Intention for one child family among new cohorts of marriage in Iran; Levels, Determinants & policy implications

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Extended Abstract

Introduction & Aims: Since 2006, the majority of provinces in Iran has experienced below replacement fertility. Tehran, the capital of Iran had the lowest fertility in the country in 2006. Hence, in 2012, Iranian policymakers, have introduced pronatalist population policies in response to the sharp fertility decline. Below replacement fertility indicates that at least a significant proportion of couples stop at one child in their life course. According to 2006 census in Iran, about 5.1% of women aged 40-44 remained with only one alive child while this rate was only 3.3% among women aged 50-54. In 1996, only 2.3% women aged 40-44 reported having one alive child and this was not different with the rate among women aged 50-54 (khalajabadi Farahani F. 2012). Similar study also showed that the probability of having single child among women aged 40 and older increases 2.6 times when their education increases from diploma to undergraduate university education. This rate among employed women aged 40 and older is 1.3 times more than housewife women. Due to willingness and propensity among women for higher education in recent years and their tendency for autonomy and economic prosperity, it is predicted that numbers of single child families increases even more in the following decades.

According to the survey of Population Transition of Iran in 2000 , except four provinces (Gilan, West Azarbiajan, Sistan & Baluchestan and Yazd), fertility ideals among marriage cohorts was only two children. This study showed that 18-22.5% of marriage cohort in Gilan, North of Iran indicated one child as ideal number of children. This rate is very high in Iranian community. Accordingly, attitudinal changes have been shown among all generations with regard to ideal number of children (Abbasi Shavazi 2009). Studies also claimed that fertility decline in Iran is not only due to availability of contraceptive methods and successful family planning programs, but also it is due to changes in socio-economic and cultural and normative attitudes.

The concept of Second Demographic Transition emerged in response to continuous reduction of fertility even after first demographic transition to below replacement level (Lesthaeghe and Van de Kaa, 1986). Second Demographic Transition is a framework for analysis of changes in partnership and reproductive behavior which has occurred in 20th century. With considerable rise in educational level, economic autonomy, ability to decision making and political power among women, in end of 20th century, women's empowerment has been considerably grown and women's empowerment is an important factor for significant change in family formation, life sequence and childbearing occurred in industrial countries since 1970s. Rise in education among women led to enhanced employment for women and they are less likely dependent to families with only one earner, hence lead to increase of childbearing expenses, When , women delay the birth of first child, they will be able to achieve higher education and get employment skills, and enhance their income from their job. This leads to increased of opportunity-cost of childbearing (McDonald, 2003). Moreover, when gender differentials between men and women are

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reduced, the concept of fertility below replacement has another meaning in micro level, so as a couple perceive that with having single child, they have had a substitute for themselves (UN Population Division, 2003). Hence, replacement fertility is mostly a theoretical threshold which is important for measuring population trends at macro level. But it in fact has no meaning for couples who construct their family. The current perspective is that below replacement fertility is likely to remain as norm.

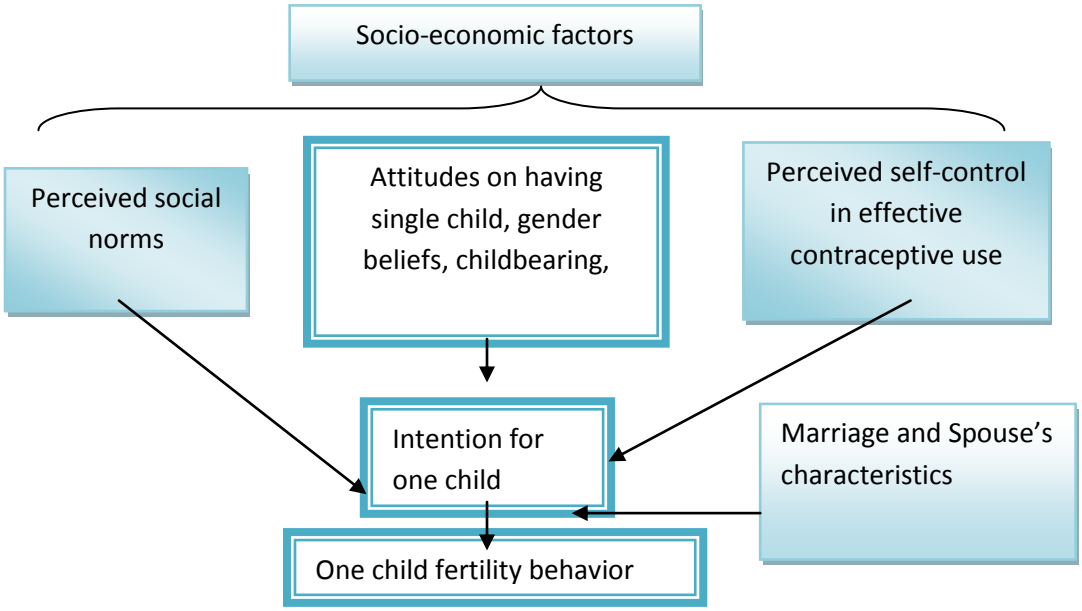
Information with regard to fertility intention can provide important information on achieved fertility level. Fertility intention in developed countries and even among generations is very near to two children. Mean number of expected children varies between 2 to 2.5 children and in most countries varies from 2.1 to 2.2 children. In European countries, 40-60% of women aged 20-24, prefer or expect to have two children. Fertility intention or expected fertility does not change regularly with socio-economic variables. Women with higher education compared to women with lower education, expect greater number of children, while due to delay in childbearing ,educated women often would have fewer children than what they expected. Hence, achieved number of children or completed family size depends to two important factors: 1. Fertility intention, 2. Delay in fertility (UN Population Division, 2003).

The aim of this paper is to assess intention of one child family among men and women and its determinants among new cohorts of marriage in Tehran and differentiated by gender. These results will have important implications for population policy and program in Iran.

Theoretical Model

The main theoretical framework leading this study is based on theory of Reasoned Action or Theory of Planned Behavior (Bandura, 1977). This theory assumes that intention for behaving is an important determinants of behavior, hence intention to have single child can be an important determinant of having single child in life course . In the conceptual framework, attitudes towards having single child is also a factor that determine behavior at micro level. At macro level, according to the second demographic transition, attitudinal changes can explain majority of changes in fertility intention and behaviors (Van de Kaa, 1997), hence attitudes of women and men towards having children, having single child, and childbearing, are important factors associate with fertility intention. Attitudes comprised of gender beliefs with regard to domestic chore division and women situation compared to men in terms of education and employment opportunities. Self efficacy in fertility control is another component of the theoretical framework which has been derived based on Socio-cognitive theory. In fact women and men with higher self efficacy in fertility control, would behave according to their fertility intention more effectively. Another component of the model is perceived social norms of having single child in view of family, community and significant others. Socio-economic factor and spouse's and marriage's characteristics are another components of the theoretical framework.

Conceptual model



Data & Method: This paper is based on the first phase of the Tehran Single Child Intention Study (TSCIS) which was conducted in July and August 2012 among men and women who attended to compulsory premarital counseling programs in Tehran. The study population was new cohort of marriage (all men and women who were about to register their marriage) in Tehran and attended to premarital courses within this program. In the first phase of the survey, 871 men and women were enrolled using a two stage cluster sampling from among those who attended to premarital counseling and screening programs in Tehran. All couples have to attend these clinics to get approval to register formally their marriage.

Cluster sampling was employed from among premarital counseling clinics in Tehran. From among 20 clinics around the Tehran, only 11 clinics provide premarital compulsory counseling services and screening tests. According to estimated daily number of clients of these clinics, sample required for this study estimated using proportional probability to size, hence a representative sample of young men and women who are about to marry were included in this study. The sample enrolled in this study was 871 men and women. Confidentiality issue and ethical aspects were considered. Data were entered using Access software and were analyzed using SPSS_v19. Bivariate and Multivariate analysis was conducted. Scales were constructed from among attitudinal statements using exploratory factor analysis.

Construct validity was evaluated by exploratory factor analysis (EFA). The Kaiser-Meyer-Olkin (KMO) and Bartlett's test demonstrated that the data was appropriate for factor analysis . Principal component analysis with Varimax rotation identified 7 factors with Eigen-values greater than 1.
Internal consistency of scales was assessed using Cronbach's Alpha Coefficient. Valid, reliable and pilot tested, self- administered anonymous questionnaire was employed to collect the data.

Factor 1 (Importance of child in marital life) including 7 items (Cronbach's Alpha Coefficient =0.879):
Factor 2(concerns of consequences of single child) including 3 items (Cronbach's Alpha Coefficient =0.739) :

Factor 3(Individualism) including 2 items (Cronbach's Alpha Coefficient=0.705)
Factor 4 (social concerns of childbearing) including 6 items(Cronbach's Alpha Coefficient =0.772) :
Factor 5 (Economic burden of childbearing) including 2 items (Cronbach's Alpha Coefficient = 0.568):
Factor 6(Idealization in childrearing) including 1 item (NA)
Factor 7(Importance of time and opportunity) includes 1 item (NA).

Dependent variable in this paper is "intention for having single-child" which represents those men and women who reported they intend to have only one child in their life course. Independent variables comprised of age, spouse's age, education, spouse's education, employment and spouse's employment, monthly expenses of household, religiosity, number of siblings, marriage characteristics, attitudes towards ideal number of children and having children, gender beliefs of men and women, gender preference, attitude towards having single child, perceived self-efficacy in using effective contraceptive methods and fertility control, perceived norms on ideal number of children.

Results: Approximately, 46% of men and women intended to have single child, while nearly 43% intended for two children, 8% for three and more children and only about 3% intend for no child. Due to high self efficacy of participants in using modern contraceptive methods, it seems fertility intentions significantly predict fertility behaviors among young generation in Tehran. Multivariate analysis showed determinants of intention for one child differ among men and women. Among men, Individualism (OR=1.34, $p<0.01$), concerns of consequences of having one child (OR=0.74, $p<0.05$), egalitarian gender beliefs (OR=4.66, $p<0.001$) and social concerns related to childrearing (OR=1.34, $p<0.001$) were determinants of intention for one child. While, among women, age (OR=1.08, $p<0.05$), social concerns related to childrearing (OR=1.11, $p<0.01$), individualism (OR=1.31, $p<0.01$), concerns of consequences of having single child (OR=0.60, $p<0.001$) and idealism in childrearing (OR=1.71, $p<0.01$) were determinants of intention for one child.

Table 1. Fertility intention among new cohort of marriage by gender (%)

Fertility Intention	**Men (n=300)**	**Women(n=279)**	**Total(n=579)**
No child	3	2.2	2.6
One child	46	44.8	45.8
Two children	41	45.5	43.2
Three children	6.7	6.8	6.7
Four children & more	2.4	0.8	1.4

Table 2. Comparing scores of attitudinal scales based on fertility intention among about to marry men and women in Tehran

Attitudinal Scale	Range	Mean score		Mean Differences	P-value
		Fertility intention			
		One child (n=245)	>one child (n=287)		
Importance of child in marital life	7-35	28.00(SD=5.89)	27.71(SD=5.89)	0.29	NS
Social concerns of childbearing	6-30	23.75(SD=4.34)	21.67(SD=4.21)	2.08	<0.001
Individualism	2-10	7.79(SD=2.08)	6.68(SD=1.99)	1.11	<0.001
Fears of consequences of having single child	3-15	8.59(SD=2.50)	10.71(SD=2.56)	-2.12	<0.001
Idealization in childrearing	1-5	4.26(SD=0.91)	3.78(SD=1.11)	0.48	<0.001
Economic problems related to child rearing	2-10	8.94(SD=1.29)	8.64(SD=1.38)	0.30	<0.01
Importance of time and opportunity	1-5	4.48(SD=0.69)	4.26(SD=0.80)	0.22	<0.001

Table 3. Multivariate analysis of determinants of intention for single child among new cohorts of marriage in Tehran

Variable	OR	CI	P-Value
Age	1.07	1.02-1.12	<0.05
Social concerns of childbearing	1.10	1.04-1.16	<0.01
Individualism	1.31	1.16-1.47	<0.001
Fears of consequences of having single child	0.68	0.62-0.75	<0.001
Idealization in childrearing	1.51	1.19-1.90	<0.01
Gender beliefs (employment and domestic Chore Division)			
-Only man work and women housewife	1.00		<0.01
-Both work but woman half time	2.51	1.47-4.28	<0.01
-Both work equally and domestic chore divided equally	1.62	0.88-2.99	NS

*OR=Odds Ratio, CI=Confidence Interval, Backward Stepwise (Wald) *N=511, Cox & Snell R Square= 0.316, Adjusted R Square =0.433*

Multivariate model of determinants of intention for single child among new cohorts of marriage in Tehran

Variable	Men*			Women**		
	OR	CI	P-value	OR	CI	P-value
Age				1.08	1.00-1.16	<0.05
Social Concerns of childbearing	1.10	1.01-1.19	<0.05	1.11	1.03-1.19	<0.01
Individualism	1.34	1.13-1.59	<0.01	1.31	1.11-1.55	<0.01
Fears of consequences of having single child	0.74	0.65-0.84	<0.001	0.60	0.53-0.69	<0.001
Gender Beliefs						
-man works, women housewife	1.00		<0.001			
-Man works, woman work part-time	4.66	1.28-9.51	<0.001			
-Both equally work out and inside home	2.22	0.93-5.29	NS			
Idealization in childrearing				1.71	1.36-2.37	<0.01
Constant	0.096		0.029	0.018		0.007

**For Men: OR=Odds Ratio, CI=Confidence Interval, Backward Stepwise (Wald),*N=262, Cox & Snell R Square= 0.303, Adjusted R Square = 0.404*
***For women: Backward Stepwise (Wald), N= 249, Cox & Snell R Square= 0.356, Adjusted R Square = 0.476*

Conclusion &Policy implications: It can be predicted that in new cohorts of marriage in Tehran, fertility will remain in a very low rate at below replacement level. According to these results, it seems that besides social concerns, greater personal and ideational factors in determining fertility intention of one-child are evident such as increased individualism and equal gender beliefs. This can be signs of transitions towards more internal control on fertility behavior in urban and developed areas of Iran which is consistent with second transition theory. These results can be employed for gender sensitive interventional programs to encourage men and women for the second child in Iran in line with recent pronatalist policies.

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