Generation Gap and Fertility Behavior: A Comparative Study of the fertility behavior in Women Born Before and after the Islamic Revolution in IRAN, Ahar City, A Case study

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Abstract: Iran's demographic transition, has been raised a lot of discussion about Iran and about the demographic situation. In this study, the views and attitudes the young generation and past generations (born before and after the Islamic Revolution) in about of topics such as fertility and family size, number of children between birth and the case is investigated. This paper is a survey. The married women 15-49 years old, Ahar (17,232 persons) of the statistical community. As a result of which 300 were selected using cluster sampling. fertility differences in the two-generation reproductive has been analyzed by used methods like compare statistics, the correlation statistic and multiple classification analysis in multiple classes. The findings suggest that, indicators of population is significantly different between the two generations. Multiple classification states, education, proportion of family, marriage and employment generation have been given the increasing role of the income has fallen into a variable with respect to revenue generation and fertility behavior will be weaker. The convergence of fertility in different regions, has been approached from different perspectives and ideas generation. This convergence has been reinforcing the changes in the family, loss and change in kinship systems and marriage of style.
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1. Introduction

Modernization programs of the 1970s, during the Islamic Revolution,and the development trends of the 1990s have so dramatic effects on the structure of Iran population that nearly 70% of the population is between the age range of 15 to 65 years. These factors have not only affected the age structure of the population but also caused the underlying cultural and attitudinal changes in different areas that can affect the future population planning.

Factors such as, fertility behavior of different generations (for a specific age group), the different factors affecting generation fertility,and then the prediction of future fertility are studied.

Iran's population has experienced many changes in the past few decades. Population mutation in Iran in the form of population transition theory has brought about much discussion around the question of demographics.

Estimates done around the fertility transition in Iran show that the total fertility rate (TFR) has reduced from 7.7 children per a woman in 1967 to 6.3 in 1977 (1999 Aghajanian and Mehryar) and the rural and urban fertility rate to 1.2 and 1.7 respectively. (Abbasi - Shavasi and Co, 2003). This rapid decline in the fertility has paved the way for numerous studies in the field of fertility trends and influencing factors (Aghajanian & Mehryar, 1999; Abbasi Shavazi, 2001,2002, 2005, 2006; Abbasi Shavazi and Mc Donald,2003). In the studies done the role of factors such as modernization, reduced death rate (Paydar Far & Moeini, 1995), and women education (Abbasi Shavazi, 2001) are discussed.

The important point of fertility decline in Iran is that all regions including all provinces, cities, and villages have such a decline. Shavazi Abbasi and his colleagues (2003) in a study of fertility transition in Iran's 18 provinces have concluded that fertility is below replacement level.

Although family planning after the revolution in the 1970's had a major impact on fertility, but it cannot be the only factor affecting the fertility cited because fertility decline experienced in Iran goes back to a time before the family planning in 1978 (Abbasi Shavazi and Co, 2003).

However, the family planning is one of the main causes of changes in family structure,their attitudes toward marriage, the number of children, and the interval between the births. This paper seeks to answer the question whether the views and attitudes of the young and the old generations (born before and after the Islamic Revolution) are different on issues such as reproductive behavior and family size, number of children and birth intervals. If different, what can justify it?

The studies done on the parents fertility or children of different generation show different fertility behavior among different generations (Roderic, 2010; Anderton and Co, 1987; Abbasi Shavazi and Co, 2003).

In these studies, the mechanism of the way fertility influenced by generational gap has been different. Modernization, cultural change, social, political and economic factors are factors affecting changes in individual attitudes about fertility behavior. Due to the role of the young in the present and future demographic changes, studying and comparing this group with the past generations has been ignored. This paper will attempt to examine the attitudes of the younger generation (the generation after the Revolution) in issues related to family size, ideal number of children and marriage age. It also wants to predict the fertility behavior of coming generation through comparing and contrasting the fertility behavior of present generation with the past one Therefore, the main objective of the present paper is to survey the gap between the attitudes of the generations before and after the revolution in reproductive behavior.

The following objectives were also investigated: Understanding the two-generation reproductive behavior based on the theoretical framework of wealth and distribution theory. Understanding the attitudes of two generations about family dimensions and number of children. Understanding their attitudes about the number of sons and the sexual preference. Understanding their attitudes about the use of fertility control methods and techniques.

2. Theoretical bases

Fertility and reproduction are essential and acceptable in all social groups. What is the center of the focus about fertility among researchers is the changes observed in fertility rates among different social groups with a wide range of other social and economic factors.

Davis and Blake (Davis and Blaik, 1956) presented the first framework about the socio-demography.

In this framework it is assumed that fertility levels in the community are directly affected by biological and behavioral factors that are affected by community members, environmental forces, socio - cultural, economic, reproductive behavior. This framework was rewritten by Bongart. The new Bongart model (1978) was divided into three categories by Davis and Blake.

Demographic transition theory is of the basic theoretical concepts that was coined by Noteshtayn. He relates transition stage to a series of social and economic changes such as undermining the customs and traditions of the past, progress in education, rational behavior, changing costs and benefits of children, the emergence of new economic role for women which are inconsistent with fertility behavior.

One of the other theories justifying fertility behavior is the theory of demand which explains fertility behavior in an economic context. Based on this theoretical framework, the fertility rate reduces when the cost of children is higher than their profit (Abbasi Shavazi, 2005). In Caldwell's wealth flow theory, there seems to be a direct relationship between family structure and fertility. Caldwell (1982) refers to two types of family structures in which the direction of the wealth flow is different among generations. In traditional societies, the wealth movement flow is from bottom to top while in the developed countries, the family structure is organized in such a way that the movement of wealth is from top to bottom. In these societies, parents are expected to provide economic facilities for the children.

Tests conducted on the theory of intergenerational wealth emphasize the changes created in the roles of children and the level and rate of fertility change. McDonald (2003) believes that fertility reduction is due to the changes in women's status within the family,changes in the couple relationships, and increase in women's genuineness in society in contrast to the traditional patriarchal. Economic change and modernization as determinants of fertility transition were criticized by some researchers, including Leseghe and Wilson (Lesthaeghe and Wilson, 1986). The studies done in Europe and developing countries about fertility show that fertility reduction is because of the spread of new theories and models. Now the question is that " Are they the only causes of fertility reduction or they should be with other social changes?" (Casterline, 2001). Studying theories related fertility shows that none of

the theories alone is able to explain the fertility behavior of different community. In the present study, to determine fertility behavior of the two generations, Caldwell wealth flow theory and the distribution theory have been used.

Basically, studying generation gap and the attitudes of different generations has been done around social, political and cultural environment while very little has been done in the domain of sociology and demographics.

Based o the theoretical framework of the studies done about the fertility behavior of different generations, the main hypothesis of the present research is presented in this way: the attitudes of the generations before and after the revolution about fertility treatment may vary because of the differences exist between fertility average of different generations. It should be noted that, in this study, the fertility behavior is studied in the area of the number of children, marriage age, first pregnancy age, using contraceptives, and contraceptive devices.

3. Methods and instrument

This paper is the result of a survey research. The married women ranging from 15-49 years old in Ahar (17,232 people) make up the population of the research. According to Morgan table, the sample size is estimated to be 300 and the sample was obtained through using cluster sampling. Data collected were collected through researcher made questionnaire. Using Cronbach's alpha coefficient, the questionnaire reliability is 0.87. The methods of medians and coefficient comparison were used to find out the differences in fertility between the two generations.

4. Results

4.1. Marriage Age

Marriage age as one of the variables affecting fertility is considered to be as the main determinants of fertility. In addition, marriage age affects the number of years that a woman has chance to have children. In (Table 1), the average marriage age in various education degree, income levels, employment status, family ties, and generation attachment are compared and contrasted. The average marriage age in different education degrees is significantly different (F = 22.21 **). The lowest average marriage age is allotted to the women with no education (16.7) and the highest one to the women with a bachelor's degree or higher (24.9). Based on different levels of income, there is significant difference in the average marriage age (F = 4.46 *). The highest average marriage age goes to the women belonging to the lowest income level (21.14) and the lowest to the women with high income (18.95). The average marriage age varies according to both employment status and the family ties. Marriage age in housewives (19.25) and employed women (23.25) is significantly different (t = 56.7 **) Similarly, the average marriage age in women family ties with their husbands is significant different (t = 3.1 *) from the women with no family ties with their husbands.

4.2. The differences between the marriage age and the age at first pregnancy

Indices around the difference between the marriage age and the age at first pregnancy were compared in (Table 1). They were compared based on variables such as education degree, income, employment status and showed no significant difference. The indices of average marriage age and the age of first pregnancy in women who have a relative ties with their husbands and the women who have no family ties with their husbands were, 2.4 and 1.9 years respectively. However, the same indices in the case of those having family ties with those having no family ties are significantly different. (t = 2.27 *).

4.3. Use of family planning Tools

According to Friedman (1961: 54) Many researchers believe that the universal adoption of contraception is the most important variable reducing fertility in Western countries. The results of studies on comparison of the tools used in family planning with different variables showed that there is no significant difference between the tool used and either family ties or income level, however, it is significant in the case of education and employment status.

Among the women in different education degree, the illiterate women more than the others use tubal ligation. Women with primary and secondary education use pill and Audi most. At the diploma level, they use tablets and Audi most while those with postgraduate diploma use pill and condoms more. Pills and Audi are used more among those with bachelor degree or more. Chi-square and Cromer test also show such significant differences. (2 = 63.05 ** Cramer's V = 0.28 χ).

4.4. Ideal number of children desired and sex preference

In (Table 1/ In the end of text) women attitudes toward the two issues: the number of children desired and sex preference have been investigated. The tendency to have more than 3 children increases as education degrees decreases among the women.

chi-square and Cromer test also confirm the significant difference exist between variables such as sex preference and education degree. The finding in (Table 1) shows no significant difference between the number of children and the other variables. Sex

preference is another variable that was analyzed. The tendency to have son child increases as their education level decreases.

4.5. Generation tie

Because of its importance, generation tie was analyzed as a separate variable. The results showed that the average marriage age of the women before and after the revolution is 19 and 21.4 respectively. T-test also showed significant difference between the two groups on the basis of age variable (t = 4.8 *).

Comparison of prevention methods also showed that a greater percentage of women from pre-revolutionary generation made use of condoms, pills and Audi, but those from after revolution used pills instead. In the case of the ideal children, 16 percent of women from the generation before the revolution tended to have only one child and 18 percent tended to have more than four children while in the case those from generation after revolution they are 22.9 and 3.1 respectively.

For the sex preference variable, 20% of women from the former generation and 14 percent from the later generation tended to have son. Comparison of all demographic indicators showed a significant difference in the two generations. In order to get more precise information about the generation tie and its impact on the fertility behavior, it was used as dependent variable. (Table 1) In terms of education levels, no significant differences were observed in the generations before and after the revolution. Illiteracy rate was reduced after the Revolution. But the survey shows that the percentage of housewives job after the revolution was on the rise. The number of marriages without family ties was greater before revolution than after revolution.

One of the tenth government programs in Iran is the Mehr plan aimed at securing the future of the young employment and housing. According to that plan, every baby born in Iran in 2011and later is awarded one million tomans Accordingly, the question arises “Is the government plan designed to increase birthrate successful or not?” This study shows the attitudes of two generations from two aspects: The rate of their agreement with government support plan and one- million toman financial help (Table 2 / In the end of text).

The findings showed that there is no significant difference between the two generations in terms of the government support plan, but in the case of one-million tomans, significant difference was observed, that is, the later generation showed more agreement than the former one. It can be concluded that those followed self family planning were against the plan while those who were careless about family planning showed more agreement.

points to the effects of the generation tie on fertility behavior through controlling the other variables. Multi-class analysis method was used to study the effects of the generation tie on fertility behavior. In this study, the determination coefficient explains 2.6 percent of the variance in the dependent variable which increases by adding any new variable.. Analysis of variance showed significant difference between the two groups at education level. Multi- level analysis indicates that adding the marriage age makes no change in structure, but by adding education, relation between generation tie and fertility gets stronger while in the presence of the income variable, the relation gets weaker. One can conclude that education, the family tie, marriage age and employment status have increasing effect on the generation tie while income has decreasing effect. It is because of the fact that by adding income variable, the relation generation tie and fertility behavior weakens.

5. Conclusion

The question ”will fertility decline continue in the future or not? makes the foundation of the present article. This article aims at drawing a clear future fertility landscape for the coming generation by analyzing the present demographic theories and attitudes of the two generations in terms of the characteristics of the late generation and social and cultural environment that has long been dominated by the first generation. The results showed that the lowest average marriage age (16.7) is dedicated to the women with no education and the highest average (24.9) to the women with a bachelor degree or higher.**.** Based on different levels of income, there is no significant difference in the average age of marriage (F = 4.46 *). The highest average age of marriage is for women belonging to the lowest income level (21.14) and the lowest was observed in women with high income (18.95). These findings are in agreement with Aghajanian studies (Aghajanian, 1991), Buddy Perry Peri) (Badi, 1993; Abbasi et Shavazi ¬ (& Co, 2003 Abbasi-shavazi)

Caldwel (1982) also believes that education variable with decrease in income, increase in expenses, and changes in people attitude about different things affect fertility and education level affect using pregnancy prevention tools

(2 = 63.05 ** Cramer's V = 0.28 χ). Statistically significant chi-square and Cramer test also show the significant difference between desired children and education levels 2 = 63.05 ** Cramer's V = 0.280). Because of its importance, generation tie was analyzed as a separate variable. The results showed that the average marriage age of the women before and after the revolution is 19 and 21.4 respectively.

Table 1: Distribution of respondents in terms of the components of reproductive behavior : Distinction belongs to a generation, education levels, income, employment status, and consanguinity.

Generation tie		generation family		mployment status		Income Amount			Education Lev.						
After the revolution	Befor the revolution	Nonrelative	Relative	House Worker	Occupying	Up	Averege	Low	Licentiate & up	Diploma	Secondary & Diploma	Primary & guidance	Illiterate		
19	21.4	20.8	18.89	19.25	23.25	18.95	20.6	21.14	24.09	22.1	20.3	18.9	16.7	Marriage Age Mean	
130	166	229	67	214	80	65	188	43	43	47	86	88	32	**N**	
T=4.8**		T= 3.1*		T=56.7**		F= 4.46*			F= 22.21**					Sig.Test	
1.74	2.29	1.9	2.4	1.9	2.12	1.84	2.07	2.29	1.95	1.85	1.84	2.16	2.8	Mean Difference	
129	165	228	66	79	213	64	188	42	42	47	86	87	32	**N**	
T=2.8*		T= 2.27*		T=1.05 ns		F= 0.894 ns			F= 2.14 ns					Sig.Test	
0.0	0.8	0.7	0.0	0.0	1.8	0.0	0.8	0.0	0.0	3.1	0.0	0.0	0.0	Vasectomy	Family Planning Tools(%)
0.0	28.7	16.3	20.8	19.4	12.3	22.9	18.1	3.8	7.4	6.2	11.1	15.9	60	Tubectomy	
13.9	13.1	14.4	10.4	11.1	19.3	10.4	12.6	23.1	18.5	28.1	13	9.5	0.0	Condom	
45.6	21.3	29.4	35.4	34	22.8	35.4	30.7	23.1	29.6	25	38.9	34.9	12	Tablet	
1.3	0.0	0.7	0.0	0.7	0.0	0.0	0.8	0.0	0.0	0.0	1.9	0.0	0.0	Norplant	
16.5	23	20.3	20.8	19.4	22.8	14.6	21.3	26.9	22.2	18.8	18.5	22.2	20	IUD	
10.1	3.3	7.2	2.1	8.3	0.0	6.2	6.3	3.8	3.7	0.0	7.4	7.9	8	Injection	
12.7	9.8	11.1	10.4	6.9	21.1	10.4	9.4	19.2	18.5	18.8	9.3	9.5	0.0	Other Methods	
^{2}=39.134** χ Cramer's V=0.441		^{2}= 3.52 ns χ Cramer's V=0.132		^{2}=20.23* χ Cramer's V=0.317		^{2}=11.32 ns χ Cramer's V=0.168			^{2}=63.05** Cramer's V=0.280 χ					Sig.Test	
22.9	16.2	21.7	10.3	18.9	20.3	12.1	22	17.1	18.6	19.6	25.6	16.9	8.8	One Child	Ideal Child(%)
70.2	50.9	58.3	63.2	61.8	51.9	66.7	55	68.3	69.8	54.3	61.6	64	35.3	Two Child	
3.8	15	10	10.3	10.1	10.1	9.1	12	2.4	4.7	15.2	3.5	9	29.4	Three Child	
3.1	18	10	16.2	9.2	17.7	12.1	11	12.2	0.7	10.9	9.3	10.1	26.5	Four & More	
^{2}=29.73** χ Cramer's V=0.316		^{2}= 5.57 χ Cramer's V=0.137		^{2}=4.65 ns χ Cramer's V=0.125		^{2}=7.617 ns χ Cramer's V=0.113			^{2}=35.59** Cramer's V=0.200 χ					Sig.Test	
4.6	8.9	7.8	4.4	6	9.9	4.5	7.3	9.3	9.3	10.4	10.5	2.2	2.9	Tendency to Girl	Gender Prefrence(%)
14.5	20.7	16.8	22.1	18	17.3	28.8	13.1	23.3	16.3	14.6	14	24.7	17.6	Tendency to Boy	
80.9	70.4	75.4	73.5	76	72.8	66.7	79.6	67.4	74.4	75	75.6	73	79.4	Unimportant to Gender	
^{2}= 4.610ns χ Cramer's V=0.124		^{2}= 1.67 ns χ Cramer's V=0.075		^{2}= 1.36nsχ Cramer's V=0.068		^{2}= 9.88* χ CC=			Sig.Test ^{2}= 9.812 Cramer's V=0.128 χ						
		79.3	20.7	60.4	39.6	21.9	62.1	16	15.4	19.5	18.9	29	17.2	Befor the revolution	Generation tie
		74.3	25.2	89.1	10.9	22.1	65.6	12.2	13	11.5	41.2	30.5	3.8	After the revolution	
		^{2}=0.845 χ Φ =0.053		^{2}=30.641 ** χ Φ =0.321		^{2}= 0.874 ns χ Cramer's V=0.054			Sig. Test ^{2}= 27.74** Cramer's V= 0.304 χ						

[1]Age difference in marriage age at first pregnancy. * Significant at 5% level. Significant at 1% ns. No significant

Table 2: Distribution of respondents according to their relative agreement or disagreement with Financial support from the government and pay a million dollar projects in the field of resolution enhancement given birth to a generation

Agreeable to Pay a Million Dollar Project					Agreeable to Financial Support			Generation tie
Total	Agreeable	InIdea	Apposed	Agreeable	Total	No	Yes	
100/0	37.3	50.9	10.1	1.8	100/0	68	32	Be.Revolution
100/0	0.0	11.5	24.6	63.8	100/0	67.9	32.1	Af.Revolution
300	3	32	118	146	300	204	96	Total
χ^2 = 25.931** Cramer's V= 0.294**					χ^2 = 0.001ns Φ =0.001ns			Sig.Test

Table 3: Impact of generational belonging on the reproductive behavior of the control variables

Beta	Beta6	Beta5	Beta4	Beta3	Beta2	Beta1	
0.162	0.189	0.176	0.182	0.179	0.162	0.162	Generation
0.143	0.149	0.154	0.152	0.155	0.182		Marriage age
0.170	0.127	0.148	0.103	0.116			Education
0.132	0.119	0.122	0.117				Relative
0.078	0.141	0.144					Income
0.062	0.059						Job
	0.101 2.610 0.003	0.099 2.817 0.002	0.081 2.78 0.004	0.068 2.601 0.009	0.057 4.377 0.002	0.026 7.849 0.005	R2 F Sig

T-test also showed significant difference between the two groups on the basis of age variable (t = 4.8 *).

In the case of sex preference and the tendency to have son child, it has been found that women from the former generation more than those in the latter generation tend to have son child. One of the purposes of the present study was to find out the impact of financial issues on the number of children. The findings showed that there is no significant difference between the two generations in terms of the government support plan, that is, their fertility behavior is beyond financial issues.

Another purpose was to see the impacts of generation tie on fertility behavior by controlling the other variables. To do so, Multi-class analysis method was used. Variance analysis showed that there is significant difference between the two generations as far as the education is concerned while multi – class analysis showed that education, family ties, marriage age, and employment status all have increasing impact on generation ties. However, income has decreasing impact.

The present study showed that the opinions of the two generations which experienced different fertility behavior, now, have become closer to each other.

It seems that the future fertility plan in Iran should be set based on regional and local issues because the great differences in culture, language, religion, and tribes make fertility behavior different in societies.

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