Factors Influencing Child Bearing with Reliance on Birth Policies in Ahwaz City

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Current work was done aiming at investigating factors influencing birth policies in Ahwaz city. It was conducted using survey method and cluster sampling method. Statistical population included all employed women above 19 years in Ahwaz city. Sample size was considered as 384 with significance level 0.05 percent. Questionnaire was used as data collection tool, reliability of which was confirmed as 0.814 using Cronbach's alpha coefficient. Its validity was confirmed by the experts. Data were annualized using SPSS software at descriptive and inferential statistics level. Descriptive data showed 36 percent of respondents had three pregnancy experiences and pregnancy with about 35 percent led to birth of 3 children. Also, Pearson and Spearman correlation coefficients were used for testing hypotheses. Results for Pearson correlation coefficient showed there is significant relationship between marriage age, demographic policies by the government and religious tendencies and tendency to fertility and childbearing, while no significant relationship was observed between employment age and economic status of the household and tendency to forming family and fertility.

Key words: Fertility, Reproductive age, Marriage age, Demographic policy.

Demographic policies and measures were initiated since last decades of 18th century with introduction of "Malthusian" Perspective to family planning. In Iran, demographic policies based on family planning were adopted and implemented within two steps. First step was started before Revolution since 1962 when the government paid attention to demographic issues for the first time. In the third construction plan, the population issue was also considered and a department known as Family Planning and Health was founded in the time's Ministry of Health in 1967. After Islamic Revolution, family planning programs were forgotten for a short time and it led to rapid increase in births and population growth (Kalantari, 1999). Again in the years after the imposed war, i.e. since 1989, demographic control was considered

and various approaches for population increase and decrease have been adopted up to now. After introduction of demographic control issues and necessity for family planning by different political and academic circles, some agreed and some disagreed. Demographic control and family planning can be distinguished. Demographic control deals with macro issues of population increase and its socioeconomic complications, while family planning considers birth increase in terms of personal aspect and at family level. Family planning is associated to the main part of fertility health and key for health of mothers, children, families and communities. Birth control means planning for the number of birth in the family. World Health Organization's specialized committee in 1971 defined family planning as follows: family planning is way of thinking and living which is voluntary based on the knowledge, insight, and decision making by individuals and couples for promoting family health and welfare,

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thus it influences national social development. Family planning has considerable benefits for human health and development. It is clear that family planning at family scale is a means for birth spacing and determining the number of children. At social scale, it is one way for establishing balance between socioeconomic development and population growth. One of the dominant beliefs in the society is that family planning is only a tool for demographic control and its aspects for health promotion which is highly important at family and society level are ignored. It is clear that increasing the community's awareness on unwanted and high risk pregnancies on health of mother and child, family and community are the main activities in this program. Also, family planning program should provide information and tools necessary for decision making on the number and spacing between children for the community. This program save life of women and children by preventing from unwanted and unplanned pregnancies which may lead to abortion. In this work, factors influencing child bearing with reliance on birthpolicies in Ahwaz city are investigated, and factors such as marriage age, employment age, demographic policies, religious tendencies and economic status are studied.

Statement of Problem

According to the latest statistics from Statistical Center of Iran from seventh population and housing census on 2011, total population of Iran is 75 million and 149 thousand and 669 people, and 5-year average growth rate for 2006 - 2011 is 1.29 percent, while 5-year average growth rate for 1996 - 2006 was 1.62 (Statistical Center of Iran). Of course, population growth rate increased early in Islamic Revolution for various reasons so that population growth rate reaches to about 4 percent within 10 years; however, it declined later so that it is now 1.2 percent. Declining rate of population growth and reducing household size from 4.03 in 2006 to 3.55 in 2011 is a warn for the future of the country in economic development and growth. Today, the number of population and its related characteristics are foundations for any planning and policymaking. Difficulties caused by the population explosion in the early Sixties, is a tangible example of the sufferings that were developed due to uncontrolled growth of the population and its uncontrolled growth, because the generation born on that decades after revolution

imposed severe pressure on the society along with various stages of the life, and had less per capita. On the other hand, it seems the main outcome of demographic control according to its opponents is the issue of population aging that these days is expressed with the most concern. Population aging is one of the problems which threaten populations with low growth rate. Weakening the country against foreign threats and the lack of economic growth and labor market boom are among the most important consequences of population aging. It causes many concerns in the developed countries and demographic control measures have been eliminated. Although population aging is not probable in our country in the near future, each of both seemingly contradictory policies will be useful and effective if they are applied in due time with optimal conditions. If they are implemented without planning regardless of social requirements and priorities it will be problematic, because population increase acts as a double-edged sword; as it may lead to economic boom and increased political power, it also may prevent from optimal resource allocation and weakens the community by creating poverty and deprivation. Population of each country varies by fertility and birth rate and immigration. The number of births per each year depends on the fertility rate and the number of women at reproductive age (age structure of the population). Fertility rate is function of the cultural, social and economic situation of the community. The most important factors influencing fertility rates include increased literacy rates and educational levels of women, increased marriage age and reducing infant mortality rates, rising cost of education, and cost of raising children. Thus, current work aims at investigating factors influencing women fertility such as marriage age, employment age, demographic policies, social status and religious tendencies in Ahwaz city.

Significance of Study

Child bearing is considered as a unique factor for increasing and changes in family population at macro, regional, national and even global community level, thus understanding the factors influencing child bearing as main points of natural growth and change in family size may play significant role in adopting proper birth control programs and policies.

If suitable balance is not established

in different economic and social axes and familydemographic changes and decision making on its major element, i.e. child bearing, the development programs and models predicted for the community would be ineffective. Population growth is considered as one of the economy factors and population is important in economic growth in various aspects, however, demographic constructs in terms of volume and population quality and demographic construct composition such as technical construction, gender construction and population distribution in the country are much important. According to 2006 census, total fertility rate was 1.8 children for each mother and population growth of the country was 1.62. The country's average population growth during 2006 to 2011 was reported as 1.29 in census 2011. The population gradually enters aging period due to fertility decline and increased life expectancy and morality rate reduction, which will have many consequences such as reduction population at labor age, gradual increase in foreign immigrants, etc. this condition requires planning and providing solution for exiting the crisis. Considering the mentioned cases and necessity for considering factors influencing child bearing, current work aims at investigating factors influencing child bearing in Ahwaz city.

Purpose of Study

General purpose of the study is investigating and identifying factors influencing child bearing with reliance on birth policies in Ahwaz city.

Review of Literature

Rezaee (2008) in his work entitled Socioeconomic Factors Influencing Women Fertility (15-49 years) in Baghmolk City found increasing age of couples, increasing women literacy, increasing children education cost, development of health service networks, reduction of child mortality rate and development of family planning programs are the major factors affecting fertility reduction in this city.

Sharifian (2007) in his work entitled Effect of Women Employment on Power Pyramid in Family in Dareshahr City found direct relationship between women employment and increased power of their decision making in determining the births, so that employed women had more right and power for decision making on the births.

In a study by Ghazi Tabatabaee et al. (1999) on 574 male students and 473 female students at ages 16 - 19 years studying in grades 1 - 4 in high schools of Shiraz city it was found marriage institution is highly set by religious rules both in the culture before and after Islam in Iran. These rules no only do not define purpose of the marriage, but also specify the number and type of people to whom one can marry.

Eslamipour (1994) conducted a study entitled Fertility Rate Estimation Based on Limited Information and Its Relationship with Socioeconomic Variables in Fars Provinceand found the higher is marriage age and educational level, fertility rate is lower.

Mehriar (1991) in his research collection entitled *Fertility Correlations in Iran* studied a sample of mothers for estimating living birth and following practical results were obtained.

Togandeh (1998) investigated effect of women employment on fertility in urban areas of Nigeria. He discussed that women employment has no continuous negative impact on fertility in Africa as it is in advanced countries due to two reasons. First, wide organization of family in Africa prepares mothers for nurturing various numbers of children. Second, with patriarchal structure in most African societies, women are less willing to talk about making a decision about the number of children they want; it is because of control of their husbands or relatives of the husband in the reproductive process (Shiri, 2009).

Caldwell (1976) considered reason for reduced fertility as associated to nuclear form of the family (changing families from extended form including parents and married and single children to couple families) and intergenerational wealth flows (i.e. what is the wealth flow of the family, if the parents are working and children are using) from the parents to the children. This flow was previously from children to parents.

Krishnan et al. (1971) in a study entitled Fertility Pattern in Canada (1979) found similar pattern between current lower rates and generation rates. His study was focused on national information from 1971 census. It should be noted rapid reduction was observed since 1961 in the number of children in Canada. He mentions factors relation to general reduction in fertility pattern are absolutely associated to economic considerations,

role of women, contraceptive theoretical and practical performance, increasing marriage age, abortion, changing norms and values on child bearing, and different structural components (parts) in the society (education, residence, labor force participation, nationality, ethnicity, etc.).

Research Question

What are factors influencing child bearing with reliance on birth policies in Ahwaz city?

Research Hypotheses

- 1. There is significant relationship between marriage age and tendency to fertility.
- 2. There is significant relationship between employment age and tendency to forming family and fertility.
- There is significant relationship between demographic policies and tendency to child bearing.
- 4. There is significant relationship between family economic status and tendency to child bearing.
- There is significant relationship between religious tendency and child bearing tendency.

Theoretical Framework

According to Davis and Blake, three classes of factors affect fertility: factors which influence during fertility period on exposure to intercourse, i.e. factors related to sexual intercourse, such as marriage age, celibacy and divorce rate, voluntary and involuntary refusal. Variables related to conception of such as fertility, use of contraceptives and sterilization system. Third classes of intermediate variables are factors which affect delivery such as voluntary and involuntary abortion (Davis and Blake, 1965). Thus, following hypotheses is proposed:

There is significant relationship between marriage age and tendency to fertility.

Also, considering fertility economic theory proposed by Leibenstein which is an economic approach to fertility, following hypothesis is proposed. This theory attempts to determine factors influential in the optimal number of births in the family.

There is significant relationship between employment age and tendency to forming family and fertility.

Based on Gary Becker's theory, decisions of families about child bearing can be studied

like economic analysis logics, thus following hypothesis is proposed:

There is significant relationship between family economic status and tendency to child bearing.

Considering Easterlin theories in social aspect, he believed in addition to economic indexes there are also other components such as literacy, religion and taste of people which affect fertility behavior. Introducing social factors besides economic factors made Easterlin theories more comprehensive than other theories. Thus, following hypotheses are proposed:

There is significant relationship between religious tendency and child bearing tendency.

There is significant relationship between demographic policies developed by the government and tendency to child bearing.

Methodology

Survey method was used in the current research. Today the most common method in social sciences is survey. In survey, the author selects a sample of the population and gives them a standardized questionnaire. It can be used for descriptive, explanatory and exploratory purposes. Analysis unit in this method is the person.

Data Collection

Questionnaire was used for data collection. In survey methods, data can be collected through various techniques such as interview, questionnaire and observation, and several methods are used in most studies. However, questionnaire is the best techniquefor the current work, since using this technique allows collecting wide data at a short time (*Earl* Babbie, 2006).

Validity and Reliability

Face validity of the questionnaire was confirmed by faculty supervisor and consultant. Validity means agreement between test score with trait and characteristics for which the test is made (Karami, 2006).

Cronbach's alpha method was used and it was calculated using SPSS software after preliminary test and entering data of 40 questionnaires. It was reported as 0.716, which is acceptable. Cronbach's alpha coefficient in effect varies from minimum 0 to maximum 1. Cronbach's alpha coefficient above 0.7 is acceptable, reliability means the extent to which the results of test can be trusted. If a test is run consecutively with

short intervals on a group of people, the obtained results should be relatively similar. In other words, reliability of a measurement tool refers to the tool's accuracy (Karami, 2006).

Data Analysis

Following data collection and collecting questionnaires, the codes were recorded and recorded figures were used for analysis by SPSS software.

Data analysis was done at two levels: descriptive and inferential statistics. At descriptive statistics level, diagram and table, distribution of frequencies, percentage, and mean of scores were used. Correlation statistical tests such as Pearson and Spearman were used at inferential statistics level.

Definition of Terms and Variables Fertility

Fertility is defined as the actual number of living births in a single population per year. Fertility as actual number of living birth is a concept which differs in demographics with fertility capability defined as potential ability for biologic reproduction. The main factors affecting fertility in a population include marriage age, access to contraceptive tools, and ideas about family size. One of the characteristics of urban and industrial communities is decline in fertility which has important economic and social consequences for the labor force size in the future (Turner, 1991). Age

It is the number of complete years from the moment of birth until the age of research. The figure stated by the respondent is considered. This variable is measured at the interval scale.

Childbearing Ages

All ages that there is menstruation for woman and she can be pregnant if she has husband.

Marriage Age

Average age of having spouse and marriage which is obtained through sum of multiplying number of marriage and age by total marriages at the same year. It should be said the age has significant role in fertility, since if people in a certain community have delay in marriage age, they would have limited fertility opportunity (Jahanfar, 1997).

Demographic Policies

The collection of thoughts and decisions of formulated programs in relation with demographic

issues or matters by the government for reaching specific goal which allow relative welfare is called demographic policy (Jahanfar, 1997).

Statistical Population

The population was consisted of all employed women above 19 years who were living in Ahwaz city during conducting this study. Statistical population includes a collection of society people which have one or more shared feature, a sample of which is the society representative (Mansourfar, 1997).

Sample Size

The samples were taken as cluster sampling and the sample size were calculated by Cochran formula as 384 subjects with 0.05 errors.

In order to have a sample as representative of the population under study and generalize results to the statistical population, the first step is determining sample size. Considering sample size determination accurately and scientifically is one of the major steps of the research, it is often specified based on Cochran formula:

$$n = \frac{T^2 \mathbf{n} / d^2}{1 + 1/N T^2 \mathbf{n} / d^2 - 1}$$

Sampling Method

Cluster sampling was used due to lack of accurate statistics about employed women in Ahwaz city. Cluster sampling does not require making framework for the whole population, which is a costly and difficult task.

Thus, the main point in cluster sampling is that there is no need for list of all elements which constitute final sampling units, rather only the list of all clusters should be determined (Baker, 2008).

Findings

In order to test hypothesis, Pearson and Spearman correlations were used for relative and ordinal levels of research variables. Relative scale is the greatest type of scale and its range includes all operations which can be done in nominal, ordinal and interval scales. There is absolute zero in relative scale. Variables that zero points can be identified in them can be measured at relative level. Most variables not only can be classified, but also represents a type of relationship. The relationship is often as higher, larger, smaller, more difficult, easier, and like that. Statistics which are used for ordinal scales include range, Taua-Gamma, Kendalls Tau and Spearman's Rho. Pearson

Correlation Coefficient is a parametric method which is used for data with normal distribution or large number of data. Id data are in small number or their normality assumption is not logical, Spearman correlation coefficient is used. The correlation coefficient which is calculated based on rank of data is calculated by Spearman.

H1: There is significant relationship between marriage age and tendency to fertility.

As observed in table, since obtained significance level (sig = 0.035) is smaller than sig. level (0.05), the hypothesis is supported and null hypothesis is rejected. That is, there is significant relationship between marriage age and tendency to fertility. Also, Pearson correlation coefficient is -0.108. It is a negative value, i.e. child bearing

Table 1. Pearson correlation coefficient results

	Fertility	Marriage age
Pearson correlation	1	108*
Sig. level		.035
No.	384	384
Pearson correlation	108*	1
Sig. level	.035	
No.	384	384

^{*.} Correlation is significant at the 0.05 level (2-tailed).

Pearson correlation coefficient is 0.026.

H3: There is significant relationship between demographic policies developed by the government and tendency to child bearing.

As observed in table, since obtained significance level (sig = 0.038) is smaller than sig. level (0.05), the hypothesis is supported and null hypothesis is rejected. That is, there is significant relationship between demographic policies developed by the government and tendency to child bearing. Also, Spearman correlation coefficient is

Table 2. Pearson correlation coefficient results

	Fertility	Employments age
Pearson correlation	1	.026
Sig. level		.605
No.	384	384
Pearson correlation	.026	1
Sig. level	.605	
No.	384	384

reduces by increasing marriage age and vice versa.

H2: There is significant relationship between employment age and tendency to forming family and fertility.

As observed in table, since obtained significance level (sig = 0.605) is larger than sig. level (0.05), the hypothesis is not supported and null hypothesis is supported. That is, there is no significant relationship between employment age and tendency to forming family and fertility. Also,

Table 3. Spearmen correlation coefficient results

	Fertility	Demographic policies
Spearman correlation	1.000	.458
Sig. level	-	.038
No.	384	384
Spearman correlation	.458	1.000
Sig. level	.038	
No.	384	384

0.458.

H4: There is significant relationship between family economic status and tendency to child bearing.

As observed in table, since obtained significance level (sig = 0.144) is larger than sig. level (0.05), the hypothesis is not supported and null hypothesis is supported. That is, there is no significant relationship between economic status and tendency to child bearing. Also, Pearson correlation coefficient is 0.075.

Table 4. Pearson correlation coefficient results

		v17	v21
v17	Pearson Correlation	1	.075
	Sig. (2-tailed)		.144
N	N	384	384
v21	Pearson Correlation	.075	1
	Sig. (2-tailed)	.144	
	N	384	384

H5: There is significant relationship between religious tendency and child bearing tendency.

As observed in table, since obtained significance level (sig = 0.001) is smaller than sig. level (0.05), the hypothesis is supported and null

hypothesis is rejected. That is, there is significant positive relationship between religious tendency and child bearing tendency. Also, Spearman correlation coefficient is 0.165.

Table 5. Spearman correlation coefficient results

	Fertility	Religious tendency
Spearman correlation	1.000	.165**
Sig. level		.001
No.	384	384
Spearman correlation	.165**	1.000
Sig. level	.001	
No.	384	384

^{**.} Correlation is significant at the 0.01 level (2-tailed).

DISCUSSION

Current work was done aiming at investigating factors influencing birth policies in Ahwaz city. It was conducted using survey method and cluster sampling method. Statistical population included all employed women above 19 years in Ahwaz city. Sample size was considered as 384 with significance level 0.05 percent using Cochran formula. Questionnaire was used as data collection tool, reliability of which was confirmed as 0.814 using Cronbach's alpha coefficient. Its validity was confirmed by the experts. Data were annualized using SPSS software at descriptive and inferential statistics level. Descriptive data showed 36 percent of respondents had three pregnancy experiences and pregnancy with about 35 percent led to birth of 3 children. Also, Pearson and Spearman correlation coefficients were used for testing hypotheses and following results were obtained:

There is significant relationship between marriage age and tendency to fertility. It is consistent with finding by Rezaee (2008). In his work entitled Socioeconomic Factors Influencing Women Fertility (15-49 years) in Baghmolk City he found increasing age of couples, increasing women literacy, increasing children education cost, development of health service networks, reduction of child mortality rate and development of family planning programs are the major factors affecting fertility reduction in this city. Also, it is consistent

finding by Eslamipour (1994). He conducted a study entitled *Fertility Rate Estimation Based on Limited Information and Its Relationship with Socioeconomic Variables in Fars Province* and found the higher is marriage age and educational level, fertility rate is lower. It is also consistent with findings by Krishnan et al. (1971) in a study entitled Fertility Pattern in Canada in 1979.

Significant relationship was not found between employment age and tendency to fertility. It is not consistent with the work by Sharifian (2007. In his work entitled Effect of Women Employment on Power Pyramid in Family in Dareshahr City he found direct relationship between women employment and increased power of their decision making in determining the births, so that employed women had more right and power for decision making on the births, while it is consistent with work by Paydarfar (1975). In his survey work, he considered such variables as job, ownership, literarcy and attitude in Fars Province and found there is inverse relationship between fertility and socioeconomic status in urban areas, while it is direct relationship in rural and tribal areas. That is, fertility is increased by improvement in socioeconomic status in rural and tribal areas. Also it is consistent with findings by Togandeh (1998). He investigated effect of women employment on fertility in urban areas of Nigeria. He discussed that women employment has no continuous negative impact on fertility in Africa as it is in advanced countries due to two reasons.

There is significant relationship between demographic policies provided by the government and tendency to fertility. It is consistent with finding by Rezaee (2008). In his work entitled *Socioeconomic Factors Influencing Women Fertility (15-49 years) in Baghmolk City* he found development of family planning programs is one of the major factors affecting fertility reduction in this city.

There is no significant relationship between family economic status and tendency to fertility. It is consistent with finding by Ajami (1976). His work was conducted in 6 villages of Fars province. It is also consistent with findings by Mansourian (1978). This study shows importance of socioeconomic status as effective factor on fertility of rural households.

There is significant relationship between

religious tendency and tendency to fertility. It is consistent with findings by Ghazi Tabatabaee et al. (1999). His work was conducted on 574 male students and 473 female students at ages 16 – 19 years studying in grades 1 – 4 in high schools of Shiraz city it was found marriage institution is highly set by religious rules both in the culture before and after Islam in Iran. It is also consistent with findings by Krishnan et al. (1971) in a study entitled Fertility Pattern in Canada in 1979. He showed attributed characteristics (religion, ethnicity, mother tongue, placeof residence) has significant effect on live born children and indirect effect is achieved due to intermediate variables.

Recommendations

- 1. Considering confirming relationship between marriage age and tendency to fertility, it is suggested educational organizations provide programs so that adolescents and young people learn necessary skills for marital life, and get marry with having these skills at due time. It will cause that couples have more years for child bearing with observing its health principles.
- 2. Considering rejection of relationship between employment age and tendency to forming family and fertility in Ahwaz city, it is suggested authors investigate this relationship in other statistical communities.
- 3. Results showed there is significant relationship between demographic policies provided by the government and tendency to child bearing. Thus, it is recommended marriage is facilitated by cooperation inter and outside sectors, so that concerns of the young people about marriage is reduced by observing successful experiences of their peers and avoid delay in marriage.
- Results showed there is no significant relationship between family economic status and tendency to fertility, thus it is suggested authors investigate this relationship in other statistical populations and different time periods.
- 5. Significant relationship was found between religious tendency and tendency to fertility. Thus, it is suggested educational institutionsformulate programs on religious patterns and norms in relation with fertility

and child bearing considering community realities.

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