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An investigation of social and cultural factors affecting single-child families among urban young couples in Torbat Heydariyeh County

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Abstract

The desire for childbearing, as one of the primary indicators influencing population growth, holds significant importance in demographic studies. Identifying the factors affecting the decrease or increase of this desire is also of great importance. Accordingly, the present study investigated the social and cultural factors affecting single-child families among urban young couples in Torbat Heydariyeh County.

In this explanatory causal study, the research population consisted of 380 married women residing in the urban area of Torbat Heydariyeh County, who were selected using Cochran's formula and a two-stage random sampling method. Data were analyzed using descriptive statistics, independent t-tests, Mann-Whitney U tests, chi-square tests, and SPSS software version 21.

The mean age at marriage of mothers in single-child families was 18.81 ± 4.93, whereas in families with more than one child, it was 20.53 ± 4.99. The findings showed a significant relationship between the number of children and the variables of maternal age at marriage, maternal and paternal education, paternal employment status, and the history of the number of children in the mother's family of origin ($p < 0.05$). These results emphasize the necessity for policymakers and social planners to pay special attention to these contextual variables when examining or designing interventions related to population policies.

Keywords: Desire for childbearing, Social factors, Cultural factors, Single-child family

Introduction

Recently, the phenomenon of single-child families in various societies, particularly among young couples, has become one of the most important social and cultural issues. This change in family patterns emerged due to multiple reasons, including economic, social, and cultural transformations resulting from societal changes and living conditions. The economic reasons that lead young couples toward single-child families include increasing costs of living, education, healthcare, and housing, which prioritize financial security over a larger family. Social and cultural factors, including the valorization of gender equality and individual autonomy, women's desire for a balance between maternal and occupational roles, and attitudinal changes toward parenting with a focus on greater resources and attention, play a role in the decision for single-child families (1).

Educational level, individual and familial experiences, cultural beliefs and values, as well as societal and family expectations, also influence the choice of the number of children. Studies have demonstrated that the intention and behavior of single-child families, particularly in urban areas, has an increasing trend. The Demographic Transition Survey (2009) conducted in four provinces of Yazd, Gilan, Sistan and Baluchestan, and West Azerbaijan also indicated that, except for Sistan and Baluchestan, the ideal number of children among marriage cohorts was one child; however, clear attitudinal changes were observed in childbearing preferences among all marriage cohorts, both young and old. For example, many individuals in Gilan preferred single-child families (2). Additional evidence of the increasing trend of single-child families is based on four censuses of 1996, 2006, 2011, and 2016. Although these figures may clearly demonstrate an upward trend in single-child families, they may also indicate a temporal shift toward older ages for having a second child or a delay in second childbearing in recent years, which may be due to the increasing age at marriage among women and their short compensatory childbearing period (3).

The reasons and motivations underlying single-child behavior remain unclear. Extensive debates exist regarding the influence of value changes or economic pressures on low fertility behavior in Iran. However, it remains unclear how people and families interpret single-child behavior and which factors they attribute to such intention and behavior (4). Today, the family institution has undergone transformation alongside social changes. Accordingly, changes in the kinship system and fertility changes are an inevitable consequence of structural transformation of society as well as ideological transformations, which reduce the ideal number of children and impact the overall societal system and population structure. Studies indicate that fertility changes over recent decades are associated with socioeconomic and demographic characteristics (5).

What has captured the attention of researchers concerning fertility changes in recent years is the ideological and attitudinal transformation of couples toward childbearing, a transformation associated with a broad range of social factors that require identification. According to Durkheim, the family is not a natural group constructed by parents but rather a social institution brought into existence by social factors; because Durkheim's principle asserts that every social action is explained by other social factors. Consequently, the family, which constitutes the foundation of marriage and childbearing, is influenced by these social factors (6,7). Durkheim maintains that the family has undergone transformations that have advanced in Western and industrialized countries and are gradually becoming globalized. In his view, having a child today is more of an emotional decision than in the past, and contemporary society can be characterized as the golden age of the child or the era of the cherished child (8). According to Parsons, industrialization serves as the singular cause influencing the reduction in family size. Some attribute the tendency to limit the number of children to an economic perspective, the pursuit of leisure, and an affluent lifestyle (9).

The interval between marriage and the first child has been estimated at approximately three and a half years on average. The interval

between the first and second child has been approximately four and a half years. The birth spacing has led to a decrease in the number of live births born to women aged 25 to 29 years. This has raised discussions regarding the increasing tendency of society toward the phenomenon of childlessness or single-child families (10).

Delayed childbearing is one of the emerging demographic phenomena in Iran. Most research conducted on this topic from a medical perspective has examined birth spacing and first birth for the purpose of maternal and neonatal health and safety. However, less attention has been paid to this phenomenon from a demographic perspective. Moreover, these few studies have not given considerable attention to the causes and consequences of delayed childbearing. Since two decades ago, the total fertility rate index in Iran has been below one child. The increase in the mean age of childbearing as well as the lengthening of birth intervals have been part of Iran's low fertility experience during these two decades. Since fertility is a social phenomenon, there exist various and diverse problems and factors that can influence and control it. In general, the decision for single-child families is multidimensional and reflects a complex interaction of economic, social, cultural, and personal factors. Understanding these motivations requires a comprehensive approach that considers the changing dynamics of modern societies and the unique circumstances of each couple. Therefore, this study investigated the social and cultural factors affecting single-child families among urban young couples in Torbat Heydarieh County.

Methods

The present cross-sectional study was conducted among single-child families and families with more than one child in the urban population of Torbat Heydarieh County in 2024. After obtaining written permission from the Research Council of Torbat Heydarieh University of Medical Sciences, the information of eligible couples was extracted from the Negar Health Information System.

Following telephone contact and obtaining informed consent, a household information checklist was completed through in-person and telephone interviews with the women, and all respondents were assured of the confidentiality of their information. The statistical population of the study consisted of single-child families and families with more than one child.

According to the number of married women in the urban area of Torbat Heydarieh County, which is 40,000 based on the Level One Electronic Health Record System, and using Cochran's formula, a sample size of 380 individuals was required. From the study population, 190 single-child couples with a child aged three years and above, and 190 couples with more than one child were selected.

Using cluster sampling, six health centers were first selected from among 15 urban health centers. Subsequently, within each center using simple random sampling, 190 households from single-child families (proportional to the population of such households in that center) and 190 households from families with more than one child (proportional to the population of such households in that center) were selected.

Data Collection Instruments

Since data collection based on a checklist is one of the common methods in research and evaluations, and assists the researcher in collecting the required information in a systematic and structured manner, the present study employed a household information checklist to collect the relevant variables.

Household Information Checklist

The household information checklist included the study variables among the groups of single-child families and families with more than one child.

The household information checklist for this study was completed after coordination and obtaining the necessary permissions from single-child and more-than-one-child mothers among urban couples in Torbat Heydariyeh County. Following telephone contact and obtaining informed consent from the citizens participating in the study, the household information checklist was completed through

in-person interviews or telephone calls with the women, and all respondents were assured of the confidentiality of their information. In this study, the information of eligible couples was extracted from the Negar Health Information System.

After the checklists were completed, the data were entered into SPSS software version 21. To describe quantitative variables, mean and standard deviation indices were used, and for qualitative variables, frequency and percentage indices were used. To determine the social and cultural factors associated with single-child families among urban young couples in Torbat Heydariyeh County, independent t-tests, Mann-Whitney U tests, and chi-square tests were employed.

Result

The mean age of mothers in single-child families was 18.81 ± 4.93, whereas in families with more than one child, it was 20.53 ± 4.99. The results of the Mann-Whitney U test indicated that the mean age of mothers in single-child families was lower than that in families with more than one child, and this difference was statistically significant ($P < 0.001$).

The mean age of fathers in single-child families was 24.83 ± 4.15, and in families with more than one child, it was 25.49 ± 4.74. The results of the Mann-Whitney U test showed that the mean age of fathers in single-child families did not differ significantly from that in families with more than one child ($P = 0.27$).

The mean income in single-child families was 14.16 ± 6.83, and in families with more than one child, it was 14.39 ± 6.94. The results of the Mann-Whitney U test demonstrated that the mean family income in single-child families and families with more than one child did not differ significantly ($P = 0.82$).

In the single-child family group, 56 mothers (29.5%) were illiterate or had elementary education, 34 (17.9%) had middle school education, 57 (30.0%) had high school diploma, 11 (5.8%) had associate degree, 26 (13.7%) had bachelor's degree, and 6 (3.2%) had master's or doctoral degrees. Furthermore, in families with more than one child, 82 mothers (44.1%) were illiterate or had elementary education, 16 (8.6%) had middle school education, 48 (25.8%) had high school diploma, 10 (5.4%) had associate degree, 26 (14.0%) had bachelor's degree, and 4 (2.2%) had master's or doctoral degrees.

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In the single-child family group, 18 fathers (9.7%) were illiterate or had elementary education, 33 (17.7%) had middle school education, 55 (29.6%) had high school diploma, 19 (10.2%) had associate degree, 51 (27.4%) had bachelor's degree, and 9 (4.8%) had master's or doctoral degrees. Furthermore, in families with more than one child, 29 fathers (15.3%) were illiterate or had elementary education, 44 (23.2%) had middle school education, 68 (35.8%) had high school diploma, 10 (5.3%) had associate degree, 30 (15.8%) had bachelor's degree, and 9 (4.7%) had master's or doctoral degrees.

The results of the chi-square test showed that the frequency distribution across different levels of maternal education differed significantly between single-child families and families with more than one child ($P = 0.01$).

In the single-child family group, 167 mothers (89.8%) were homemakers, 10 (5.4%) were self-employed, and 10 (5.4%) were employed. Furthermore, in families with more than one child, 158 mothers (83.2%) were homemakers, 10 (5.3%) were self-employed, and 22 (11.6%) were employed.

The results of the chi-square test indicated that the frequency distribution across different levels of maternal occupation did not differ significantly between single-child families and families with more than one child ($P = 0.06$).

In the single-child family group, 17 fathers (9.1%) were workers, 47 (25.3%) were farmers and ranchers, 18 (9.7%) were employed, and 104 (55.9%) were self-employed. Furthermore, in families with more than one child, 22 fathers (11.6%) were workers, 65 (34.2%) were farmers and ranchers, 4 (2.1%) were employed, and 99 (52.1%) were self-employed.

The results of the chi-square test demonstrated that the frequency distribution across different levels of paternal occupation differed significantly between single-child families and families with more than one child (P = 0.006).

In the single-child family group, 74 households (39.8%) were owners and 110 (59.1%) were tenants. Furthermore, in families with more than one child, 61 households (32.1%) were owners and 128 (67.4%) were tenants.

The results of the chi-square test indicated that the frequency distribution across different levels of housing tenure did not differ significantly between single-child families and families with more than one child (P = 0.11).

In the single-child family group, 160 households (86.0%) had no history of abortion, 20 (10.8%) had a history of one abortion, and 6 (3.2%) had a history of two or more abortions. Furthermore, in families with more than one child, 169 households (88.9%) had no history of abortion, 16 (8.4%) had a history of one abortion, and 5 (2.6%) had a history of two or more abortions.

The results of the chi-square test showed that the frequency distribution across different levels of abortion history did not differ significantly between single-child families and families with more than one child (P = 0.691).

In the single-child family group, 39 individuals (21.0%) had three or fewer children in their maternal family of origin, 71 (38.2%) had four to five children, and 73 (39.2%) had six or more children in their maternal family of origin. Furthermore, in families with more than one child, 21 individuals (11.1%) had three or fewer children in their maternal family of origin, 65 (34.2%) had four to five children, and 104 (54.7%) had six or more children in their maternal family of origin.

The results of the chi-square test demonstrated that the frequency distribution across different levels of the number of children in the maternal family of origin differed significantly between single-child families and families with more than one child (P = 0.004).

In the single-child family group, 27 individuals (14.5%) had three or fewer children in their paternal family of origin, 64 (34.4%) had four to five children, and 92 (49.5%) had six or more children in their paternal family of origin. Furthermore, in families with more than one child, 16 individuals (8.4%) had three or fewer children in their paternal family of origin, 57 (30.0%) had four to five children, and 116 (61.1%) had six or more children in their paternal family of origin.

The results of the chi-square test indicated that the frequency distribution across different levels of the number of children in the paternal family of origin did not differ significantly between single-child families and families with more than one child (P = 0.053).

According to the findings, all households examined were of the nuclear type. **T**here was no statistically significant difference between single-child families and families with more than one child (P > 0.005) (Table 1).

Table 1. demographic characteristics of the participants

variables		Single-child family	Families with more than one child	P-value
Maternal age at marriage		18.81±4.93	20.53±4.99	<0.001
Paternal age at marriage		24.83±4.15	25.49±4.74	0.27
Income (in million Tomans)		14.16±6.83	14.39±6.94	0.82
Maternal education level	Illiterate or elementary education	56(29.50)	82(44.1)	0.02
	Middle school education	34(17.9)	16(8.6)	
	High school diploma	57(30)	48(25.8)	
	Associate degree	11(5.8)	10(5.4)	
	Bachelor's degree	26(13.7)	26(14)	
	Master's or doctoral degrees	6(3.2)	4(2.2)	
Paternal education level	Illiterate or elementary education	18(9.7)	29(15.3)	0.01

	Middle school education	33(17.7)	44(23.2)	
	High school diploma	55(29.6)	68(35.8)	
	Associate degree	19(10.2)	10(5.3)	
	Bachelor's degree	51(27.4)	30(15.8)	
	Master's or doctoral degrees	9(4.8)	9(4.7)	
Maternal occupation	Homemaker	167(89.8)	158(83.2)	0.06
	Self-employed	10(5.4)	10(5.3)	
	Employed	9(10)	22(11.6)	
Paternal occupation	Worker	17(9.1)	22(11.6)	0.006
	Farmer and Rancher	47(25.3)	65(34.2)	
	Employed	18(9.7)	4(2.1)	
	Self-Employed	104(55.9)	99(52.1)	
Place of Residence	Owner	74(39.8)	61(32.1)	0.111
	Tenant	110(74)	128(67.4)	
Number of Abortions	No history of abortion	160(86)	169(88.9)	0.691
	History of one abortion	20(10.8)	16(8.4)	
	History of two or more abortions	6(3.2)	15(2.6)	
Number of Children in Maternal Family of Origin	3 children or fewer	39(21)	21(11.1)	0.004
	4 to 5 children	71(38.2)	65(34.2)	
	6 children or more	73(39.2)	104(54.7)	
Number of Children in Paternal Family of Origin	3 children or fewer	27(14.5)	16(8.4)	0.053
	4 to 5 children	64(34.4)	57(30)	
	6 children or more	92(49.5)	116(61.1)	

Discussion

The results demonstrated that the mean age of mothers in single-child families was lower than that in families with more than one child, and this difference was statistically significant. As observed, the mean age at marriage of mothers in families with more than one child was higher, although this difference was not very considerable. This finding may be related to the cultural conditions of eastern Iran and the low age at marriage in this region, which is inconsistent with other studies (11,12).

The mean age of fathers in single-child families was 24.83 ± 4.15, and in families with more than one child, it was 25.49 ± 4.74. The results indicated that the mean age of fathers in single-child families did not differ significantly from that in families with more than one child (P = 0.27). These results were consistent with the study by Falbo (13).

The results showed that the frequency distribution across different levels of maternal education differed significantly between single-child families and families with more than one child (P = 0.02). These results were consistent with other studies (12). It can be concluded that low educational attainment plays an important role in increased childbearing.

The frequency distribution across different levels of maternal occupation did not differ significantly between single-child families and families with more than one child (P = 0.06). In the study by Falbo, this association was reported as significant and direct (14). Although it was expected that employed women might have a lower desire for childbearing due to occupational demands and time constraints, the results obtained in the present study did not demonstrate this finding. This may be explained by the support of parental families for childcare, the proximity of the workplace to home, the absence of traffic congestion in the city, or the proximity of daycare centers to offices and schools due to the small size of the city compared to metropolitan areas, which may have resulted in occupation having no influence on childbearing.

The results indicated that the frequency distribution across different levels of paternal occupation differed significantly between single-child families and families with more than one child (P = 0.006). The occupational level of fathers may be considered as one of the

indicators of human capital, economic capital, and parenting opportunities. The difference in this indicator between the two groups may reflect socioeconomic differences or the postponed effects of childbearing.

The mean income in single-child families was 14.16 ± 6.83, and in families with more than one child, it was 14.39 ± 6.94. The results demonstrated that the mean family income in single-child families and families with more than one child did not differ significantly (P = 0.82). These results were consistent with the study by Tavares (15). It was expected that income would play a determining role in childbearing, particularly given the current economic conditions in society; however, no difference existed among individuals with different income levels regarding childbearing behavior, and cultural factors may be of greater consideration for the population.

The frequency distribution across different levels of the number of children in the maternal family of origin differed significantly between single-child families and families with more than one child (P = 0.004). These results were consistent with the study by Schrodt (16). In general, individuals who were raised in large families may have a greater tendency to have more children in their own families, whereas single-child individuals or those raised in low-fertility families may have a lower tendency to have many children. This issue depends on various factors, including personal experiences, cultural values, and economic factors.

The frequency distribution across different levels of the number of children in the paternal family of origin did not differ significantly between single-child families and families with more than one child (P = 0.053). These results were consistent with the study by Schrodt (16). The number of children in the paternal and maternal families of origin may be an influencing factor in couples' childbearing decisions, but this issue also depends on various other factors.

The results showed that the frequency distribution across different levels of abortion history did not differ significantly between single-child families and families with more than one child (P = 0.74). The frequency distribution across different levels of abortion history showed no statistically significant difference between single-child families and families with more than one child (P = 0.69). These results were consistent with the study by Schrodt (16).

Conclusion

In summary, this study confirms that single-child families are not a random phenomenon and are strongly intertwined with demographic, economic, and cultural indicators of families. Significant differences in variables such as maternal age at marriage and educational level, paternal employment status, and even the history of the number of children in the family of origin all indicate that the structure and social context of the family play a central role in the pattern of choosing the number of children. These results emphasize the necessity for policymakers and social planners to pay special attention to these contextual variables when examining or designing interventions related to population policies.

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