THE INCREASE IN THE PREVALENCE OF ONE-PERSON HOUSEHOLDS IN TURKEY: BY CHOICES OR BY CIRCUMSTANCES?

TÜRKİYE'DE TEK KİŞİLİK HANEHALKLARINDAKİ ARTIŞ: TERCİHLERDEN DOLAYI MI YOKSA KOŞULLARDAN MI?

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ABSTRACT

The trend of living alone in Turkey has its roots in the second part of the 20th century. Together with transformation processes in every stage of life, the traditional family institution has dissolved, and different types of households started to appear. This study examines the underlying factors related to the prevalence of one-person households in Turkey by concerning modernization and developmental idealism approaches. The data acquired from Turkey Demographic and Health Survey (TDHS) were mainly used to reveal the characteristics of one-person households by utilizing descriptive and statistical methods. After a set of analyses, it was found that one-person households are primarily composed of older people, however, the younger, educated persons have risen across time from TDHS 1993 to 2018. Even if there is a significant share of people living alone depending on the circumstances, those living alone by their choices have shown a greater increase.

KEYWORDS: Household, Living Alone, Family Structure, Modernization

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ÖZET

Türkiye'de yalnız yaşama eğiliminin temelleri, 20. yüzyılın ikinci yarısından itibaren görülmektedir. Hayatın her aşamasında yaşanan dönüşüm süreçleriyle birlikte geleneksel aile kurumu çözülmüş ve farklı hane tipleri ortaya çıkmaya başlamıştır. Bu çalışma, Türkiye'de tek kişilik hanelerin yaygınlığının altında yatan faktörleri modernizasyon ve gelişimsel idealizm yaklaşımları üzerinden incelemektedir. Türkiye Nüfus ve Sağlık Araştırması'ndan (TNSA) elde edilen veriler, betimsel ve istatistiksel yöntemler kullanılarak tek kişilik hanelerin özelliklerini ortaya çıkarmak amacıyla kullanılmıştır. Bir dizi analiz sonucunda, tek kişilik hanelerin ağırlıklı olarak yaşlılardan oluştuğu, ancak TNSA 1993'ten 2018'e daha genç, eğitimli kişilerin dağılımının zaman içinde arttığı tespit edilmiştir. Koşullara bağlı olarak yalnız yaşayanlar önemli bir temsile sahip olsalar da tercihleriyle yalnız yaşayanlar zaman içinde önemli bir artış göstermişlerdir.

ANAHTAR KELİMELER: Hanehalkı, Tek Yaşama, Aile Yapısı, Modernizasyon

INTRODUCTION

The household structure in Turkey started to transform after the modernization process mainly originated in the industrialized Western societies and spread to other European countries, South American, Asian, and African countries in the 1900s (Eisenstadt, 1966). The severe social, economic, and demographic changes after the establishment of the republic having a westernized curriculum in education, social life, and production have affected the family structure and caused the penetration of modern societies' way of life. Moreover, decreasing mortality rates and increasing life expectancy at birth have contributed to the transformation of the population. The centralization of the industrial developments in some urban areas and the usage of industrial means of production had given speed to the transformation process and caused the internal migration flows from the rural areas to urban centers and peripheries. The family relations and household structure which are closely related to the social, economic, and demographic dependents were in the center of the discussion since the traditional family structure is common in patriarchal rural societies whereas nuclear families and solo livings are common in modern societies (Adams and Trost, 2005). The reason behind this structural change is mainly related to the production process, therefore, the number of people in the household is critically important in the rural's patriarchal extended families because of sharing of the duties. However, the need for human power has lost its significance after the industrialization. Thus, the realization of the fact that living in smaller households has no

restriction in maintaining people's living has created a way to dissolution of traditional families and calculate the value of children. Furthermore, the fundamental shift in family structure from rural-based extended families to nuclear families has come into existence (Baştuğ, 2003). Even though there is a transformation to the westernized family structure, Kağıtçıbaşı (1982) argues that the isolated family types of industrialized societies are different from the nuclear families in Turkey.

The reasons behind the reduction in traditional family types cannot be described only by depending on urbanization and industrialization, the influence of modernization curriculum on the demographic and social transformation processes should also be estimated. Since divorce rates and the age of first marriage have increased and the household sizes and the number of children decreased, smaller households have become outstanding trends in societies. The transition process has penetrated, and different types of households and families such as nuclear families with no children, one-parent households, and one-person households have come into sight (OECD, 2011). Moreover, Koç (2019) argues that the rise in the dissolved families has impeded the nuclearization process of the families after the 1990s. In detail, the sub-family structure of nuclear families has shown the rising visibility of nuclear families with no child compared to having one or more children. Depending on the discussions about household structure and family transition, the presence of extended families and nuclear families cannot be neglected in Turkey's context. As a bridge from the Middle Eastern countries to the European countries, Turkey has shared some common family features and practices with its historically, geographically, and culturally affiliated societies. Therefore, the expectation of modernization's one-way progress in social relations might not be found in Turkey's modernization path, however, the common elements of transformation processes as a result of globalization, urbanization, and industrialization can be outlined. In this context, the decrease in extended families to nearly 10 percent, the stability of nuclear families' shares around 70 percent and below, and the scaling of dissolved families up to 20 percent can be the outcomes of the modernization process in Turkey.

Table 1. The share of households in Turkey (2014-2020)

Year	One-person households	One-family households	Extend-ed-family households	Multi-person no-family households
2014	14%	67%	17%	2%
2015	14%	67%	17%	2%
2016	15%	66%	16%	2%
2017	15%	66%	16%	3%
2018	16%	65%	16%	3%
2019	17%	65%	15%	3%
2020	18%	65%	14%	3%

Source: TURKSTAT (2021)

The uprising trend of one-person households in Turkey as seen in Table 1 has become crucial in the context of family and household transformation. This situation corresponds to the global family structure change. As stated in the historical outputs, living alone started to be a rising phenomenon in early industrialized societies more than a century ago, accelerating after the 1950s. While living alone in Nordic societies was not common in the past, households composed of one person represent an outstanding proportion of all one-person households in these countries and the rest of the world nowadays (Ortiz-Ospina, 2019). Although Turkey has experienced modernization and industrialization later compared to Western European countries, the household transition has taken place more rapidly as a result of internal migration from rural to urban centers, the liberation of women, and some social and economic improvements. Thus, the connection between the visibility of one-person households and modernization cannot be denied by the nature of the relationship. The underlying factors of solo living are closely related to modernization, globalization, and individualization which altered the existing social structure such as family institutions.

In the sense of one-person households, there can be a variety of factors causing the rise, therefore, the need for theoretical background should be underlined. As stated in the early discussions in the study, modernization theory is mainly related to the topic. However, the modernization theory which depends on the traditional-modern dualism and argues that societies have faced evolutionary stages causing them to achieve the social, political, and economic characteristics of Western European and North American communities that have reached the highest stage of social evolution, is

not enough to explain the reasons behind the prevalence of one-person households. The developmental idealism approach having its roots in the modernization theory can be useful for responding to the underlying factors. Developmental idealism, which was introduced by Thornton (2001), is a cultural model associated with the norms, values, and beliefs of Western thought (Geertz, 1973; Fricke, 1997; Thornton, 2001).

The logic behind developmental idealism is not to allege that some cultural values and items are good or bad, however, suppose that disseminating such concepts will urge the change in family structure in the world. As argued by Thornton, Pierotti, Young-DeMarco, and Watkins (2014), developmental idealism includes two fundamental concepts: developmental idealism beliefs, and values. As beliefs correspond to individuals' comprehension of modern society behaviors and development; values, on the other hand, answer the criticism of these behaviors and their outcomes. Developmental idealism also figures out the variations of modernization processes among the countries and such conflicts related to it. Besides, it creates an opportunity to comprehend the hybridization of the family within dualism, western and non-western, and the past and future (Kavas and Thornton, 2013). Thus, the study claims that developmental idealism plays a vital role in the transition of households and the prevalence of one-person households.

The study carried out by Çağatay and Koç (2008) which analyses the rapid rise in single-person households and the socio-demographic determinants related to the topic based on Turkey Demography and Health Survey (TDHS) datasets between 1993-2008 is the main starting point of this article. The study predominantly used descriptive analysis techniques and applied no multivariate analysis. On the other hand, Başlevent's study (2021), which focuses on the prevalence of single-person households and compares it with other types of households by conducting an empirical study using the microdata acquired from Income and Living Conditions Surveys between 2006-2018, can be put forward as another study centered on living alone. As there are a small number of studies on solo-living in Turkey, this article utilizes the data obtained from TDHS to fill in the gaps in the literature on the subject of one-person households and their determinants. In that phase, the study creates new categories such as choice and circumstances, therefore, the peculiarities of the households can be categorized with regard to the formation types.

Based on the mentioned theoretical framework and the literature, in this paper, the rise in one-person households and whether the formation of one-person households is due to circumstances or choices have been analyzed by using interrelating concepts. The use of such dichotomy shows us to reconsider a discussion of the demands of the individuals and the necessities

of the society, which we started to discuss with the idea of modernization. As stated in the article's introduction, there is a reality that single-person households are on the rise. Even though the reasons vary, the social and economic changes in the process bring the tendency to live alone to a point where it shares similarities with examples from other Western countries.

The article has three inter-related objectives to ascertain the results of descriptive and multivariate analysis of one-person households in Turkey: firstly, revealing the prevalence of one-person households by some social, economic, and demographic parameters; secondly, find out whether the increase is by choices or by circumstances; and finally, put forward the reasons behind the rise and making policy recommendations about it. In order to achieve these underlined objectives, the data from TDHS 1993 to 2018 were utilized.

METHODS

Data

The primary data was based on the 2018 Turkey Demographic and Health Survey (TDHS-2018). Additionally, in order to acquire the trends of the one-person households in Turkey, the data from TDHS-1993, TDHS-1998, TDHS-2003, TDHS-2008, and TDHS-2013 were also benefited from in the analysis. Address Based Population Registration System (ABPRS) was also employed to demonstrate the share of the households in Turkey.

Turkey Demographic and Health Survey

Turkey Demographic and Health Surveys have been carried out in five-year periods starting from 1968. TDHS data are composed of different questionnaires, which include household and women questionnaires. The data about household size and household types were mainly obtained from household questionnaires, which have been adjusted to represent Turkey's population and health issues based on the Model Questionnaires of the DHS Program. In fact, during the preparation of questionnaires, the comparability of each TDHS with prior longitudinal surveys was maintained. The basic information such as sex, age, marital status, and educational background can be obtained from the Household Questionnaire.

Definitions and classifications

The first concept is the household, the differentiation of its definitions can be seen in data sources. The household in TDHS is defined as a social unit that consists of a person or people who live together in the same home with relatives or non-relatives, collectively using house items, and accept a woman or man as the head of the household. Also, according to TDHS, three

criteria should be carried out: single budget, single kitchen (common table), and shared residence or living under a single roof. A household member, on the other hand, is an individual who fits this definition. In short, everyone who is written on the household list is either someone who usually lives in that home or stayed there the night before the meeting.

In TDHS, a family is examined in three subgroups. A nuclear family consists of spouses and unmarried children, or with no children. The extended family is the second one which is composed of a nuclear family and an additional one or more members in the household such as the husband's mother or father. The last one is dissolved family, a family type in which the nuclear family unit is reduced to one parent, one person, or in which the family comprises people who are not related by blood. Single person household is a type of dissolved family in TDHS conceptualization and is defined as a household type made up of a single female or male who lives alone (Koç, 2019). As can be understood from these definitions, a household may include one or more family units or can be without a family unit. For this reason, in the literature, the terms "family household" for households that include the family unit and "non-family households" for the households that do not contain the family unit are used (Laslett, 1972; Koç, 1997; Yavuz, 2002; Koç, Özgören, and Şirin, 2010; Yavuz and Yüceşahin, 2012; Koç, 2019).

Variables and statistical analysis

There were two types of analysis used in this study: descriptive and multivariate analyses. The results of the TDHS were used in the descriptive section of the study based on fundamental characteristics and formation types. In the analyses, sex, age, and marital status variables were utilized to figure out the basic characteristics.

In the second phase of the descriptive analysis, one-person households were analyzed depending on the formation types, which are one-person households by choice and by circumstances. In order to create new variables, choice and circumstances, the marital status of the household heads variable in the TDHS data set was used. Based on theoretical background and literature, the head's marital status has been found relatedly more effective in analyzing one-person households and deciding whether people are living alone due to choices or circumstances. The "never-married," "divorced" and "not living together" categories have been assigned to the one-person households by choice, on the other hand, the "widowed" and "married" categories have been attached to the circumstances category. Thus, one-person households are analyzed by using different socioeconomic and demographic variables in the dataset based on these two classifications.

TDHS-2018 household data were employed in the multivariate analysis.

The data sample was weighted to find out accurate and comprehensive representation. Some new variables were created based on the TDHS-2018 household data's original variables to find reasonable and comprehensible outputs.

In the multivariate analysis part, similar logic has been used to find out the characteristics of one-person households by the formation types and examine the statistical models based upon the TDHS dataset. The MARSTAT variable was employed to reveal some essential characteristics of one-person households. To achieve this, the MARSTAT variable was created based on the HV115$01 variable, which figures out the marital status of the household heads. The categories of this variable have been grouped into two categories: circumstances denoted by "0," and choices represented by "1." The reason behind creating a new dependent variable is to find out the definitive characteristics of one-person households. Thus, it can be ascertained that one-person households are formed by circumstances or depending on persons' own choices.

The marriage status of the household heads in one-person households gives us some informative background for the analysis. That is to say, living alone is affected by different phenomena like sex, age, education, marriage status, and wealth. However, depending on the descriptive analysis, the person's marital status in one-person households is a critical explanatory factor.

The decision about living alone depends on two main situations. The first situation expresses that people live alone due to current conditions, so the decision to form one-person households is made by circumstances, coded as "0." In that situation, sex, age, and wealth can be effective, but people's marital status could be more influential. According to the descriptive analysis, the reason for the underrepresentation of married heads in one-person households is about marital status to a considerable extent, just as happened in that widowed heads' significant representations in one-person households.

In that analysis, the married people living alone, and the widows were assigned to the circumstances category. The never-married, divorced heads and people who are not living together were attached to the choices category since the reason behind this preference is people's own decisions. Even if people are forced to divorce or separate, they are not back to their family homes or decide to live alone like never-married ones. Hence, all three situations depend on the decisions of the persons and can be logically related to singlehood. In that situation, depending on the study's main idea, choice-based one-person households are expected to be observed, and thus the

formation of one-person households by choices denoted by "1."

On the other hand, the codes used were created in accordance with the TDHS structure. "Poorer" and "poorest" categories of wealth were combined to "poor" category, "richer" and "richest" were combined to form rich category.

Thus, three models were employed in the analysis, mentioned in Table 2. The variables included in the models were changed through the unit of analysis.

Table 2. The Models Used in the Multivariate Analysis

Model	Explanation
Basic Model	This model includes only the sex variable coded as HV104$01.
Individual-level Model	It includes variables about household heads' backgrounds.
Diverse Model	This model consists of Basic and Individual-based Models and other household-level variables to make a more comprehensive analysis.

TDHS-2018 data was employed in the logistic regression phase to reveal the determining factors of the formation of one-person households by choices compared to circumstances.

In the models, the binary and discrete dependent variables were utilized. The risk is denoted by "1" and the other by "0." There are three models in the logistic regression analysis, and the construction of dependent variables in the models is figured out below.

For the logistic regression phase, the dependent variable is as follows:

$$f_1 = \begin{cases} 1, & \text{if the formation of one} - \text{person household based on choices} \\ 0, & if \text{ the formation of one} - \text{person household based on circumstances} \end{cases}$$

Including household characteristics in multivariate analyzes aiming to explain the determinants of one-person households; region, type of place of residence, determining the characteristics of household heads; gender, age, education status, marital status, wealth status, receiving any pension or payment were examined.

The odd values of the models and variables were taken into consideration to define the characteristics of one-person households in both two logistic regression analyses in the study. The Odds Ratio, also known as relative probability, is the ratio of the odds values of two particular cases. The odds ratio, written as Exp() in the logistic regression equation, symbolizes

the effect of variable on variable (Gujarati, 2004).

In addition to this, Nagelkerke's R square is based on log-likelihood, and it is a type of scoring rule, a logarithmic one. Thus, it has been employed to measure the general performance of all models (Steyerberg and others, 2010).

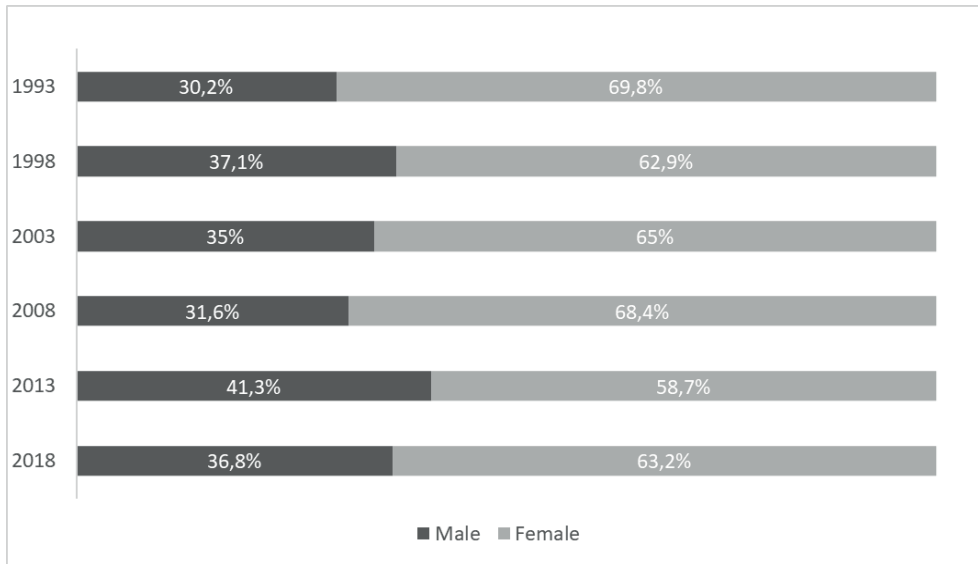## RESULTS

Descriptive Findings

Descriptive and multivariate statistical models were employed to find out the details of rising one-person households and their characteristics depending on the discussions of living alone by choice or by circumstances. As a primary data source TDHS data has been analyzed and some basic characteristics of one-person households have been figured out.

Figure 1. Changes in the Percentage of One-Person Households, TDHS-1993-TDHS-2018
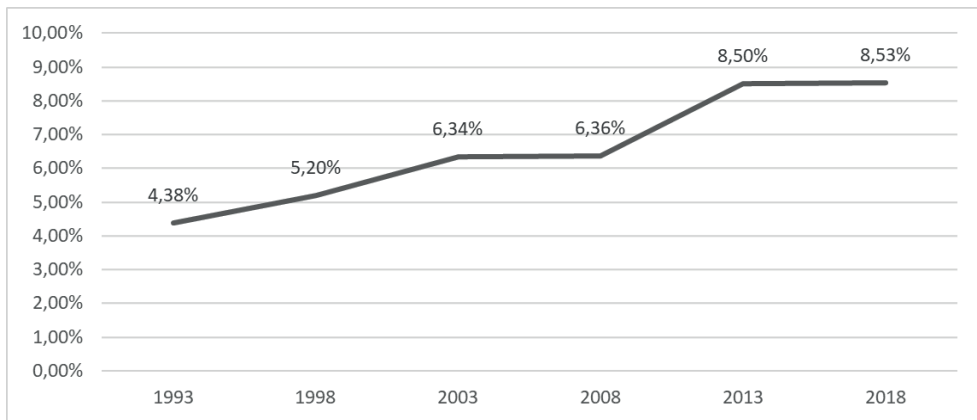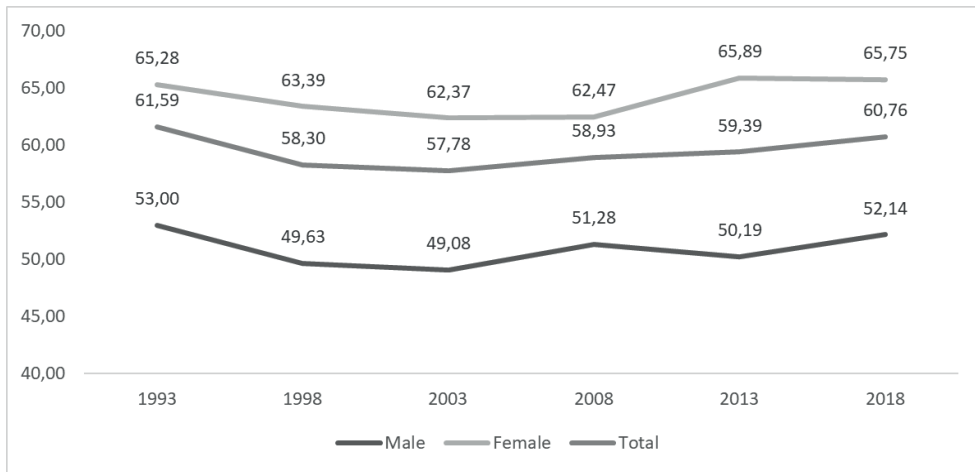

Source: TDHS (1993-2018)

Figure 2. Percentage Distribution of One-Person Households by Sex, 1993-2018

Source: TDHS (1993-2018)

The share of one-person households in the total number of households in Turkey is shown in Figure 1. According to the results of the descriptive analysis, there is a constant increase in the distribution starting from 4.38 in 1993 reaching up to 8.53 percent in 2018. On the other hand, as mentioned in the literature, the feminization of one-person households can be stated as a fact according to TDHS results. The presence of female household heads in six different survey years has the biggest proportion in all households with a single person. Even though there is a fluctuation in the percentages across the survey years, the female representation has changed between 58 percent to nearly 70 percent whereas the male has differed from 30 to 41 percent (see Figure 2).
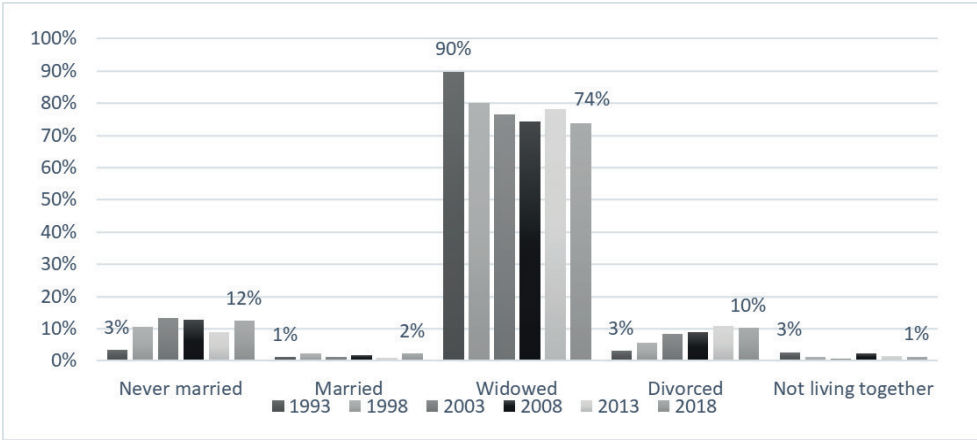
Figure 3. Mean Ages of Heads in One-Person Households, 1993-2018
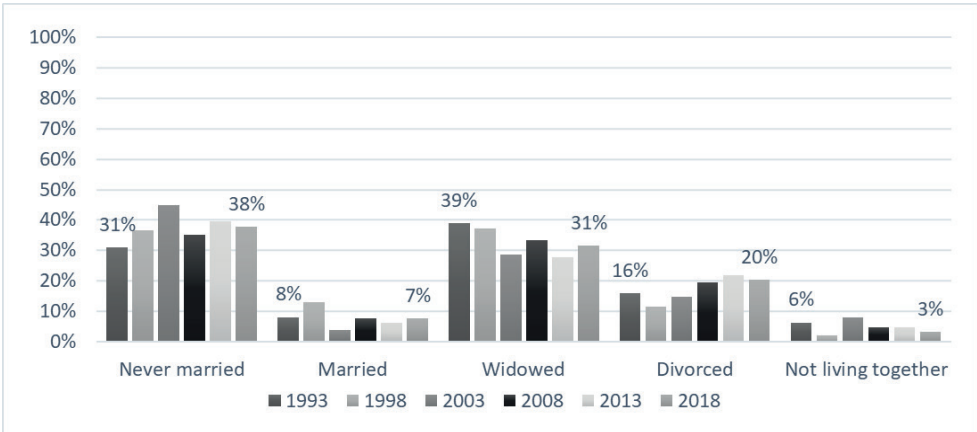

Source: TDHS (1993-2018)

The analysis has been supported by another determinant which is presented in Figure 3, the mean results for the age of household heads based on their sexes and a combined one. According to the figure, the mean ages differ depending on the sexes of heads; female members have higher than 60 years of age as a mean, while the males are mainly around 50 years. In analyzing the age variable, it might be stated that the aging factor of the members in one-person households plays a vital role, therefore, the visibility of females at later ages due to higher length of life results in widowhood, thereby, causing a great representation of female ones in the distribution of one-person households.

Figure 4. Percentage Distribution of Female-Headed One-Person Households by Marital Status, 1993-2018

Figure 5. Percentage Distribution of Male-Headed One-Person Households by Marital Status, 1993-2018

Figure 4 shows that most of the female heads in one-person households are in widowhood status despite the fact that the percentages have been decreasing from 90 to 74 percent since 1993. The never-married and divorced household heads have shown an increasing tendency in all females. On the other side, people who are married but currently living alone, and married

but not living together with their partner have the lowest rates in all groups in one-person households.

The marital status variable for the male heads shows the dominance of never-married, widowed, and divorced categories in the share. As happened in the female group, the married and not living together categories are sharing the last places (see Figure 5).

One-Person Household by Formation Type

Using the marital status of the household heads, a variable reflecting the establishment of one-person households as a result of choice or circumstance was developed in this section of the study. "0" for married but living alone at present and widowhood heads, expressing one-person households by circumstance; "1" for never married and divorced/not living together people, signifying one-person households by choice. The motivation for creating such variables is primarily based on the relationship between the heads' marital status and the formation of one-person households, besides, the rationale behind this classification has been explained in the Method section.

Figure 6. Changes in the Percentage Distribution of One-Person Households by the Formation Types, 1993-2018
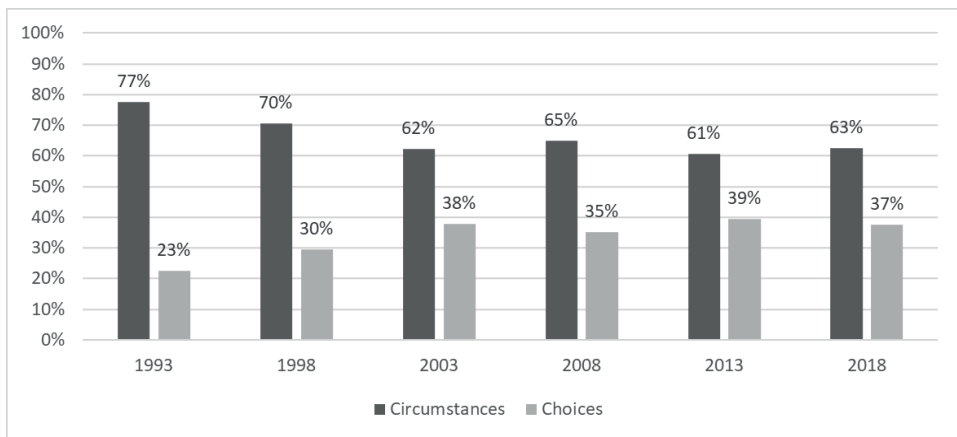
Source: TDHS (1993-2018)

Figure 7. Changes in the Percentage Distribution of One-Person Households by the Formation Types and Sexes, 1993-2018
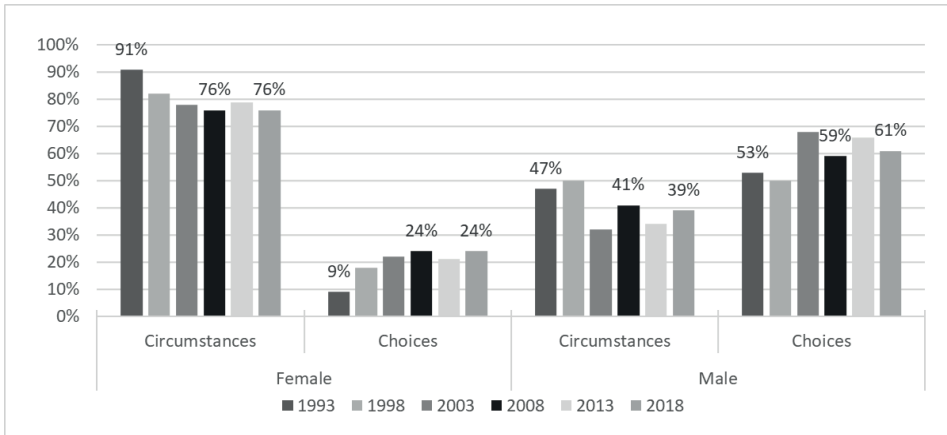
Figure 6 illustrates that one-person households by choice have increased by 61 percent since 1993, from 23% to 37% in 2018 whereas the share of living alone due to circumstances reduced by 18% through the same period. According to the last survey result, the percentage of choice-based households has reached 37 percent compared to circumstances-based households with 63 percent.

Figure 7 indicates the change in the formation of one-person households by female and male heads. According to the figure, the percentage of female heads living alone by circumstances has decreased across time while the percentage of females living alone by choice has increased. For example, the difference between living alone by circumstances and choices in female heads decreased from 80 percent in 1993 to 53 percent in 2018. On the other side, one-person households with male heads by choice had a more significant percentage share compared to one-person households by circumstances. It had risen from 53 percent to 61 percent over the years, whereas one-person households by circumstances decreased from 47 percent to 39 percent. Moreover, the age composition of household heads shows us that the mean age results of the heads in the circumstances category are higher for both sexes (nearly 70 years), on the other hand, people living alone by choice do not have a very low mean age either (40-50 years of age).

Table 3. The Mean Years of Schooling of One-Person Household Members by the Formation Types, 1993-2018

Formation type of One-person households	Years					
	1993	**1998**	**2003**	**2008**	**2013**	**2018**
Circumstances	1.9	3.0	3.2	3.2	3.8	3.9
Choices	7.2	10.4	10.9	10.5	10.4	11.2
Number of de jure members	377	419	687	669	1003	943

Source: TDHS (1993-2018)

Another identifying character of the one-person household by circumstances and by choices is the mean years of schooling. As shown in Table 3, which indicate the household members' mean years of education; while the time spent in education by the members in the circumstances category is less than those in choices category between 1993-2018, the mean years have increasing trend across the years for all categories except from 2008.

Multivariate Analysis

The literature and descriptive analyses are very crucial for defining features of the tendency to live alone in Turkey. However, the significance levels of this situation and revealing the determinants of the tendency to live alone might become more meaningful with statistical analysis. Thus, we applied the logistic regression models to decide which conditions are more effective and which are not.

The risks for one-person households are assessed in the statistical analysis by the formation types. As stated in Table 4, there are three models in that phase of the analysis: basic model, individual-level model, and diverse model.

The basic model is described as the first model in which the sex of the family heads is an independent variable. Female is the reference category for this variable, which has two options. In the first model, male heads had a 5.039 more chance than female heads of creating one-person households by choice. With a significance value of 0.000 ($p<0.05$), the male group was found significant. As indicated in Table 4, the basic model's R square value is 0.176, implying that it explains 17.6% of the formation of one-person households, and the constant has a 0.000 significance value.

Individual-level factors such as sex and age, as well as schooling completed in single years, make up the second model. In this model, the sex variable is the first variable, and female heads are the reference group. Male

heads have a p<0.05 significance threshold, and the likelihood of creating one-person households is two times higher in the male group than in the female group. The age variable is divided into four categories, with the 65+ age group serving as the reference group. According to the results, the risk of forming one-person households was significant for all age groups. The risk is 110.699 times greater in the 15-29 age group, 22.726 times higher in the 30-44 age group, and 5.432 times higher in the 45-59 age group than in the reference group. The R square value of the second model is 0.641, which is a significant increase over the previous model, and the constant is 0.046.

Table 4. Logistic Regression Models for the Risk of Formation of One-Person Households due to Choices

	Model 1 (Basic model)	Model 2 (Individual-level model)	Model 3 (Diverse model)
Variable Name	Exp(B)	Exp(B)	Exp(B)
Sex of household head			
Male	5.039*	2.095*	2.290*
Female (***)	1.000	1.000	1.000
Age of household head			
15-29	-	110.699*	57.420*
30-44	-	22.726*	13.359*
45-59	-	5.432*	5.219*
60+ (***)	-	1.000	1.000
Education completed in single years		1.186*	1.165*
Receiving any payment			
Not receiving	-	-	3.818*
Retirement or Widowhood payment (***)	-	-	1.000
Other types of payment	-	-	3.239*
Type of place of residence			
Urban	-	-	1.710
Rural (***)	-	-	1.000
Table 4. continued			

	Model 1 (Basic model)	Model 2 (Individual-level model)	Model 3 (Diverse model)
Variable Name	Exp(B)	Exp(B)	Exp(B)
Region			
West	-	-	2.187
South	-	-	1.623
Central	-	-	1.582
North	-	-	2.026
East (***)	-	-	1.000
Working in a paid job			
Not working	-	-	1.000
Working	-	-	1.577
Wealth Status			
Poor (***)	-	-	1.000
Middle	-	-	1.603
Rich	-	-	1.278
Constant	0.311*	0.046*	0.007*
Nagelkerke R square	0.176	0.641	0.666

Note. (*) signs significance level is smaller than 0.01 (p<0.01)
(**) signs significance level is smaller than 0.05(p<0.05)
(***) signs the reference category

Individual and household level factors are included in the third model, the diverse model. In the sex variable, the male group has a significant value (p<0.05), and males' risk of living alone by choice is 2.290 times higher than females' risk. In terms of age, the 15-29 year-old group is 57.420 times more at risk than the reference group (65+ years old). The risk for 30-44 year-olds is 13.339 times higher than the reference group, again the risk for 45-59 year-olds is found 5.219 times higher than the reference group. For the model, the variable "education completed in single years" is marked as significant, besides, one unit increase in the education variable signifies 1.186 times more chance for the formation of one-person households based on choice.

Another variable "receiving any payment" and all sub-categories were found statistically significant. Not receiving any payment category has imposed 3.818 times higher risk while receiving other types of payment with 3.239 times more compared to reference category "receiving retirement or widowhood payments."

On the other hand, the type of place of residence and the region variables were found insignificant, although there can be seen 1.710 times more risk for the formation of one-person households in urban places compared to the rural reference category, and 2.187 times higher risk for the West, 1.623 times higher risk for the South, 1.582 times higher for the Central, and 2.026 times more for the North region in comparison with the East as the reference category.

Working in a paid job is also one of the variables in the model. The category "Working" has a risk of 1.577 times greater than "Not working," which is the reference category, but it is found statistically insignificant (p=0.207).

The last variable in the model is wealth status, which consists of three categories. The reference category is the Poorest-Poorer group. The Middle group has a 1.603 times higher risk than the reference group, whereas the Richer-Richest group has 1.278 times higher risk. However, all categories of wealth status are found insignificant (p>0.05). Therefore, the R square for the last model is 0.666, and the constant is 0.007.

Finally, when the logistic regression analysis for the risks of one-person households by the formation types was implemented, Nagelkerke's R-square for the final model has greater explanation degrees. The value was found 0.666 for the diverse model. Thus, this proves that the variables in the models explain the models and dependent variables well. Furthermore, the overall outputs of the models expose that in every stage of the logistic regression process, the explanatory power is increasing in the analysis. Together with this, the significance of each model did become under the cut value (p<0.01 or p<0.05). Moreover, the results on the confidence intervals for all three models were shown in Appendix A.

CONCLUSION

One-person households have become a rising trend in Turkey as a result of social, economic, cultural, and demographic changes in the society. However, the most important concept associated with the prevalence of one-person households is family structure change. Since the dataset about one-person households allows us to analyze the changes in family structure and rationalize this study's objects, the reason behind the rise and the characteristics of formation types of the households were examined.

The change in the family structure and the visibility of different household formations can be supported by modernization discussions. As can be stated, Turkey as a Mediterranean country shares close family relations but on the other hand has the capability of changing its norms by developing relations

with Western societies. Therefore, the transformation of households in North European, North American, and Scandinavian countries in the 1900s have been also observed in developing countries such as Turkey in the late 1900s. Some changes associated with the modernization process such as the postponement of marriage, increase in divorce rates, rise in educational level, and women's liberation have contributed to the formation of different households. It could be clearly stated that the changes in Turkish society are made more understandable by Modernization theory, which tries to give meaning to the change of the society and focuses on the economic and social changes in the world while doing this. The Developmental Idealism approach, which tries to find the local, familial, regional, and global basis of the changes in the society by establishing causality between the reasons and outputs. While the change in the family structure, which is tried to be interpreted with the Modernization theory, explains the change in the family structure to some extent by taking the experiences of the West as a source, the developmental idealism approach focuses on the relationship between the modern family behavior and the individuals' understandings. Moreover, it takes the ideals of societies and individuals as a factor. Although we try to explain the change in family structure with these approaches and reveal the basic features of the tendency to live alone as an output of Turkey's modernization phase, traditional realities and conditions stand out as important variables. In this regard, descriptive analyzes using both survey and registration data provide us with a framework and also help us in the statistical analysis of the tendency to live alone.

Depending on the results of the analyses, younger, educated, liberated, and wealthy people have a tendency to live alone by their choices. On the other hand, elderly people lose their spouses, with a majority of women living alone by circumstances. As people get older, the male majority in choice-based one-person households gives way to a greater representation of females in the circumstances group. In societies like Turkey, living alone as a woman is a very difficult situation, especially if you are old. Although Turkey has a lower proportion of elderly population compared to countries with a high tendency to live alone, this group is mostly represented among those living alone. However, this situation has become more individual and choice-oriented, similar to western practices, and the situations in which people live alone depending on their own will have become more visible over time.

The focus on the categorization of one-person households by the formation types has taken a crucial place in this article. The classification into two groups, people who live alone because of the conditions and those who choose to form one-person households, was decided depending on the literature and the descriptive results about one-person households' characteristics. Thus, it

was agreed to classify these people living alone based on their marital status. Since family and kinship relations occupy an important place in Turkey's way of living, the marriage institution also defines some key points in deciding to choose to live alone or be forced to do so. While analyzing the descriptive and multivariate analyses' results; sex, age, education status, and other economic and social variables have been considered. As seen in the outputs of the analyses, the female representation in one-person households has greater degrees compared to male members. In contrast, formed households based on choice are composed of males by a majority.

Thus, the choice for living alone reaches significant levels among people who are unmarried or divorced or living separately, with the highest education and welfare levels. In this classification, although men are close to living alone based on choice, the tendency to live alone based on circumstances decreases among women. In addition, even though the years in the education of the household heads in both formation types have an increasing trend across time, the circumstances category has the lowest levels of schooling for both females and males. On the other hand, it was found that there is a positive relationship between the formation of one-person households and the years in education as a result of the statistical analysis. This situation may be the harbinger of an ideational change that is often underlined in the theoretical framework. Besides all these discussions, the interrelated set of relations shows us the significance of following the hybridization approach to family and household structure change in relation to social, cultural, economic, and demographic determinants.

In addition to the modernization-based changes in households in Turkey, the individuality and tendency to move away from traditional lifestyles, as indicated by the developmental idealism approach, are among the important findings of this study. The educational status and wealth status of these people have improved. Therefore, it can be argued that the solo living tendency in Turkey has shifted from necessity to a matter of choice, as found in the literature review and the results of the analyses.

Living alone in consideration of age, gender, marital status, and education parameters should be regarded by the policymakers since it affects many areas from the housing sector to social services. Başlevent (2021) states that since it is not possible to return to the traditional household structure, it is clear that the prevalence of different household types, as well as the gender and age distribution, and income status of individuals living alone should be considered when developing mass housing and urban transformation projects. In addition, social service opportunities are essential for certain groups living alone, such as older adults, and the disabled.

NOTES

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APPENDICES

APPENDIX A. Logistic Regression Models for the Risk of Formation of One-Person Households due to Choices with 95% C.I. for EXP(B)

	95% C.I.for EXP(B)					
	Basic Model		**Individual Level Model**		**Diverse Model**	
	Lower	**Upper**	**Lower**	**Upper**	**Lower**	**Upper**
Sex of household head						
Male	3.783	6.713	1.394	3.147	1.485	3.529
Female	-	-	-	-	-	-
Age group of the household head						
15-29			15.406	795.419	7.332	449.668
30-44			10.372	49.796	5.067	35.218
45-59			3.547	8.319	3.244	8.397
60+					-	-
Education completed in single years			1.136	1.238	1.102	1.233
Receiving any payment						
Not receiving					2.069	7.048
Retirement or Widowhood payment					-	-
Other types of payment					1.681	6.242
Type of place of residence						
Urban					0.974	3.003
Rural					-	-
Region						
West					0.859	5.566
South					0.533	4.942
Central					0.587	4.264
North					0.666	6.157
East					-	-
Working in a paid job						
Not working					-	-
Working					0.777	3.200
Wealth Status						
Poor					-	-
Middle					0.856	3.002
Rich					0.667	2.449
Constant					-	-