



Determining the Factors Affecting the Levels of Need for Public Social Assistance of Households: Insights from the District of Konyaaltı, Antalya – TURKEY

Hanelerin Kamu Sosyal Yardım Muhtaçlık Düzeylerini Etkileyen Faktörlerin Belirlenmesi: Antalya İli Konyaaltı İlçesi Örneği – TÜRKİYE

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DETERMINING THE FACTORS AFFECTING THE LEVELS OF NEED FOR PUBLIC SOCIAL ASSISTANCE OF HOUSEHOLDS: INSIGHTS FROM THE DISTRICT OF KONYAALTI, ANTALYA - TURKEY

ABSTRACT

The main purpose of the study is to determine the levels of need of the households for public social assistance and the main factors affecting it. The study data were collected through a face-to-face survey with the beneficiaries of public social assistance and multinomial logistic regression model was used for data analysis. The results revealed that the households would be needy rather than less needy of social assistance if they receive family benefits rather than if they receive elders and disabilities benefits, but this probability would decrease if the monthly income of the individuals in the household increases by 1 TRY-Lira. In addition, the households would be more likely to move to the level of “highly needy” rather than “less in need” of social assistance if the age of the head of the household increases by one year, the number of individuals in the household increases by one person and if the households receive family benefits instead of elderly and disabled benefits. The findings of study would enable policymakers to improve public social assistance practices in Turkey.

Keywords: *Social Assistance, The Need Of Level, Multinomial Logistic Regression, Antalya, Turkey.*



HANELERİN KAMU SOSYAL YARDIM MUHTAÇLIK DÜZEYLERİNİ ETKİLEYEN FAKTÖRLERİN BELİRLENMESİ: ANTALYA İLİ KONYAALTI İLÇESİ ÖRNEĞİ - TÜRKİYE

ÖZ:

Çalışmanın ana amacı; hanelerin, kamu sosyal yardımına muhtaçlık düzeylerinin ve bunu etkileyen başlıca faktörlerin belirlenmesidir. Çalışma verileri, kamu sosyal yardımlarından yararlanan hanelerden yüz yüze anket yoluyla toplanmış ve veri analizinde çok terimli lojistik regresyon modeli kullanılmıştır. Araştırma sonuçlarına göre; bir hanenin sosyal yardıma muhtaç olma olasılığının, yaşlı ve engelli yardımlarından ziyade aile yardımlarından yararlanması durumunda artacağını ancak hane halkı bireylerinin aylık gelirinin 1 TL-Lira artması durumunda hanenin sosyal yardıma muhtaç olma olasılığının azalacağı görülmüştür. Ayrıca hane reisinin yaşı bir yıl artarsa, hanedeki birey sayısı bir kişi artarsa, eğer hane yaşlı ve engelli yardımları yerine aile yardımı alırsa; hanenin “az muhtaç” düzeyden

ziyade sosyal yardıma “çok muhtaç” düzeye geçme olasılığı daha yüksek olacaktır. Araştırma sonuçları, Türkiye’de daha verimli kamu sosyal yardım uygulamaları için politika belirleyicilere yarar sağlayacaktır.

Anahtar kelimeler: Sosyal Yardımlar, Muhtaçlık Düzeyi, Çok Terimli Lojistik Regresyon, Antalya, Türkiye.



INTRODUCTION

The primary goal of social policy is to reduce poverty (Haushofer and Fehr, 2014). Many controversies surround the definition of poverty so that different approaches are used to measure poverty (Atkinson, 1987). Accordingly, Barusch (2009) indicates that poverty is evaluated either in term of absolute or relative poverty. Absolute poverty refers to a situation where the income of a given household is below the minimum level to satisfy the basic needs whereas relative poverty refers to a situation where this income is noticeably inferior to the mean of the household income in a specific country and year. Commonly, relative poverty is used to design the poverty rate in developed countries and it refers to the ratio of the household whose income is under the poverty line-half of the median of the household’s income in the overall population.

Nevertheless, Alkire et al. (2015) indicate that there are two ways of evaluating poverty, which are mainly based on income even lonely income does not illustrate a comprehensive image of poverty. For this reason, poverty is often assessed through a multidimensional approach and Sen (1992) states that a multidimensional approach of poverty refers to the capability approach. With regards to the causes of poverty, they are commonly ranged into individualistic, societal, or structural, and fatalistic (Alesina and Angeletos, 2005; Da Costa and Dias, 2015; Schneider and Castillo, 2015). Therefore, the supporter of individualistic causes of poverty assumes that the poor are responsible for their status and are often stupid, effortless, and lazy (Cozzarelli et al., 2001). For the societal or structural group, poverty is interconnected to societal structure such as government policy, discrimination, or low salaries (Korn et al., 2015), and the pioneers of fatalistic causes of poverty postulate that poverty comes from uncontrollable external factors or bad luck (Alesina and Angeletos, 2005).

The determination of the causes of poverty plays an important role in assessing and fighting against poverty (World Bank, 2010). Defining who is poor is not sufficient, but apprehending the causes of poverty is necessary. Consequently, examining carefully the nature of poverty implies the notion of vulnerability, which refers to the possibility or risk of being poor or being in chronic poverty.

Coulombe and McKay (1996) and Grootaert (1997) found that economic and social factors like employment and education play a key role in determining poverty. Gang et al. (2002) note that in rural Indian caste and ethnic groups, education is a key determinant of poverty. Especially, they indicate that owing secondary education level is more likely to reduce the incidence of poverty. Okojie (2002) also noted that woman-headed households are significantly more likely to be poor than households headed by man, and the household's size is main factor affecting the poverty and welfare of the households. Javed and Asif (2011) declare that the employment status of the persons and the number of children in the households determines its income. Çağlayan and Dayıoğlu (2011) indicate that in Turkey the occupation of the household the head, the household income and the number of employees in the household determine the poverty status of the household.

On the other hand, Lahat and Menahem (2009) indicated that the understanding of the sources of poverty by the leaders could determine the choice of the types of poverty alleviation policy to implement, but commonly people perceive poverty as an income inequality (Schneider and Castillo, 2015). Consequently, Alesina and Angeletos (2005) underscore that the share of funding to address poverty might depend on the perception of the cause of poverty. Furthermore, Monnickendam et al. (2010) noted that the numerous perceptions of poverty could affect the policy targeting to address poverty.

During the last decades, social protection has gained much importance as a wide policy framework for alleviating poverty and vulnerability, especially in developing countries (Barrientos, 2010). The evident impact of social protection to enhance the population's well-being enables the expansion of social protection programs (Fiszbein and Schady, 2009; Fiszbein et al., 2013). Fiszbein et al. (2014) highlighted that within the scope of the agenda post-2015, social protection is "an instrument for the goals of reducing poverty, reducing inequality, reducing risk and vulnerability". For instance, Devereux et al. (2006) indicate that cash-transfer programs improve the formation of productive assets of the beneficiaries and contribute to long-run food security. Moreover, Niño-Zarazúa et al. (2012) and Fiszbein et al. (2013) explained that social protection programs are applied to address the roots of poverty and its sign and Fiszbein et al. (2014) indicated that social protection protects the basic levels of consumption, enables human capital investment and help the poor to cope with numerous challenges.

Still, there is increasing implementation of social protection, there is no sole definition of social protection, as well as its main complements, are not well defined. Though Devereux and Sabates- According to Wheeler (2004), social protection encompasses all public and private initiatives aimed at providing income or consumption transfers for the poor, protecting the vulnerable against threats to their livelihoods, and improving the social status and rights of the marginalized

groups. Brand (2001) indicates that social protection programs aim to deliver various benefits to the poor such as healthcare assistance, illness benefits, maternity, unemployment, and family assistance. Furthermore, social protection embraces private and public interventions to support the poor and vulnerable population to overcome various shocks (Devereux and Sabates-Wheeler, 2004; Brand, 2001).

World Bank classified the social protection programs into four main categories; social assistance, social insurance, labor market, and non-public transfers (Work bank, 2020). Though Fiszbein et al. (2014) indicated that the social assistance programs are the most widely performed amongst the social protection programs. However, many critics rise against the prioritization of social protection as a key instrument to alleviate poverty.

Devereux et al. (2006) and Harvey (2007) mentioned that the social protection grants are misused and therefore constitute a waste of scarce resources. Magen et al. (2009) highlight that social protection programs are incapable to overcome rapid inflation during deficit situations over time whilst Farrington et al. (2007) indicate that these programs encourage people to not engage in productive activities and lead the parents to withdraw the children from school and health control, especially at the end of the programs. In addition, Samson (2009) noted that the beneficiaries of social protection programs could stay unemployed or provide wrong information to maintain the eligibility status. Likewise, other scholars indicate that the social protection grants are insignificant to help the beneficiaries to exit from deprivations and poverty. Borraz and Gonzalez (2009) state that cash transfer programs promote dependency and affect negatively the labour market. Consequently, Chêne (2010) emphasized that financing social protection would reduce the public funding opportunities to invest in other priorities sectors such as roads, agriculture, security, and so on.

In this regard, through the literature above, it is evident that social protection programs become an important instrument in alleviating poverty, addressing its causes so that it represents a source of assets formation of the poor, and helping them to cope with diverse shocks. In addition, some scholars consider such programs as a waste of funding and resources, source of job disincentive, laziness, and dependency. This study is the first one, which attempts to investigate the factors predicting the household levels of need for public social assistance. Especially, it seeks to determine the household's key sociodemographic and economic factors and social assistance programs features that may predict the beneficiary household level of need for public assistance.

In this study, it was a question to determine: (1) what are the socioeconomic characteristics of the household beneficiaries of public social assistance? (2): what are the features of the delivered public social assistance programs? (3): what are the

households' levels of need for public social assistance? (4) Which factors predict the levels of need of households for public social assistance?

1. METHODOLOGY

1.1. Study Area

This study was undertaken in Konyaaltı, one of the districts of the province of Antalya. In 2020, the district of Konyaaltı accounts for 189,087 inhabitants with a population density of 298,553 inhabitants per km² and is located at the western (Antalya Directorate of the Population of Konyaaltı, 2021) (see Figure 1).

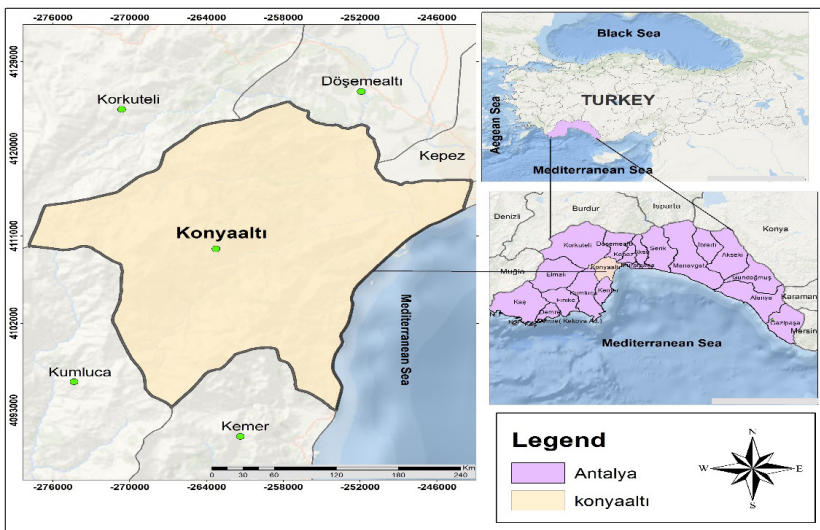


Figure 1. The study area (The authors)

1.2. Sampling Technique and Data Collection

The study data were collected in the district of Konyaaltı, which is one of 10 districts of the province of Antalya. In Turkey, each regional province has an office of social assistance and solidarity Foundation, which is responsible for public social assistance and services. Therefore, the study sample constituted of 100 households all beneficiaries of public social assistance were selected purposively from an official list of the social assistance and solidarity Foundation of the district of Konyaaltı. Primary data were collected through a household survey. The questionnaire included the socio-demographic and economic characteristics of the respondents. This includes the age, sex, and educational levels of the household's head, the num-

ber of individuals in the household and their employment status, their monthly income. Besides, it includes the characteristics of social assistance programs such as the type of social assistance programs, the frequency of delivering this assistance, the number of assistance programs per household, the public source of the social assistance, and the monthly amount of social assistance.

1.3. Data Analysis

1.3.1. Descriptive Statistics

Descriptive statistics such as frequency and percentage were used to describe the respondents' sociodemographic and economic characteristics, the features of social assistance programs, and the levels of need of the households for social assistance. Firstly, the assistance-income ratio was calculated, and accordingly, the households' levels of need for public social assistance were determined. The assistance-income ratio was calculated by dividing the monthly amount of social assistance received by a household by the monthly income of the household. All in-kind assistance was converted into Turkey's national currency (TRY-Turkish Lira) by considering the assistance items by their corresponding market price. Though the household internal assistance between the members and relatives was excluded and only external assistance received from public institutions was considered. The assistance-income ratio was calculated as follows:

$$Ar = \frac{As}{Ge}$$

Where Ar refers to the assistance-income ratio, As the monthly amount of assistance received by the household and Ge the monthly income of the household. The households were classified according to the values of assistance-income ratio into less needy, needy, and very needy for public social assistance (Table 2).

Table 1. Levels of need for public social assistance

Assistance-Income Ratio (Ar)	Levels Of Need for Public Social Assistance
$Ar < 1$	Less Needy
$1 \geq Ar < 2$	Needy
$2 \geq Ar$	Very Needy

1.3.2 Multinomial logistic regression

Multinomial logistic regression was used to determine the relative risk ratios or probabilities of the household levels' need for public social assistance. It is an extended version of a binary logistic regression model in which dependent variable includes more than two levels or categories. Additionally, the dependent variable of multinomial logistic regression might include more than two categories but the results of the model may be more understandable if the dependent variable has only three (3) categories (Hosmer et al., 2013). Agresti (2007) indicated that a basic logistic regression model could be as follows:

$$\text{Log}(\pi_j / \pi_1) = \alpha_j + \beta_j x_j \quad j = 1, \dots, j - 1$$

Where α_j are intersections of the $J - 1$ equation with individual parameters for each equation. In this study, the levels of need for social assistance were considered dependent variable (y), and some selected household sociodemographic and economic factors and features of social assistance programs as independent variables. It is assumed that the household's sociodemographic and economic factors and social assistance programs characteristics could predict the households' levels of need for social assistance. The general specification of the level of need for social assistance model is as follows:

$$\text{Level of benefit for social assistance} = (X_1, X_2, X_3, X_4, X_5, X_6)$$

The households' levels of need for assistance consisted of three-categorical variables ranging from 1 to 3. Some variables from the survey questionnaire were used as explanatory variables (x) of the multinomial logistic regression model. These categorical variables were "1" indicates "less needy level", "2" indicates "needy level", and "3" indicates "very needy level" for social assistance. X_1 is a continuous variable that refers to the age of the household's head, X_2 is a continuous variable and denotes the number of individuals in the household, X_3 is a continuous variable and indicate the number of employees in the household, X_4 is categorical, which states for the group of social assistance and ranged from 1 to 2. "1" indicates "elder and disability assistance group" and 2 indicates "family assistance group", X_5 is a continuous variable and indicates the number of social assistance programs benefited per household. Other independent variables include X_6 a categorical variable indicating the public source of assistance and ranged from 1 to 2. "1" indicates social assistance and solidarity foundation, "2" indicates the municipality, and "3" indicates both municipality and social assistance and solidarity foundation. Then X_7 is a continuous variable and refers to the monthly income of the household.

2. RESULTS

2.1. Sociodemographic and Economic Characteristics of the Households

Table 2 presents the households sociodemographic and economic characteristics. It showed that women-headed most households (57%), widows headed 50% of the households, 43% of the household's heads were illiterate and 43% of them was elder than 59 years. In addition, 88% of the household between 1-4 persons, 51% of them did not have any employed person and the monthly income of the household (53%) ranged between 500-1000 TRY-Turkish Lira.

Table 2. Sociodemographic and economic characteristics of the households (N=100)

Variables		Frequency (n)*	Percentage* (%)
Head of the Household			
Age	36-59 Years Old	35	35
	60-80 Years Old	30	30
	More Than 80 Years Old	35	35
Gender	Male	43	43
	Female	57	57
Marital Status	Married	45	45
	Single	5	5
	Widow	50	50
The Educational Level	Illiterates	43	43
	Primary-Secondary School	47	47
	High School	5	5
	University	5	5
Individuals of the Household			
Number of Individuals	1-4 Persons	88	88
	5-7 Persons	10	10
	More Than 7 Persons	2	2
Number of Employees	No One	51	51
	One-Two Persons	47	47
	More Than Three Persons	2	2
Monthly Earned-Income (TRY)	500-100	53	53
	1001-2000	25	25
	More Than 2000	22	22

*The total number of surveyed households is 100 so that frequencies value equal percentage ones.

2.2. Levels of Need for Social Assistance and Social Assistance Programs Features

Table 3 presents the levels of need for assistance and the characteristics of assistance programs. It showed that 50% of households were less needy, 35% were needy and 15% of them were very needy for public social assistance. Most households have received only one social assistance program. In addition, most of less needy households (80%) and needy households (57.14%) received social assistance one time every month whilst most very needy households (80.00%) received this assistance one time every two months. Furthermore, the social assistance and solidarity Foundation was the main public source of social assistance while very needy households received the highest monthly amount of public assistance (1541.89 TRY-Turkish Lira) (Table 3).

Table 3. Levels of need for social assistance and social assistance programs features

Variables		Less Needy Level		Needy Level		Very Needy Level	
		Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Level of Need for Public Assistance		50	50	35	35	15	15
Number of Social Assistance Programs Received Per Household	One	29	58	35	100	15	100
	Two	16	32	0	0	0	0
	Three	5	10	0	0	0	0
TOTAL		50	100	35	100	15	100
Delivery Frequency of Social Assistance Programs	One Time Every Month	40	80	20	57.14	1	6.67
	One Time Every Two Months	3	6	13	37.14	12	80.00
	One Time Every Three Months	3	6	1	2.86	1	6.67
	Three Times Per Year	1	2	1	2.86	0	0
	Sometimes	1	2	0	0	1	6.67
	During Ramadan	2	4	0	0	0	0
	TOTAL	50	100	35	100	15	100

Public Source of Social Assistance	SASF	43	86	31	88.57	12	80
	Municipality	2	4	2	5.71	2	13.33
	Both Municipality and SASF	5	10	2	5.71	1	6.67
TOTAL		50	100	35	100	15	100
The Monthly Amount of So- cial Assistance Per Household (TRY)		906.05		755.98		1541.89	

SASF states for social assistance and solidarity foundation

2.3. Factors Affecting the Levels of Need for Public Social Assistance of Households

Table 4 showed that the age of the household's head, the number of individuals in the household, the monthly income of the household, and the group of social assistance programs received by the household were significant factors affecting the levels of need for public social assistance of households. Accordingly, if the household consists of people who benefit from family assistance programs instead of the elderly and disabled group (*Ceteris Paribus*) with the same characteristics, the relative probability of being needy level for social assistance rather than being less needy for social assistance is 84.6071 times more likely. In addition, the relative probability of being needy level for social assistance rather than being less needy for social assistance is 0.9903 times less likely or 0.97% lower if the monthly income of the household increases by 1 TRY-Lira when the other variables in the model are held constant.

On the other hand, the relative probability of the household of being very needy level for social assistance rather than being less needy for social assistance is 1.155 times more likely or 15.5% higher if the age of the household's head increases by one year (*Ceteris Paribus*). The relative probability of being very needy level for social assistance rather than being less needy for social assistance is 5.4749 times more likely if the number of individuals in the household increases by one person (*Ceteris Paribus*). In addition, the relative probability of being very needy level for social assistance rather than being less needy for social assistance is 249.32 times more likely if the household is beneficiary of family assistance programs rather than elders and disabilities programs with the same characteristics (*Ceteris Paribus*). Then, the relative probability of being very needy level for social assistance rather than being less needy for social assistance is 0.9798 times less likely or 2.02% lower if the monthly income of the household increases by 1 TRY-Lira (*Ceteris Paribus*).

Table 4. Factors affecting the levels of need for public social assistance of households

Need Level for Social Assistance	Coef.	Std. Err.	z	P>z	RRR
Less Needy Level for Social Assistance (Reference Level)					
Needy Level for Social Assistance (Equation 1)					
Age of the Head of the Household	0.072	0.0493	1.5700	0.1150	1.0749
Number of Individuals in the Household	0.6371	1.3629	0.8800	0.3770	1.8911
Number of Employees in the Household	1.144	3.6929	0.9700	0.3310	3.1400
Group of Social Assistance (Reference: Elder and Disability Group)					
Family Assistance	4.4380	195.1617	1.9200	0.0540*	84.6071
Number of Social Assistance Programs Benefited Per Household	-0.8671	0.4053	-0.9000	0.3690	0.4202
Source of Assistance (Reference: Social Assistance and Solidarity Foundation)					
Municipality	-16.950	0.0001	-0.0100	0.9910	0.0000
Both Social Assistance and Solidarity Foundation and Municipality	1.2176	7.4551	0.5500	0.5810	3.3794
Monthly Income of the Household	-0.0097	0.0035	-2.7700	0.0060**	0.9903
Intercept	2.9795	69.7172	0.8400	0.4000	19.6797
Very Needy Level for Social Assistance (Equation 2)					
Age of the Chief of the Household	0.1444	0.0731	2.2800	0.0220**	1.1555
Number of Individuals in the Household	1.7001	4.7190	1.9700	0.0490**	5.4749
Number of Employees in the Household	0.7064	2.7795	0.5200	0.6060	2.0268
Group of Social Assistance (Reference: Elder and Disability Group)					
Family Assistance	5.5187	707.8404	1.9400	0.0520**	249.3297
Number of Social Assistance Programs Benefited Per Household	0.2925	1.5266	0.2600	0.7970	1.3398
Source of Assistance (Reference: Social Assistance and Solidarity Foundation)					
Municipality	-14.6345	0.0011	-0.0100	0.9950	0.0000
Both Social Assistance and Solidarity Foundation and Municipality	0.8138	5.5654	0.3300	0.7410	2.2565
Monthly Income of the Household	-0.0204	0.0090	-2.2200	0.0260**	0.9798
Intercept	-2.3413	0.5978	-0.3800	0.7060	0.0962

2.4. Multi Collinearity

The variance inflation factor (VIF) was used to determine which to extend the variance of the estimate coefficients of the model were inflated by multicollinearity. Midi et al. (2010) indicated that the VIF whose values exceed 10 is commonly considered as an indicator of the existence of multicollinearity between the explanatory variables. In weak models such as logistic regression, a value of VIF greater than 2.5 might be a cause for concern. The VIF values of each explanatory variable in the model and the overall mean VIF (1.39) are less than 2.5. Accordingly, there is no existence of interdependency between the explanatory variables used in the model (Table 5).

Table 5. Variance - Inflation Factor (VIF) statistics

Variables	VIF	1/VIF
Employees in the Household	1.54	0.647
Monthly Income of the Household	1.5	0.664
Number of Social Assistance Programs Received by Household	1.46	0.687
Individuals in the Household	1.41	0.710
Assistance Source	1.32	0.757
Social Assistance Group	1.09	0.918
Mean VIF	1.39	

3. DISCUSSION

Table 4 showed that the beneficiary households of public social assistance are ranged in less needy, needy, and very needy levels. Most households were less needy for public social assistance while most needy and very households received only one assistance program delivered one time every month. Most very needy households received one social assistance program that was delivered mostly one time every two months. In addition, the study showed that amongst the public source of social assistance the social assistance and solidarity Foundation is the main source of delivered social assistance in the province of Antalya. Besides, the very needy households received the highest monthly amount of public social assistance of 1541.89 TRY-Turkish Lira whilst the needy households received the lowest average of public assistance of 755.98 TRY-Turkish Lira per month.

The logistic regression analysis showed that the age of the household's head, the number of individuals in the household, the monthly income of the household, and the group of social assistance programs received by the household were significant factors in predicting the needy level of the household for public social assis-

tance. Accordingly, the relative probabilities of the households of being needy and very needy for social assistance rather than being less needy for social assistance are 84.6071 times more and 249.32 times more likely if they are beneficiaries of family assistance programs rather than elders and disabilities groups with the same characteristics (*Ceteris paribus*). This could be due that the amount of social assistance delivered to the beneficiary household depending on the type of programs, which is related to a given social assistance group.

In addition, the relative probabilities of the households being needy and very for social assistance rather than being less needy for social assistance are 0.97% lower and 2.02% lower if the monthly income of the households increases by 1 TR-Y-Lira respectively when the other variables in the model are held constant. In Turkey, the evaluation of the application for social assistance is based on income so the higher the income the less likelihood of obtaining social assistance. However, some social assistance programs such as disability and health care include other criteria such as the degree of disability and the type of sickness. This result is consistent with researches of Çağlayan and Dayıoğlu (2011) and Mdluli and Dunga (2021) who indicated that the household income is a key determinant of the poverty status of the household in Turkey and South Africa respectively.

On the other hand, the results of the regression analysis revealed that the relative probability of of the household of being very needy level for social assistance rather than being less needy for social assistance is 1.155 times more likely or 15.5% higher if the age of the household's head increases by one year (*Ceteris paribus*). This could be explained by that the elder the head of the household the less he/she could be engaged in productive activities. Similarly, Çağlayan and Dayıoğlu (2011), Mdluli and Dunga (2021) and Demissie and Kasie (2017) noted that the age of the household's the head is a key determinant of the household poverty. The relative probability of being very needy level for social assistance rather than being less needy for social assistance is 5.4749 times more likely if the number of individuals of the household increases by one person (*Ceteris Paribus*). Therefore, the more the number of individuals of the household, the more they require more income to satisfy their living conditions. Previously, Sekhampu (2013), Serumaga Zake and Naude (2002), Geda et al. (2005) and Deressa (2013) highlighted that the size of the household determines its likelihood to be vulnerable to poverty.

The study showed some socioeconomic characteristics and the features of the social assistance programs determine the relative risk of the household of being either needy or very needy for public social assistance compared to less needy level. The group of social assistance and the monthly income of the household were common predictors of the household needy and very levels for public social assistance. Furthermore, the age of the household's head and the number of individuals in the household were significant predictors of the household's very needy level for public.

4. CONCLUSION AND RECOMMENDATIONS

This study investigates the factors affecting the levels of need for public social assistance of households in the province of Antalya in Turkey. It showed that the household headed by the elders would be more likely to be very needy for public social assistance compared to the less needy level. The findings of the study revealed that an increase in the monthly income of the households would reduce likely its level of need for public social assistance. The study also showed that the group of the social assistance would predict the relative probability of the household of being needy and very needy for public social assistance. Consequently, Turkey policymakers should consider such criteria in evaluating the application for public social assistance. This could improve the effectiveness of public social assistance and therefore enhance the chance of the beneficiaries to escape from chronic poverty and deprivation.

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Yazar Katkı Oranları

Çalışmanın Tasarlanması (Design of Study): Hamidou Taffa Abdoul-Azize (50%); Cengiz SAYIN (50%)

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REFERENCES

- Agresti, Alan (2018). *An introduction to categorical data analysis*. John Wiley & Sons.
- Alesina, Alberto and Angeletos, George-Marios (2005). "Fairness and redistribution". *American Economic Review* 95(4): 960-980.
- Alkire, Sabina, Foster, James vd. (2015). *Multidimensional poverty measurement and analysis*. USA: Oxford University Press.
- Atkinson, A. B. (1987). "On The Measurement of Poverty." *Econometrica: Journal of the Econometric Society* 55(4): 749-764.
- Barrientos, Armando (2010). *Social Protection and Poverty*. <https://cdn.unrisd.org/assets/library/papers/pdf-files/barrientos-pp.pdf>.
- Barusch, Amanda Smith (2009). *Foundations Of Social Policy: Social Justice in Human Perspective*. United States: Cengage Learning.
- Borraz, Fernando, and González, Nicolas (2009). "Impact of the Uruguayan conditional cash transfer program." *Cuadernos De Economia* 46(134): 243-271.
- Brand, Horst (2001). "World Labour Report 2000: Income Security and Social Protection in A Changing World." *Monthly Labor Review* 124(6): 47-47.
- Caglayan, Ebru and Dayioglu, Tuğba (2011). "Comparing The Parametric and Semiparametric Logit Models: Household Poverty in Turkey." *International Journal of Economics and Finance* 3(5): 197-207.
- Chêne, Marie (2010). *Corruption Prevention Strategies in Cash Transfer Schemes*. U4 Expert Answers, 1-9.
- Coulombe, Harold and McKay, Andrew (1996). "Modeling Determinants of Poverty in Mauritania." *World Development* 24(6): 1015-1031.
- Cozzarelli, Catherine; Wilkinson, Anna V. and Tagler, Michael J. (2001). "Attitudes Toward the Poor and Attributions for Poverty." *Journal of Social Issues* 57: 207-227.
- Da Costa, Leonor Pereira and Dias, Jose G. (2015). "What Do Europeans Believe to Be The Causes of Poverty? A Multilevel Analysis of Heterogeneity Within and Between Countries." *Social Indicators Research* 122(1): 1-20.
- Demissie, Birhan Sisay and Kasie, Tesfahun Asmmav (2017). "Rural Households' Vulnerability to Poverty in Ethiopia." *Journal of Poverty* 21(6): 528-542.
- Deressa, Dereje Fekadu (2013). "Assessing Households Vulnerability to Poverty in Rural Oromiya-Ethiopia." *Journal of Economics and Sustainable Development* 4(8): 110-117.
- Devereux, Stephen and Sabates-Wheeler, Rachel (2004). *Transformative Social Protection*. <https://opendocs.ids.ac.uk/opendocs/bitstream/handle/20.500.12413/4071/Wp232.pdf?sequence=1&isAllowed=y>
- Devereux, Stephen; Mvula, Peter and Solomon, Colette (2006). "After the Fact: An Evaluation of Concern Worldwide's Food and Cash Transfers Project in Three Districts of Malawi." London: Concern Worldwide Directorate of the Population of Konyaalti: https://www.nufusu.com/ilce/konyaalti_antalya-nufusui Accessed at 02.05.2021
- Farrington, John; Sharp, Kay and Sjoblom, Disa (2007). *Targeting Approaches to Cash Transfers: Comparisons Across Cambodia, India and Ethiopia*. London: ODI.
- Fiszbein, Ariel, and Schady, Norbert R. (2009). *Conditional Cash Transfers: Reducing Present and Future Poverty*. World Bank Publications.
- Fiszbein, Ariel; Kanbur, Ravi and Yemtsov, Ruslan (2013). "Social Protection, Poverty and The Post-2015 Agenda." *World Bank Policy Research Working Paper*, No: 6469.
- Fiszbein, Ariel; Kanbur, Ravi and Yemtsov, Ruslan (2014). "Social Protection and Poverty Reduction: Global Patterns and Some Targets." *World Development* 61: 167-177.
- Gang, Ira N.; Sen, Kunal and Yun, Myeong-Su. (2002). *Caste, Ethnicity and Poverty in Rural India*. Available at SSRN 358160.
- Geda, Alemayehu; De Jong, N Niek; Mwabu, G Germano and Kimenyi, Mwangi S. (2001). "Determinants of Poverty in Kenya: A Household Level Analysis." *ISS Working Paper Series/General Series* 347: 1-20.
- Grootaert, Christiaan (1997). "The Determinants of Poverty in Cote d'Ivoire in the 1980s." *Journal of African Economies* 6(2): 169-196.
- Haines, Richard and Wood, Geoffrey (2002). "Unemployment, Marginalisation and Survival in Greater East London." *Development Southern Africa* 19(4): 573-581.
- Harvey, Paul (2007). "Cash? Based Responses in Emergencies." *IDS Bulletin* 38(3): 79-81.

- Haushofer, Johannes and Fehr, Ernst (2014). "On the Psychology of Poverty." *Science* 344(6186): 862-867.
- Hosmer, David W., Lemeshow, Jr. Stanley, and Sturdivant, Rodney X. (2013). *Applied Logistic Regression* (Vol. 398). UK: John Wiley & Sons.
- Javed, Zahoor Hussain and Asif, Ayesha (2011). "Female Households and Poverty: A Case Study of Faisalabad District." *International Journal of Peace and Development Studies* 2(2): 37-44.
- Korn, Liran; Malul, Miki and Luski, Israel (2015). "Employment as a Poverty Trap." *Journal of Employment Counseling* 52(3): 110-120.
- Lahat, Lihi and Menahem, Gila (2009). "Causes and Remedies for Poverty: Perceptions Among Local Elected Leaders in Israel." *Poverty & Public Policy* 1(2): 1-31.
- Magen, Benjamin B.; Donovan, Cynthia and Kelly, Valerie A. (2009). "Can Cash Transfers Promote Food Security in the Context of Volatile Commodity Prices? A Review of Empirical Evidence." MSU International Development Working Paper, Michigan: Michigan State University.
- Mdluli-Maziya, Phindile and Dunga, S. (2022). "Determinants of Poverty in South Africa Using the 2018 General Household Survey Data." *Journal of Poverty* 26(3): 197-213.
- Midi, Habshah; Sarkar, S. K. and Rana, Sohel (2010). "Collinearity Diagnostics of Binary Logistic Regression Model." *Journal of Interdisciplinary Mathematics* 13(3): 253-267.
- Monnickendam, M.; Katz, C., and Monnickendam, M. S. (2010). "Social Workers Serving Poor Clients: Perceptions of Poverty and Service Policy." *British Journal of Social Work* 40(3): 911-927.
- Niño-Zarazúa, Miguel; Barrientos, Armando; Hickey, Samuel and Hulme, David. (2012). "Social Protection in Sub-Saharan Africa: Getting the Politics Right." *World Development* 40(1): 163-176.
- Okojie, Christiana E. E. (2002). *Gender and Education as Determinants of Household Poverty in Nigeria* (No. 2002/37). Wider discussion paper.
- Samson, M. (2009). *Social Cash Transfers and Pro-Poor Growth in Promoting Pro-Poor Growth: Social Protection*, 43-59.
- Schneider, Simone M. and Castillo, Juan C. (2015). "Poverty Attributions and the Perceived Justice of Income Inequality: A Comparison of East and West Germany." *Social Psychology Quarterly* 78(3): 263-282.
- Sekhampu, Tshediso Joseph (2013). "Determinants of Poverty in South African Township." *Journal of Social Sciences* 34: 145-153.
- Sen, Amartya (1992). *Inequality Reexamined*. US: Harvard University Press.
- Turkey Ministry of Family and Social Assistance Policies (2019). <http://sosyalyardimlar.aile.gov.tr/>. Accessed at 21.03.2019.
- World Bank. (2020). <https://www.worldbank.org/en/data/datatopics/aspire#1>. Accessed at 12 April 2021.