Analysis of Factors Affecting Individuals' Sources of Happiness with Multinomial Logistic Model

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Abstract

The happiness levels of individuals and their sources of happiness have been wondered a lot and researched from past to present. The aim of this study is to examine the factors that affect individuals' sources of happiness. The data set of the study was obtained from the Life Satisfaction Survey of the Turkish Statistical Institute. 9212 individuals were included in the study. In the study, chi-square independence tests were conducted to examine the relationship between the source of happiness and the independent variables included in the model, and multinomial logistic regression analysis was applied to determine the factors that may have an effect on the sources of happiness of individuals. As a result of the study, it has been determined that the factors of the individual's age, gender, marital status, educational status, satisfaction with income level, welfare level, life satisfaction, satisfaction with a social life are effective on sources of happiness. At such a time when it is clear that the coronavirus epidemic adversely affects many aspects of our lives, especially our psychology, and will leave a mark on our tomorrows, and the activities of decision-makers and policymakers are shed light through the study in order to increase the happiness of individuals and to ensure that the future will be better.

Key Words: Happiness, the economics of happiness, subjective well-being, microeconometrics, discrete choice model

INTRODUCTION

Happiness is a positive emotion that makes an individual's life meaningful and valuable (Muthuri, Senkubuge & Hongoro, 2020). Happiness, life satisfaction, subjective well-being have always been the focus of attention of researchers, especially social sciences. Long-term happiness is possible when we gain acquisitions for our values or goals (Diener, Sapyta & Suh, 1998; Pollock et al., 2015). Values and goals can have different meanings for each individual, and this situation has made it valuable to examine the factors affecting the sources of happiness of individuals and has been a source of motivation for this study. The aim of the study is to examine the factors that affect success, health, love, money, work, and other resources, which are the sources of happiness of individuals and will touch the spirit of individuals, and even societies, for decision-makers and policymakers, and the aim of this study is to be a guide that will contribute to making them happy.

In the body of literature, the concepts of subjective well-being, happiness, and life satisfaction are intertwined. In his study, Diener (2016) defined subjective well-being as a scientific term used for happiness and life satisfaction. There are many studies examining the effect of subjective well-being on different issues. As a result of the examining that Winkelmann (2005) conducted on the factors affecting the subjective well-being of individuals with the ordinal probit regression model; it has been determined that there is a "u" relationship between age and subjective well-being, unemployment negatively affects subjective well-being, and health is an important determinant of subjective well-being. Similarly, Chen and Short (2008), who investigated the effects of households on the subjective well-being of individuals, determined that subjective well-being of lonely individuals is lower, living with a close family (spouse or children) positively affects subjective well-being, health, education, and financial independence positively affects subjective well-being. Likewise, some studies examined subjective well-being with

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more specific titles. Carandang et al. (2020) examined the subjective well-being of individuals over the age of 60 through hierarchical regression analysis and as a result, they identified that psychological resilience is the strongest predictor of subjective well-being, and health has a positive effect on subjective well-being for both men and women. Schnepf (2010) examined gender differences in terms of subjective well-being with logistic regression analysis and found that the gender difference in subjective well-being was more dominant in post-communist countries than in OECD countries, and highly educated women had lower subjective well-being than men. Scorssolini-Comin and Santos (2011) examined the relationship between marriage and subjective well-being with multiple regression analyses and found that subjective well-being had a positive effect on marriage. Ngamaba, Panagioti, and Armitage (2017) and Bussière, Sirven, and Tessier (2021) investigated the relationship between subjective well-being and health in their studies and found that there was a positive relationship between the health status of individuals and their subjective well-being. Minarro et al. (2021), on the other hand, examined the relationship between money and subjective well-being and found that subjective well-being cannot be achieved by earning a lot of money.

Warner Wilson, who made important contributions to the field of subjective well-being in 1967, stated in his study that a happy person was "a young, healthy, well-educated, well-paid, extroverted, optimistic, worry-free, religious, married person and has high self-esteem and job satisfaction" (as cited in Diener et al., 1999). Despite the diversity in definitions of happiness, studies show that an increase in individual happiness improves not only the individual but also the community in which he or she resides (Elliot, Cullen, and Calitz, 2018). With the examination of the factors affecting people's happiness, subjective well-being, or life satisfaction, useful information can be obtained in order to reach happy individuals and, therefore happy societies. Thus, the concept of happiness should not be considered as a psychological phenomenon only and should be handled sophisticatedly. While Bülbül and Giray (2011) analyzed the relationship between sociodemographic characteristics and perception of happiness with canonical regression analysis, they determined that the happiness level of men with a job, secondary school graduates, and low incomes is in the medium and high level, Akın and Şentürk (2012) determined that although the level of happiness differed in terms of demographic characteristics, it gave basically similar results as a result of examining the factors affecting the level of happiness with ordinal logistic regression analysis. Çağlayan-Akay and Timur (2017), who investigated the factors affecting the happiness of women and men with the ordinal logistic regression model, found that economic factors were effective on happiness, and being hopeful positively affected the probability of being happy for women and men. Moyano-Diaz, Mendoza-Llanos, and Paez-Rovira (2021), on the other hand, found that loneliness and inadequate communication negatively affected people's happiness as a result of examining the socio-psychological aspects of being happy with hierarchical regression analysis.

In this study, the life satisfaction survey conducted by the Turkish Statistical Institute was used and the Discrete Choice Model, which is appropriate for the dataset, was applied and the results were presented. In the continuation of the study, first, the methodology was discussed, then the findings and the model prediction results were included. In the conclusion and evaluation part, evaluations related to the literature are presented both in terms of happiness levels and sources of happiness.

METHOD

Sample

In this study, survey data obtained through the Life Satisfaction Survey conducted by the Turkish Statistical Institute in 2019 were used. Household members aged 18 and over living within the borders of the Republic of Turkey were included in the survey. The sampling method of the research is two-stage stratified cluster sampling. In the micro data set, there are data on various subjects such as happiness, level of life satisfaction, satisfaction in basic living areas, education, health, level of hope (Turkish Statistical Institute, [TURKSTAT], 2021). A total of 9212 people who participated in the Life Satisfaction Survey in 2019 were included in this study.

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Variables

The dependent variable used in the study is the sources of happiness. This variable is measured with the statement "What makes you happy the most in life? (Success; Health; Love; Job; Other)". Within the study, job, money, and other options were combined and assigned to a single category due to their low observation content. Thus, the dependent variable categories are; 1 for Success, 2 for Health, 3 for Love, 4 for Job, Money, and Other.

A literature review was conducted for the independent variables in the study. Afterward, chi-square analyzes were made, and independent variables were included in the model. In the study, sociodemographic, economic, and individual factors that may be effective on individuals' sources of happiness were taken as independent variables. Age (18-27,28-37, 38-47, 48-57, 58-67, 68 and +), gender, an education level (not finished school, primary school graduate, secondary-primary school graduate, high school graduate, college-faculty graduate, 5 or 6-year college postgraduate), marital status (married, single, widowed-divorced) variables are sociodemographic factors. Employment status of the individual (working, not working but still related to his job-not working), satisfaction with monthly income level (satisfied (very satisfied-satisfied), medium, not satisfied (not satisfied-not satisfied at all)), welfare level (low (0,1,2,3,4), medium (5), high (6,7,8,9,10)) variables are economic factors. Individual's level of happiness (happy (very happy-happy), moderate, not happy (unhappy-very unhappy)), those who make happy (self, children-spouse, whole family-niece-granddaughter, other-friends) life satisfaction (not satisfied (0,1,2,3,4), moderate (5), satisfied (6,7,8,9,10)), satisfaction with health (satisfied (very satisfied-satisfied), moderate, dissatisfied (not satisfied) not satisfied at all)), satisfaction with the education he received (satisfied (very satisfied-satisfied) medium, not satisfied (not satisfied-not satisfied at all), not educated)), satisfaction with his social life (satisfied (very satisfied-satisfied), moderate, dissatisfied (not satisfied at all)), hope (very hopeful-hopeful, hopeless-very hopeless), past comparison (improved, same, regressed, no idea), future comparison (will improve, same, regressed, no idea) variables are individual factors.

Data Analysis

Microsoft Excel was used to make the data suitable for analysis, SPSS 20 for chi-square independence tests and Stata 14.1 for multinomial logistic regression analysis were used.

The discrete choice models, which are the backbone of empirical analysis for many fields, including economics, psychology, transportation, public policy, are used to estimate the probability of choosing an alternative under the assumption that decision-makers will maximize utility among finite alternatives (Ben-Akiva & Bierlaire, 1999; Garrow, 2016; Newman, Lurkin & Garrow, 2018). The multinomial logistic regression model, which is one of the discrete choice models, is applied when the dependent variable contains three or more categories without being subjected to an order (Koppelman & Wen, 1998).

Since the dependent variable of the study is the sources of happiness of individuals, multinomial logistic regression model, which is one of the discrete choice models, was used in the analysis of the data due to the categorical nature of the dependent variable

In the study, firstly, the frequencies and percentages of the individuals participating in the study were calculated according to their sources of happiness. Afterward, chi-square independence tests were conducted to examine the relationship between the source of happiness and the independent variables included in the model, and multinomial logistic regression analysis was applied to determine the factors that may have an effect on the sources of happiness of individuals.

RESULTS

Descriptive Statistics and Chi-square Tests

The independent variables that may be effective on the happiness sources of individuals within the study and the frequency values of their categories are shown in Table 1.

Table 1. Frequencies and Percentages of Sociodemographic, Economic and Individual Factors According to Individuals' Sources of Happiness

Variables	f(%)	Sources of Happiness			
		Success	Health	Love	Job, Money, and Other
Sociodemographic Indicators					
Age					
18-27	1589(17.2)	319(41.9)	881(13.5)	252(18.5)	137(24)
28-37	1844(20)	155(20.3)	1238(19)	327(24)	124(21.7)
38-47	1979(21.5)	147(19.3)	1421(21.8)	304(22.4)	107(18.7)
48-57	1586(17.2)	78(10.2)	1202(18.4)	225(16.5)	81(14.2)
58-67	1183(12.8)	43(5.6)	917(14.1)	140(10.3)	83(14.5)
68 and more	1031(11.2)	20(2.6)	859(13.2)	112(8.2)	40(7)
Gender					
Male	4226(45.9)	455(59.7)	2845(43.6)	590(43.4)	336(58.7)
Female	4986(54.1)	307(40.3)	3673(56.4)	770(56.6)	236(41.3)
Marital Status					
Never Married	1597(17.3)	371(48.7)	842(12.9)	220(16.2)	164(28.7)
Married	6702(72.8)	358(47)	4967(76.2)	1023(75.2)	354(61.9)
Divorced-Widowed	913(9.9)	33(4.3)	709(10.9)	117(8.6)	54(9.4)
Educational Status					
Not Finish A School	1260(13.7)	19(2.5)	1019(15.6)	142(10.4)	80(14)
Primary School	2982(32.4)	132(17.3)	2266(34.8)	412(30.3)	172(30.1)
Secondary School	1385(15)	115(15.1)	955(14.7)	221(16.3)	9416.4)
High School	1827(19.8)	262(34.4)	1166(17.9)	265(19.5)	134(23.4)
College. License	1580(17.2)	210(27.6)	1007(15.4)	282(20.7)	81(14.2)
Postgraduate for 5 or 6-Year Faculty	178(1.9)	24(3.1)	105(1.6)	38(2.8)	11(1.9)
Economic Indicators					
Employment Status					
Working	3890(42.2)	395(51.8)	2615(40.1)	619(45.5)	261(45.6)
Not Working	5322(57.8)	367(48.2)	3903(59.9)	741(54.5)	311(54.4)
Satisfaction with Income Level					
Satisfied	3755(40.8)	329(43.2)	2680(41.1)	564(41.5)	182(31.8)
Moderate	2102(22.8)	186(24.4)	1531(23.5)	313(23)	72(12.6)
Not Satisfied	3355(36.4)	247(32.4)	2307(35.4)	483(35.5)	318(55.6)
Welfare Level					
Low	3782(41.1)	320(42)	2661(40.8)	506(37.2)	295(51.6)
Moderate	2492(27.1)	171(22.4)	1801(27.6)	393(28.9)	127(22.2)
High	2938(31.9)	271(35.6)	2056(31.5)	461(33.9)	150(26.2)
Individual Indicators					
Happiness Level					
Happy	4952(53.8)	334(43.8)	3661(56.2)	759(55.8)	198(34.6)
Moderate	3103(33.7)	322(42.3)	2129(32.7)	456(33.5)	196(34.3)
Not happy	1157(12.6)	106(13.9)	728(11.2)	145(10.7)	178(31.1)
Those Who Make Happy					

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Self	313(3.4)	78(10.2)	160(2.5)	39(2.9)	36(6.3)
Children and Spouse	1658(18)	111(14.6)	1155(17.7)	273(20.1)	119(20.8)
Mother and Father	214(2.3)	55(7.2)	103(1.6)	25(1.8)	31(5.4)
Whole Family	6914(75.1)	492(64.6)	5048(77.4)	1009(74.2)	365(63.8)
Other	113(1.2)	26(3.4)	52(0.8)	14(1)	21(3.7)
Life Satisfaction					
Satisfied	2696(29.3)	215(28.2)	1890(29)	327(24)	264(46.2)
Moderate	2156(23.4)	161(21.1)	1574(24.1)	290(21.3)	131(22.9)
Not Satisfied	4360(47.3)	386(50.7)	3054(46.9)	743(54.6)	177(30.9)
Satisfaction with Health					
Satisfied	6173(67)	570(74.8)	4270(65.5)	966(71)	367(64.2)
Moderate	1817(19.7)	125(16.4)	1341(20.6)	249(18.3)	102(17.8)
Not Satisfied	1222(13.3)	67(8.8)	907(13.9)	145(10.7)	103(18)
Satisfaction with the Education Received					
Satisfied	5057(54.9)	443(58.1)	3547(54.4)	780(57.4)	287(50.2)
Moderate	1337(14.5)	122(16)	925(14.2)	202(14.9)	88(15.4)
Not Satisfied	2239(24.3)	192(25.2)	1581(24.3)	313(23)	153(26.7)
Did not Receive Education	579(6.3)	5(0.7)	465(7.1)	65(4.8)	44(7.7)
Satisfaction with Social Life					
Satisfied	4419(48)	389(51)	3128(48)	681(50.1)	221(38.6)
Moderate	2013(21.9)	141(18.5)	1497(23)	270(19.9)	105(18.4)
Not Satisfied	2780(30.2)	232(30.4)	1893(29)	409(30.1)	246(43)
Hope					
Hopeful	6483(70.4)	508(66.7)	4657(71.4)	993(73)	325(56.8)
Hopeless	2729(29.6)	254(33.3)	1861(28.6)	367(27)	247(43.2)
Past Comparison					
Improved	2644(28.7)	276(36.2)	1811(27.8)	426(31.3)	131(22.9)
Same	2615(28.4)	177(23.2)	1944(29.8)	355(26.1)	139(24.3)
Regressed	3822(41.5)	304(39.9)	265140.7)	570(41.9)	297(51.9)
No idea	131(1.4)	5(0.7)	112(1.7)	9(0.7)	5(0.9)
Future Comparison					
Will Improve	2603(28.3)	292(38.3)	1731(26.6)	434(31.9)	146(25.5)
Same	2911(31.6)	180(23.6)	2186(33.5)	399(29.3)	146(25.5)
Will Regress	2835(30.8)	236(31)	1967(30.2)	407(29.9)	225(39.3)
No idea	863(9.4)	54(7.1)	634(9.7)	120(8.8)	55(9.6)

According to the findings, 21.5% of individuals are in the 38-47 age range and 54.1% are women. Most of the individuals included in the study (72.8%) are married. While 13.7% of individuals have not completed school, 19.1% are university graduates and 57.8% are not working. While 40.8% of the individuals are satisfied and very satisfied with the monthly income of the household, the welfare level of 41.1% is below the average. It has been determined that 53.8% of individuals are happy and very happy, 75.1% are made happy by all family members, 47.3% are satisfied with their lives, 67% are satisfied and very satisfied with their health, 54.9% of them are satisfied and very satisfied with the education they have received, 48% are satisfied and very satisfied with their social life, 70.4% are hopeful for their future, 41.5% have a deteriorated financial and moral situation compared to 5 years ago, 31.6% of them stated that their situation would generally remain the same for the next 5-year period.

Table 2. Chi-square Independence Tests of Sociodemographic, Economic and Individual Factors According to Individuals' Sources of Happiness

Variables		$\chi 2$	*Degree of Freedom*
Sociodemographic Indicators			
Age			
	18-27	526.09[a]	15
	28-37		
	38-47		
	48-57		
	58-67		
	68 and more		
Gender			
	Male	113.305[a]	3
	Female		
Marital Status			
	Never Married	672.09[a]	6
	Married		
	Divorced-Widowed		
Educational Status			
	Not Finish A School	353.109[a]	15
	Primary School		
	Secondary School		
	High School		
	College, License		
	Postgraduate for 5 or 6-Year Faculty		
Economic Indicators			
Employment Status			
	Working	49.452[a]	3
	Not Working		
Satisfaction with Income Level			
	Satisfied	104.363[a]	6
	Moderate		
	Not Satisfied		
Welfare Level			
	Low	44.998[a]	6
	Moderate		
	High		
Individual Indicators			
Happiness Level			
	Happy	251.683[a]	6
	Moderate		
	Not Happy		
Those Who Make Happy			
	Self	360.907[a]	12
	Children and Spouse		
	Mother and Father		
	Whole Family		
	Other		
Life Satisfaction			
	Dissatisfied	124.532[a]	6
	Moderate		
	Satisfied		
Satisfaction with Health			

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	Satisfied	52.339[a]	6
	Moderate		
	Dissatisfied		
Satisfaction with the Education Received			
	Satisfaction	62.784[a]	9
	Moderate		
	Dissatisfied		
	Did not Receive Education		
Satisfaction with Social Life			
	Satisfied	60.456[a]	6
	Moderate		
	Dissatisfied		
Hope			
	Hopeful	63.597[a]	3
	Hopeless		
Past Comparison			
	Improved	75.121[a]	9
	Same		
	Regressed		
	No idea		
Future Comparison			
	Will Improve	94.193[a]	9
	Same		
	Will Regress		
	No idea		

[a]$p<.01$

According to the probe values of the chi-square independence tests in Table 2, it has been determined that there are statistically significant relationships between individuals' sources of happiness and sociodemographic, economic, and individual indicators.

Model Estimation

In the study, a multinomial logistic regression model was used to determine the factors that affect individuals' sources of happiness. An important assumption of multinomial logistic regression analysis is the assumption of independence of irrelevant alternatives (Vijverberg, 2011). The assumption of independence of irrelevant alternatives means that the relative probabilities of each pair of alternatives are independent of the presence or absence of all other alternatives. Violation of this assumption leads to incorrect estimates (Greene, 2002; Koppelman and Wen, 1998). Small-Hsiao test was used to test this assumption. The results of the independence test of irrelevant alternatives of the multinomial logistic regression model are given in Table 3.

Table 3. Small-Hsiao Test Results

Dependent Variable	lnL(full)	lnL(omit)	X^2	Degree of Freedom	$P> X^2$
Success	-2714.702	-2682.510	64.384	82	0.924
Health	-1244.875	-1204.693	80.364	82	0.530
Love	-2012.036	-1972.191	79.690	82	0.552
Job, Money or other	-2938.609	-2901.638	73.942	82	0.725

H_o: Rates are independent of other alternatives.

H_1: Rates are not independent of other alternatives.

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With reference to Table 2, it is concluded that the H_0 hypothesis cannot be rejected for categories such as success, health, love, work, money, and other categories that are sources of happiness. Thus, the assumption of independence of irrelevant alternatives is provided. Another assumption of the multinomial logistic regression model is that there is no multicollinearity between the independent variables. Because of this, variance inflation factors (vif) were examined. The variance inflation factor being less than 5 indicates that there is no multicollinearity (Alkan & Abar, 2020). All of the variance inflation factors are less than 5 and there are no independent variables with multicollinearity problems in the study.

The estimation results of the multinomial logistic regression model are given in Table 4. In the model, the "health" category of the dependent variable was taken as the reference category.

Table 4. Multinomial Logistic Model Estimation Results

Variables	Success		Love		Job, Money, and Other		Vif
	β	Std. Error	β	Std. Error	β	Std. Error	
Sociodemographic Indicators							
Age (reference: 18-27)							
28-37	-0.498[a]	0.129	-0.152	0.109	-0.151	0.157	2.29
38-47	-0.390[a]	0.146	-0.333[a]	0.118	-0.382[b]	0.178	2.77
48-57	-0.718[a]	0.172	-0.405[a]	0.126	-0.527[a]	0.193	2.65
58-67	-0.911[a]	0.207	-0.541[a]	0.142	-0.185	0.200	2.45
68 and more	-1.355[a]	0.275	-0.605[a]	0.159	-0.825[a]	0.246	2.66
Gender (reference: male)							
Female	-0.540[a]	0.093	0.065	0.072	-0.610[a]	0.106	1.41
Marital Status (reference: married)							
Never Married	0.981[a]	0.123	-0.068	0.108	0.668[a]	0.149	1.90
Divorced-Widowed	-0.059	0.199	-0.014	0.117	-0.001	0.169	1.25
Educational Status (reference: not finish a school)							
Primary School	0.602[b]	0.296	0.143	0.141	-0.076	0.206	4.15
Secondary School	0.628[b]	0.306	0.168	0.156	-0.256	0.230	3.16
High School	1.152[a]	0.299	0.148	0.155	-0.106	0.224	3.82
College, License	1.191[a]	0.302	0.354[b]	0.157	-0.378	0.238	3.62
Postgraduate for 5 or 6-Year Faculty	1.416[a]	0.380	0.666[a]	0.241	-0.014	0.391	1.39
Economic Indicators							
Employment Status (reference: not working)							
Working	-0.098	0.094	0.053	0.074	0.012	0.106	1.48
Satisfaction with Income Level (reference: moderate)							
Satisfied	-0.028	0.111	-0.026	0.083	0.457[a]	0.153	1.89
Not Satisfied	-0.222[c]	0.118	0.039	0.086	0.725[a]	0.146	1.92
Welfare Level (reference: low)							
Moderate	-0.165	0.112	0.098	0.080	-0.010	0.123	1.42
High	-0.078	0.113	-0.023	0.086	0.238[c]	0.134	1.80
Individual Indicators							
Happiness Level (reference: moderate)							
Happy	-0.374[a]	0.097	-0.103	0.072	-0.293[b]	0.116	1.46
Not Happy	-0.074	0.142	0.057	0.115	0.625[a]	0.129	1.44
Those Who Make Happy (reference: whole family)							
Self	1.024[a]	0.164	0.125	0.188	0.783[a]	0.207	1.08
Children and Spouse	0.489[a]	0.122	0.199[b]	0.080	0.462[a]	0.120	1.10
Mother and Father	0.677[a]	0.188	0.009	0.234	0.708[a]	0.231	1.09
Other	0.854[a]	0.267	0.213	0.308	1.257[a]	0.282	1.03
Life Satisfaction (reference: moderate)							

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Not Satisfied	-0.037	0.125	-0.075	0.095	0.170	0.127	1.86
Satisfied	0.023	0.116	0.249[a]	0.084	-0.234[c]	0.135	1.96
Satisfaction with Health (reference: moderate)							
Satisfied	-0.027	0.116	0.044	0.083	0.104	0.127	1.66
Not Satisfied	-0.053	0.170	-0.082	0.117	0.098	0.157	1.55
Satisfaction with the Education Received (reference: moderate)							
Satisfied	-0.013	0.120	-0.061	0.091	-0.102	0.136	2.32
Not Satisfied	0.154	0.135	-0.070	0.103	-0.156	0.150	2.15
Did not Receive Education	-0.761	0.539	-0.037	0.198	0.204	0.271	2.16
Satisfaction with Social Life (reference: moderate)							
Satisfied	0.196[c]	0.116	0.146[c]	0.084	0.033	0.133	1.88
Not Satisfied	0.351[a]	0.125	0.186[b]	0.091	0.182	0.133	1.88
Hope (reference: hopeless)							
Hopeful	-0.175[c]	0.103	0.078	0.079	-0.089	0.111	1.39
Past Comparison (reference: same)							
Improved	0.149	0.122	0.061	0.092	-0.051	0.147	1.93
Regressed	0.060	0.122	0.167[c]	0.088	0.056	0.131	2.09
No idea	-0.257	0.512	-0.638[c]	0.368	-0.770	0.503	1.22
Future Comparison (reference: same)							
Will Improve	0.394[a]	0.120	0.153[c]	0.089	0.261[c]	0.142	1.86
Will Regress	0.183	0.128	0.025	0.093	0.146	0.136	2.02
No İdea	0.378[b]	0.179	0.148	0.121	0.387[b]	0.180	1.39
Cons.	-2.679	0.381	-1.905	0.238	-2.710	0.354	
Log-likelihood	-7693.7222		*P*				0.000
AIC	15633.444		N				9212
BIC	16510.221						

[a]$p<.01$; [b]$p<.05$; [c]$p<.10$

The estimated multinomial logistic regression model was found to be statistically significant (P<0.000). According to the results of the multinomial logistic model given in Table 4, success for the source of happiness; individual's age (28-37, 38-47, 48-57, 58-67, 68, and more), gender, marital status (never married), educational status (primary, secondary, high school, college-bachelor, postgraduate-5 or 6 year faculty), satisfaction with income level (not satisfied), level of happiness (happy), those who make the individual happy (self, children and spouse, mother and father, other), social life satisfaction (satisfied, not satisfied), hope, future comparison (will develop, no idea) variables were found to be statistically significant.

Love for the source of happiness; individual's age (38-47, 48-57, 58-67, 68 and more), educational status (college-bachelor, postgraduate-5 or 6 year faculty), those who make the individual happy (children and spouse), life satisfaction (satisfied), social life satisfaction (satisfied, not satisfied), past comparison (regressed, no idea) future comparison (will improve) variables were found to be statistically significant.

For job money and other sources of happiness; individual's age (38-47, 48-57, 68 and more), gender, marital status (never married), satisfaction with income level (satisfied, dissatisfied), welfare level (high), happiness level (happy, not happy), happy (self, children and spouse, mother and father, other), life satisfaction (satisfied), future comparison (no idea) variables were found to be statistically significant.

As a result of the model estimation, the independent variables will be interpreted with the help of marginal effects. Table 5 shows the marginal effects and standard errors of factors affecting individuals' sources of happiness.

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Table 5. Multinomial Logistic Model Marginal Effects

Variables	Success		Health		Love		Job, Money, and Other	
	ME	Std. Error	ME	Std. Error	ME	Std. Error	ME	Std. Error
Sociodemographic Indicators								
Age (reference: 18-27)								
28-37	-0.415[a]	0.114	0.083[a]	0.029	-0.069	0.087	-0.068	0.143
38-47	-0.272[b]	0.129	0.117[a]	0.031	-0.215[b]	0.096	-0.265	0.163
48-57	-0.557[a]	0.155	0.161[a]	0.032	-0.244[b]	0.104	-0.366[b]	0.178
58-67	-0.742[a]	0.190	0.169[a]	0.034	-0.372[a]	0.119	-0.016	0.182
68 and more	-1.121[a]	0.259	0.234[a]	0.034	-0.370[a]	0.134	-0.590[b]	0.230
Gender (reference: male)								
Female	-0.467[a]	0.084	0.073[a]	0.017	0.138[b]	0.060	-0.537[a]	0.098
Marital Status (reference: married)								
Never Married	0.847[a]	0.107	-0.133[a]	0.027	-0.201[b]	0.092	0.535[a]	0.134
Divorced-Widowed	*-0.053*	*0.186*	0.006	0.026	-0.009	0.098	0.005	0.158
Educational Status (reference: not finish a school)								
Primary School	0.558[b]	0.283	-0.044	0.030	0.099	0.121	-0.120	0.189
Secondary School	0.590[b]	0.291	-0.038	0.033	0.130	0.133	-0.294	0.211
High School	1.065[a]	0.284	-0.088[a]	0.033	0.060	0.133	-0.194	0.205
College, License	1.082[a]	0.287	-0.108[a]	0.034	0.246[c]	0.133	-0.487[b]	0.220
Postgraduate for 5 or 6-Year Faculty	1.205[a]	0.348	-0.211[a]	0.068	0.455[b]	0.193	-0.225	0.360
Economic Indicators								
Employment Status (reference: not working)								
Working	-0.098	0.085	0.000	0.017	0.052	0.062	0.011	0.098
Satisfaction with Income Level (reference: moderate)								
Satisfied	-0.044	0.100	-0.015	0.019	-0.041	0.070	0.441[a]	0.145
Not Satisfied	-0.249[b]	0.106	-0.028	0.020	0.011	0.072	0.697[a]	0.137
Welfare Level (reference: low)								
Moderate	-0.166	0.102	-0.001	0.019	0.097	0.067	-0.011	0.115
High	-0.083	0.102	-0.006	0.020	-0.029	0.072	0.232[c]	0.123
Individual Indicators								
Happiness Level (reference: moderate)								
Happy	-0.311[a]	0.088	0.063[a]	0.017	-0.040	0.061	-0.231[b]	0.109
Not Happy	-0.125	0.127	-0.052[c]	0.028	0.005	0.095	0.573[a]	0.115
Those Who Make Happy (reference: whole family)								
Self	0.839[a]	0.134	-0.185[a]	0.048	-0.060	0.156	0.598[a]	0.182
Children and Spouse	0.387[a]	0.109	-0.102[a]	0.021	0.097	0.066	0.360[a]	0.111
Mother and Father	0.561[a]	0.158	-0.116[b]	0.052	-0.107	0.196	0.592[a]	0.201
Other	0.624[a]	0.220	-0.229[a]	0.084	-0.016	0.252	1.028[a]	0.230
Life Satisfaction (reference: moderate)								
Not Satisfied	-0.036	0.113	0.001	0.020	-0.074	0.081	0.171	0.116
Satisfied	-0.003	0.104	-0.026	0.020	0.222[a]	0.071	-0.260[b]	0.126
Satisfaction with Health (reference: moderate)								
Satisfied	-0.037	0.105	-0.011	0.019	0.034	0.070	0.093	0.119
Not Satisfied	-0.043	0.154	0.010	0.026	-0.072	0.100	0.108	0.145
Satisfaction with the Education Received (reference: moderate)								
Satisfied	0.004	0.108	0.017	0.021	-0.044	0.076	-0.086	0.125
Not Satisfied	0.161	0.122	0.007	0.024	-0.063	0.086	-0.149	0.138
Did not Receive Education	-0.726	0.515	0.035	0.047	-0.002	0.167	0.239	0.247

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Satisfaction with Social Life (reference: moderate)								
Satisfied	0.158	0.106	-0.038[b]	0.018	0.108	0.071	-0.004	0.124
Not Satisfied	0.285[b]	0.114	-0.067[a]	0.021	0.120	0.077	0.115	0.123
Hope (reference: hopeless)								
Hopeful	-0.165[c]	0.093	0.009	0.018	0.087	0.067	-0.080	0.103
Past Comparison (reference: same)								
Improved	0.131	0.110	-0.018	0.021	0.043	0.077	-0.069	0.136
Regressed	0.027	0.111	-0.033	0.020	0.134[c]	0.074	0.023	0.121
No idea	-0.131	0.473	0.126[b]	0.055	-0.513	0.336	-0.644	0.482
Future Comparison (reference: same)								
Will Improve	0.323[a]	0.108	-0.071[a]	0.021	0.083	0.075	0.190	0.132
Will Regress	0.157	0.116	-0.026	0.020	-0.001	0.078	0.120	0.127
No İdea	0.301[c]	0.161	-0.077[b]	0.030	0.071	0.102	0.310[c]	0.166

[a]$p<.01$; [b]$p<.05$; [c]$p<.10$

According to the multinomial logistic regression model given in Table 5, for the source of success and happiness: being 68 years old or older reduces the probability of being happy with success by 112.1% compared to the reference group. Female individuals are 46.7% less likely to be happy with success than male individuals. Individuals who have never been married are 84.7% more likely to be happy with success than married individuals. The fact that individuals are postgraduates of 5 or 6 years of faculty increases the probability of being happy with success by 120.5% compared to the reference group. Individuals who are not satisfied with their income level are 24.9% less likely to be happy with success than the reference group. Individuals who are happy with their lives as a whole are 31.1% less likely to be happy with success than the reference group. Individuals who are made happy in their lives by their mothers and fathers are 56.1% more likely to be happy with success than the reference group. Individuals who are not satisfied with their social life are 28.5% more likely to be happy with success than the reference group. Individuals who are hopeful about their own future are 16.5% less likely to be happy with success than the reference group. Individuals who think that their situation will improve in the next 5 years are 32.3% more likely to be happy with success than the reference group.

Health for the source of happiness: Individuals aged 68 and above increase the probability of being happy with health by 23.4% compared to the reference group. Female individuals are 7.3% more likely to be happy with health than male individuals. Individuals who have never been married are 13.3% less likely to be happy with their health than married individuals. Being a postgraduate-5 or 6 year faculty for individuals reduces the probability of being happy with health by 21.1% compared to the reference group. Individuals who are made happy in their lives by their mothers and fathers are 11.6% less likely to be happy with health than the reference group. Individuals who are not satisfied with their social life are 6.7% less likely to be happy with their health than the reference group. Individuals who think that their general condition will improve in the next 5 years are 7.1% less likely to be happy with their health than the reference group.

Love for the source of happiness: Individuals aged 68 and over decrease the probability of being happy with love by 37% compared to the reference group. Female individuals are 13.8% more likely to be happy with love than male individuals. Individuals who have never been married are 20.1% less likely to be happy with love than married individuals. The fact that individuals are postgraduates of 5 or 6 years of faculty increases the probability of being happy with love by 45.5% compared to the reference group. Individuals who are satisfied with their lives are 22.2% more likely to be happy with love than the reference group.

For job, money, and other sources of happiness: Individuals aged 68 and above reduce the probability of being happy with a job, money, and other sources of happiness by 59% compared to the reference group. Female individuals are 53.7% less likely to be happy with a job, money, and other sources of happiness than male individuals. Individuals who have never been married are 53.5% more likely to be happy with a job, money, and other sources of happiness than married individuals. Being a postgraduate

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of college-bachelor for the individuals decreases the probability of being happy with job, money, and other sources of happiness by 48.7% compared to the reference group. Individuals who are satisfied with their income level are 44.1% more likely to be happy with a job, money, and other sources of happiness than the reference group. Individuals with a high level of well-being are 23.2% more likely to be happy with a job, money, and other sources of happiness than the reference group. Individuals who are happy with their lives as a whole are 23.1% less likely to be happy with a job, money, and other sources of happiness than the reference group. Individuals who are made happy in their lives by their mothers and fathers are 59.2% more likely to be happy with a job, money, and other sources of happiness than the reference group. Individuals who are satisfied with their lives are 26% less likely to be happy with a job, money, and other sources of happiness than the reference group.

DISCUSSION and CONCLUSION

The happiness of individuals brings together happy societies and as a natural result, a peaceful environment occurs. In such a system, it may be possible to achieve more effective outputs with less effort for decision-makers on many vital issues from the economy to health and from education to defense. For this reason, happiness should be considered multidimensional and perhaps more emphasis should be placed on interdisciplinary studies in this regard. The happiness of individuals is affected by many factors, especially demographic and economic factors. In this study, demographic, economic, and individual factors that are effective on individuals' sources of happiness were first investigated with chi-square independence tests and then multinomial logistic regression model, which is the discrete choice model.

As a result of the study, while the happiest individuals with success are young, those who are least happy are over 68 years of age. It is possible to say that the probability of being happy because of success decreases as age increases. Parallel to this result, while the probability of being happy with money and other sources of happiness is higher in young people, it decreases after the middle-ages. In the literature, Selim (2008) determined in his study that compared to individuals in all age groups, individuals in the 18-30 age group believe more that power, job, success, money, and love bring happiness. Success is a more important source of happiness for young individuals who have a dynamic career plan compared to older individuals who have completed their career plans. In addition, this may be related to the fact that younger individuals are less satisfied with their lives compared to older individuals. Likewise, Fernández-Ballesteros, Zamarrón, and Ruiz (2001) and Peterson, Park, and Seligman (2005) determined in their studies that young individuals are less satisfied with their lives compared to the elderly. In addition to this, there are also studies in the literature that found that age affects happiness negatively (Atay, 2012; Chen & Short, 2008; Ekici & Koydemir, 2013). Young people are the most likely to be happy with love, and this probability decreases as age increases. This may be related to the fact that young individuals experience emotions such as love more intensely.

Individuals most likely to be happy with health are 68 years and older, and as the age increases, the probability of being happy with health increases. As age increases, the probability of facing health problems is higher. Thus, older individuals care more about health compared to young individuals, and they know the value of health more. Likewise, Bussière et al. (2021) found that the value given to health differs with age, and that aging increases the effect of health on subjective well-being for individuals and strengthens the relationship between them. In addition to this, when it is looked at from another point of view, health has a very important share in the happiness of individuals whether old or young without making discrimination. There are studies supporting this argument in the literature (Akın & Şentürk, 2012; Bussière et al., 2021; Carandang et al., 2020; Fernández-Ballesteros et al., 2001; Çebi-Karaaslan, Çalmaşur, & Emre-Aysin, 2021; Larson, 1978; Selim, 2008).

Compared to men, women are less likely to be happy with success, job, money, and other sources of happiness, but more likely to be happy with health and love. This may be related to the fact that women are more emotional than men. There are also studies in the literature that found that women are happier than men (Duffrin & Larsen, 2014; Ekici & Koydemir, 2013; Greenstein, 2016; Mookherjee, 1997; Lu, 2000; Wood, Rhodes, & Whelan, 1989).

While individuals who have never been married are more likely to be happy with success, job, money, and other sources of happiness than married individuals, they are less likely to be happy with health and love. This may be related to the fact that married individuals' motivation sources and priorities are their spouses or children. Thus, married individuals can care more about health and love. There are many studies in the literature stating that married individuals have a higher tendency to be happy (Akın & Şentürk, 2012; Atay, 2012; Bülbül & Giray, 2011; Ekici & Koydemir, 2013; Fernández-Ballesteros et al., 2001; Kangal, 2013; Çebi-Karaaslan et al., 2021; Lee, Seccombe, & Shehan, 1991; Myers 2000; Shinan-Altman, Levkovich, & Dror, 2020; Veenhoven & Dumludağ, 2015). On the contrary, there are studies that state that unmarried individuals have a higher tendency to be happy (Alexandre, Cordeiro, & Ramos, 2009; Kırcı-Çevik & Korkmaz, 2014; Peterson et al., 2005).

As the education level of the individual increases, the probability of being happy with success increases. In the literature, Selim (2008) found that education has an important role in being happy with a job and money. This can be explained by the fact that educated individuals' achievements are more satisfying, especially when they do work related to their field. In addition, there are also studies that found the positive effects of the level of education on happiness (Atay, 2012; Bülbül & Giray, 2011; Chen & Short, 2008; Eren & Aşıcı, 2017; Kangal, 2013; Shinan-Altman et al., 2020) and the negative effects in the literature (Akın & Şentürk, 2012; Öndes, 2019; Servet, 2017).

An individual who is satisfied with his income level is more likely to be happy with his job, money, and other sources of happiness in his life. While an individual who is dissatisfied with his income level is less likely to be happy with success in life, the probability of being happy is higher with a job, money, and other sources of happiness. This situation may be related to the fact that success brings an improvement in the income level with it and that the individual who is not satisfied with the income level attaches importance to money and therefore to his job in order to improve it. In the literature, it is clear that income is one of the most basic factors affecting the happiness of individuals. There are many studies that found that individuals with financial independence are happier (Chen & Short) and that income has a positive effect on the happiness of individuals (Akın & Şentürk, 2012; Atay, 2012; Blanchflower & Oswald, 2004; Di Tella, MacCulloch, & Oswald, 2003; Diener & Diener, 2009; Ekici & Koydemir, 2013; Fernández-Ballesteros et al., 2001; Kırcı-Çevik & Korkmaz, 2014; Veenhoven & Dumludağ, 2015).

Individuals who are satisfied with their lives are more likely to be happy with love than those who are less satisfied, and less likely to be happy with jobs, money, and other sources of happiness. In parallel with this result, individuals who are happy are less likely to be happy with success, job, money, and other sources of happiness, as well. This may be related to the achievement of spiritual satisfaction of these individuals. Likewise, an individual who is not satisfied with his social life is more likely to be happy with success. This situation may be related to the fact that individuals who are not satisfied with their social life keep their motivation areas in this direction by dedicating themselves to success in order to cover their deficiencies in that area of their lives. Social life is important for the happiness of individuals. In many studies in the literature, it has been determined that individuals who are satisfied with their social life and social relations are happier (Elliot, Cullen, & Calitz, 2018; Fernández-Ballesteros et al., 2001; Çebi-Karaaslan et al., 2021; Myers, 2000; Öndes, 2019; Sirgy & Cornwell, 2001). In addition, Chen & Short (2008) found that individuals living with their families were happier than those living alone.

The factors affecting the happiness and sources of happiness of individuals have had great importance from past to present. Being happy is among the most basic needs of individuals. Likewise, Maslow's hierarchy of needs states that the more an individual's needs are met, the happier the individual will be (as cited in Elliot et al., 2018).

In this study, important deductions were made about the factors affecting the happiness of individuals and their sources of happiness. The outputs obtained are presented in comparison with the literature, and attention is drawn to parallel and opposite situations. It has been hoped that the results of the study will shed light on the activities of policymakers and decision-makers who have an impact on individuals, or societies, experts working in this field.

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Bireylerin Mutluluk Kaynaklarını Etkileyen Faktörlerin Multinominal Lojistik Modelle Analizi

Giriş

Bireylere, yaşamlarında kendileri için önemli olduğunu düşündükleri şeyler mutluluk getirir. Bu açıdan bakıldığında, her bireyin kendine özgü değerleri ve hedefleri vardır. Yani her bireyin mutluluk için farklı nedenleri vardır. Bu durum bireylerin mutluluk kaynaklarını etkileyen faktörlerin incelenmesini değerli kılmış ve bu çalışma için bir motivasyon kaynağı olmuştur. Çalışmanın amacı, bireyler, karar vericiler ve politika yapıcılar için bireylerin dahası toplumların ruhuna dokunacak, onları mutlu kılma noktasında katkı sağlayacak bir rehber olmaktır.

Çalışmada şu sorulara yanıt aranmaktadır: Demografik faktörler bireylerin mutluluk kaynakları üzerinde etkili midir? Ekonomik faktörler bireylerin mutluluk kaynakları üzerinde etkili midir? Bireysel faktörler bireylerin mutluluk kaynakları üzerinde etkili midir?

Bireylerin hayatında vazgeçilmez bir duygu olan mutluluk, hem birey hem de o bireyin oluşturduğu toplum için oldukça önemlidir. Bireylerin mutluluğu, mutlu toplumları beraberinde getirir, böylece toplumsal barış beslenir. Bu noktada mutluluk kavramı her bilim için oldukça önemlidir ve psikolojiden ekonomiye literatürde geniş yer bulmuştur. Ayrıca literatürde mutluluk kavramı, öznel iyi oluş ve yaşam memnuniyeti kavramları ile iç içe geçmiştir. Winkelmann (2005) çalışmasında, öznel iyi oluş ile aile arasındaki ilişkiyi incelenmiştir. Çalışma sonucunda; yaş ile öznel iyi oluş arasında "u" şeklinde ilişki olduğu, işsizliğin öznel iyi oluşu olumsuz etkilediği ve sağlığın öznel iyi oluşun önemli bir belirleyici olduğu tespit edilmiştir. Selim (2008) tarafından, mutluluk kaynağı değerleri analiz edilmiştir. Çalışmanın veri seti Türkiye İstatistik Kurumu aracılığıyla temin edilmiştir ve 6663 anket verisi ile çalışılmıştır. Çalışmada multinominal lojistik regresyon modeli kullanılmıştır. Çalışma sonucunda; gelirin mutluluk getirmediği, yaş arttıkça her mutluluk kaynağından olan tatmin seviyesinin düştüğü tespit edilmiştir. Bülbül ve Giray (2011) tarafından, sosyodemografik özellikler ile mutluluk algısı arasındaki ilişki araştırılmıştır. Çalışmada Türkiye İstatistik Kurumu tarafından yapılan 2008 yılı Yaşam Memnuniyeti Anket'i kullanılmıştır ve 6382 anket verisi ile çalışılmıştır. Çalışmada doğrusal olmayan kanonik regresyon analizi kullanılmıştır. Çalışmanın sonucunda bir işi olan, ortaokul mezunu ve geliri düşük olan erkeklerin mutluluk düzeyini orta ve üst olduğu, mutluluk kaynaklarının tüm aileleri olduğu; ilkokul mezunu, orta yaşlı, emeklilerin mutluluk düzeyinin orta ve üst olduğu tespit edilmiştir. Scorsolini-Comin ve Santos (2011) tarafından, evlilik ile öznel iyi oluş arasındaki ilişki incelenmiştir. Çalışmaya 53 çift katılmıştır. Çalışmada veri setinin analizi için korelasyon ve çoklu regresyon analizleri yapılmıştır. Bireylerin yaş ortalaması 42'dir. Çalışma sonucunda öznel iyi oluşun evlilik durumu üzerinde olumlu etkisinin olduğu tespit edilmiştir. Akın ve Şentürk (2012) tarafından, bireylerin mutluluk düzeyini etkileyen değişkenler incelenmiştir. Çalışmada, 2007 yılı Avrupa Yaşam Kalitesi Anketi kullanılmıştır ve sıralı lojistik regresyon analizi uygulanmıştır. Çalışma neticesinde; mutluluk düzeyinin demografik özellikler açısından farklılaşmasına rağmen temelde benzer sonuçlar verdiği, yaşın eğitim seviyesinin artışıyla mutluluğun azaldığı, erkeklerin kadınlara kıyasla daha mutlu olduğu, evli ve sağlıklı olmanın mutluluğu olumlu etkilediği tespit edilmiştir. Çağlayan-Akay ve Timur (2017) tarafından, kadınlar ve erkeklerin mutluluğu üzerinde etkili olan faktörler araştırılmıştır. Çalışmanın veri seti Türkiye İstatistik Kurumu aracılığıyla temin edilmiştir ve çalışmada genelleştirilmiş sıralı lojistik regresyon modeli kullanılmıştır. Çalışma sonucunda; ekonomik faktörlerin mutluluk üzerinde etkili olduğu, yaşın mutlu olma olasılığını arttırdığı, iş yerinde çalışmanın ve iş yeri açmanın mutlu olma üzerinde olumlu etkisinin olduğu, umutlu olmanın kadınlar ve erkekler için mutlu olma olasılığını arttırıcı olduğu tespit edilmiştir. Shinan-Altman, Levkovich ve Dror (2020) tarafından, yaşlı bireylerin mutlulukları üzerine bir araştırma yapılmıştır. Çalışma veri seti İsrail 'de anket uygulaması aracılığıyla toplanmıştır ve verilerin analizi için hiyerarşik regresyon analizi uygulanmıştır. Çalışma sonucunda; bireylerin mutluluk düzeylerinin orta düzeyli olduğu, iyimserlik ve sosyal desteğin mutluluğu olumlu etkilediği, evlilerin bekarlara kıyasla daha mutlu olduğu, eğitim ve gelirin mutluluk

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üzerinde olumlu etkisinin olduğu, cinsiyet ve yaşın mutluluk üzerinde anlamlı bir etkisinin olmadığı tespit edilmiştir. Bussière, Sirven ve Tessier (2021) tarafından sağlık ile öznel iyi oluş arasındaki ilişki araştırılmıştır. Çalışmanın veri seti on Avrupa ülkesini içeren bir anket uygulaması aracılığıyla elde edilmiştir. Çalışma sonucunda sağlığa verilen önemin zamanla farklılaştığı, yaşlanmanın bireyler için sağlığın öznel refah üstündeki etkisini arttırdığı ve sağlık ile öznel refah arasındaki ilişkiyi güçlendirdiği tespit edilmiştir. Minarro vd. (2021) tarafından, para ile öznel iyi oluş arasındaki ilişki incelenmiştir. Çalışmanın veri seti Solomon Adaları ve Bangladeş'teki kıyı topluluklarına anket yapılarak elde edilmiştir. Çalışma sonucunda, ekonomik büyümenin düşük gelirli topluluklarda yaşam memnuniyeti arttırmayacağı, öznel iyi oluşun çok para kazanmayla elde edilemeyeceği tespit edilmiştir.

Bireylerin mutluluğu, yaşam memnuniyetleri ve öznel iyi oluşları üzerinde birçok faktör etkilidir. Demografik ve ekonomik faktörler literatürde en çarpıcı ve en yaygın olanlardır. Bireylerin yaşı, cinsiyeti, medeni durumu, eğitimi ve geliri birçok çalışmada karşımıza çıkmaktadır. Çalışmaların çoğunda, bu faktörler mutluluk düzeyi, yaşam memnuniyeti ve öznel iyi oluş üzerinde istatistiksel olarak anlamlı etkiler göstermiştir. Genel olarak yapılan araştırmalarda kadınların, evlilerin, eğitimlilerin ve geliri yüksek olanların daha mutlu olduğu tespit edilmiştir.

Yöntem

Çalışmada Türkiye İstatistik Kurumu tarafından yapılan Yaşam Memnuniyeti Anketi kullanılmış ve çalışmaya 9212 kişi dahil edilmiştir. Çalışmada veri düzenleme için Microsoft Excel, ki-kare analizleri için SPSS 20, multinominal lojistik regresyon analizi için Stata 14.1 programları kullanılmıştır. Öncelikle araştırmaya katılan bireyin mutluluk kaynağına göre frekans analizleri yapılmıştır. Bireylerin mutluluk kaynağı ile bağımsız değişkenler arasındaki ilişkiyi incelemek için ki-kare bağımsızlık testleri yapılmıştır. Daha sonra multinominal lojistik regresyon analizi kullanılarak bireylerin mutluluk kaynağına etki eden faktörler ve bu faktörlerin etki büyüklükleri belirlenmiştir.

Sonuç ve Tartışma

Çalışmadan elde edilen bulgulara göre; bireylerin %21,5'inin 38-47 yaş aralığında ve %54,1'i kadındır. Çalışmaya dahil edilen bireylerin büyük çoğunluğu (%72,8) evlidir. Bireylerin %13,7'si bir okul bitirmemişken %19,1'i üniversite mezunudur ve %57,8'i bir işte çalışmamaktadır. Bireylerin %40,8'i hanenin aylık gelirinden memnun ve çok memnun iken %41,1'inin refah düzeyi ortalamanın altındadır. Bireylerin %53,8'inin mutlu ve çok mutlu olduğu, %75,1'inin tüm aile bireyleri tarafından mutlu edildiği, %47,3'ünün yaşamından memnun olduğu, %67'sinin sağlığından memnun ve çok memnun olduğu, %54,9'unun aldığı eğitimden memnun ve çok memnun olduğu, %48'inin sosyal hayatından memnun ve çok memnun olduğu, %70,4'ünün kendi geleceğinden umutlu olduğu, %41,5'inin 5 yıl öncesi ile karşılaştırıldığında maddi manevi bugünkü durumunun gerilediği, %31,6'sının gelecek 5 yıllık dönem için genel olarak durumunun aynı kalacağını ifade ettikleri tespit edilmiştir.

Çalışma sonucunda yaş, cinsiyet, medeni durum, eğitim durumu, gelir düzeyinden memnuniyet, refah düzeyi, yaşam memnuniyeti, sosyal hayattan memnuniyet faktörlerinin bireylerin mutluluk kaynakları üzerinde etkili olduğu tespit edilmiştir. Çalışma aracılığıyla; koronavirüs salgınının psikoloji başta olmak üzere hayatımızın pek çok yönünü olumsuz etkilediğinin ve yarınlarımıza iz bırakacağının aşikâr olduğu böyle bir zamanda bireylerin mutlulukları arttırmak ve yarınların daha güzel olmasını sağlamak için karar vericilerin ve politika yapıcıların faaliyetlerine ışık tutulur.

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