Impact of the population density on quality of life

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Abstract

The aim of this study was to compare life quality of people living in İstanbul, Ankara and İzmir having higher population density to those living in cities having lower population density. 2060 people from İstanbul, Ankara and İzmir, 5892 people from other cities, totally 7952 people, were participated in the study. Turkish version of WHOQOL-BREF scale consisting 27 items, developed by World Health Organization with the participation of 15 collaboration centers was used to determine life quality of participants. WHOQOL-BREF scale includes four dimensions; physical, psychological, social relations, and environment SPSS 16.0 was used to analyzed collected data. Descriptive analyze was used to determine characteristics of participants, Independent t test was used to compare cities having different populations densities, crosstab and chi square tests were used to analyze items not included in scoring. Significant differences were found between people from cities having different population density in terms of physical and environmental field ($p<0.05$), and psychological field ($p<0.01$). No significant difference was found in terms of social field ($p>0.05$). Consequently, according to higher level of life quality scores of people living in high population density than those living low population densities in terms of physical, psychological, social and environmental field, it can be said that it is a positive reflection of life to life quality in cities having higher population density.

Keywords: Quality of Life; Population Density; Whoqol-Bref.

1. Introduction

In recent years, we often encounter the concept of "quality of life" as the field that the science and administrative environment focus on. Being in a continuous development and having versatile feature the term "quality of life" that has a dynamic quality make it difficult to be defined. (Ateş, 2009: 14). Maslow's Hierarchy of Needs, in spite of many publications and academic studies on quality of life, there is no precise definition of the concept in everyday conversation and in various science. Because the quality of life is a subjective concept and definitions will naturally be different. Different definitions; overlapped to some extent, but certainly not synonymous; refer to concepts such as satisfaction, happiness, mood, positive impact negative impact balance, cognitive assessment, health, subjective and psychological well-being. (Özpancar, 2005: 27).

According to Maslow's hierarchy of needs theory; Maslow summed up the quality of people's lives to be at a good level in five stages. 1. Physiological needs: They are basic instinctual needs such needs as eating, drinking, sleeping, breathe, sex can be given as examples in this category. 2. Safety Needs: People need to protect the life and property assets. 3. Love and

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Belonging Need: Type of needs such as love, to be loved, to belong to a group, benevolence, compassion can be given as example of this group. 4. Esteem Need: Except for love or to be loved people also want to be respected. They head towards the needs like recognition, having social status, to achieve success, appreciation. 5. Self-Actualization Need: The individual who meets the needs in subcategory needs to realize the ideals and capabilities on the final stage. The quality of life is considered to be increased directly proportional as much as the person perform these mentioned stages (Akgül, 2006: 1).

Quality of life and health related quality of life was considered extensively in the literature. These considerations are often related to the measurement of physical function and quality of life(Hsiao and others, 2014: 2). People need to have a quality life to sustain their lives happily, compatible with themselves and their environment and in life satisfaction. The World Health Organization (WHO) has set the target which members should be socially, economically and spiritually productive as well as have healthy and better quality of life (Ergen, 2011: 15). Moreover; Quality of life includes the correspondence between desired and acquired expectations about physical, psychological and social world-view (Lustyk and others, 2004: 125). According to a different definition; Quality of life is a multi dimensional concept including emotional, mental, social, physical and behavioral components (Janse anf others, 2004: 654).

After the definition of World Health Organisation (WHO) in 1948 "Health is a state of complete physical, mental and social well-being and not merely the absence of disease", to measure the state of well-being related to health, the concept of quality of life gained a gradually increasing importance in health care applications and researches (Avcı and Pala, 2004: 81). In the literature, quality of life was considered synonymous with various terms. So; Life satisfaction is explained as self-esteem, well-being, happiness, health, dignity, the importance of life, functional status and disposition. There are many components of quality of life: access to health and education, adequate nutrition and protection, a healthy environment, equality of rights, opportunities and gender, participate in daily life, dignity and security. All of these compounds are important individually; the lack of even one hurts person's "I'm living a quality life." feelings. (Zorba, 2008: 84).

Quality of life, includes many aspects of life and different values changing from person to person. Quality of life indicators like physical and material well-being, satisfaction in activities that provide participation in social life, leisure activities, psychological status, functional ability, emotional, spiritual and well-being in terms of gender, satisfaction in relationships with friends and family, future orientation vary depending on the person's character, perception of life, socio-cultural habits (Telatar, 2007: 22). Campbell, Converse and Rodgers in 1976 in their research related to quality of life aim to create an indicator that summarizes people's overall happiness and satisfaction feelings covering different satisfaction areas and have identified 11 different saturation field in order of importance. 1. Health, 2. Marriage, 3. Family Life, 4. National governments, 5. Friendship, 6. Home (residential), 7. Work, 8. Community, 9. Faith / religion, 10. Recreational and sports activities 11. Financial status. The share of participation in physical activities occurring in free time is quite a lot in the socialization of the individual, communication with more people and get rid of the stress of the day and have more social support. (Zorba, 2008: 84).

The health which has an important role in the perception of quality of life; is in a very tight relationship with our environment that we influence with our way of life and behaviors. That is why, the changes occurred in our behavior and in our lives over time led to the creation of many new dimensions in health. Rapid growth of urbanization in this era we live in, people's less movement of their body, socio-economic and cultural problems brought by irregular urbanization and the factors that cause psychological stress (noise, heavy traffic, etc.) has changed the form of people's health problems (Yeniokatan, 2006: 31).

As it can be understood from above, returns of urbanization and stable lifestyle hold an important place among the factors affecting the quality of life positively or negatively. Because of its innate characteristics, the human body needs to move constantly. However, the characteristics of our era have taken us away from our present needs.

2. Method

This study has been carried out to compare life quality of people living in İstanbul, Ankara and İzmir having higher population density to those living in cities having lower population density in proportion to the mentioned cities. In accordance with this purpose online survey through Google drive were created to reach more individuals. The questionnaire created online was advertised through social media to reach people and they were provided to fill via their email addresses in order not to answer more than once. Data were collected for the study for 12 months between January and December 2014. Information about demographic features like age, educational status, marital status of the individuals participating in the study was collected. A total of 7952 people including 2060 people from Istanbul, Ankara and Izmir, 5892 people from other cities were reached in the research.

In order to determine the participants' quality of life, Turkish version of the WHOQOL-BREF scale with 27 items, which is prepared by the World Health Organization with the participation of 15 co-operation center, was applied. "Cronbach alpha" value calculated for the internal consistency was determined as 0.83 in the physical domain, 0.66 in the psychological domain, 0.53 in the social domain, 0.73 in the environmental domain and 0.73 in the national environmental domain. Pearson coefficients calculated for each question in order to calculate the test-retest reliability ranged from 0.57, and 0.81 (Eser ve diğerleri, 1999: 25).

WHOQOL-BREF scale consists of four sub-areas, including physical space, psychological domain, social relationship, environment. The Scale includes closed-ended questions appropriate to Likert Scale.

The scale of which the field studies done in different cultures can be applied to adult age and considered to be a reliable and valid measurement tool of quality of life (Fidaner ve diğerleri, 1999: 5). WHOQOL-BREF can be used for different purposes in society. This scale prepared by the participation of experts the 18 countries within The World Health Organization, is used in treatment services to assist the doctor in the selection of a treatment method, and to compare the treatment methods with each other and the effects of these methods over time. In addition, it is widely used in the development of health services, in health-related researches and in the development of new health policies (Fidaner ve diğerleri, 1999: 6). The avarage of the scores from each question is used to calculate the domain scores. Then the average scores multiplied by 4 is made to be compared with WHOQOL-100 scale. First in the calculation of scores it should be checked that all the answers to the questions are between 1 and 5, and if there is a different value it must be changed as empty. Then, as the responses of the 3., 4. and 6. questions indicate negative their points is reversed (1 = 5, 2 = 4, 3 = 3, 4 = 2, 5 = 1). After these operations; For the calculation of the physical domain scores, the arithmetic average of the scores of questions 3, 4, 10, 15, 16, 17 and 18 are multiplied by four (at least six question must be fully-answered). For the calculation of the psychological domain scores, the arithmetic average of the scores of questions 5, 6, 7, 11, 19, and 26 are multiplied by four (at least five questions must be fully-answered). Social Domain score; calculated by multiplying the arithmetic average of the scores of questions 20,21 and 22 by 4 (at least two question must be fully-answered). The score of Social Domain as the forth domain; calculated by multiplying the arithmetic average of the scores of questions 8, 9, 12, 13, 14, 23, 24 and 25 by 4 (at least six question must be fully-answered) (Telatar, 2007: 32).

Data Analysis: SPSS 16 software package was used for statistical analysis of the data obtained. In Research, to determine the individual characteristics, frequency analysis; for comparison of cities according to population density, Independent t-test; in the analysis of the questions not included in the scoring, chi-square and Crosstab analysis were used. The level of significance was taken as $p < 0.05$.

3. Findings

Table 1: Gender Distribution

	N	%
Female	3670	46,2
Male	4282	53,8
Total	7952	100,0

According to the table it has been identified that 46,2 % (3670) female and 53,8% (4282) male of the individuals participated in the research.

Table 2: Distributions of Participants by Occupation

	N	%
Public	1807	22,7
Private	2488	31,3
Retired	52	,7
Student	3039	38,2
Unemployed	566	7,1
Total	7952	100,0

According to the table it has been identified that 22,7% public sector, 31.3% private sector, 0.7% retired, 38,2% student and 7,1% unemployed of the individuals participated in the research.

Table 3: Educational Status of Participants

	N	%
Primary	214	2,7
Secondary	1015	12,8
University	5520	69,4
Post Graduate	835	10,5
Doctorate	368	4,6
Total	7952	100,0

It has been identified that 2,7% primary, 12,8%secondary, 69,4% university, 10,5 post graduate and 4,6 % doctorate graduate of the individuals participated in the research.

Table 4: Distributions of Participants by Age

	N	%
Age 18 and under	324	4,1
Age 19-25	3482	43,8
Age 26-32	2688	33,8
Age 33-40	898	11,3
Age 41-48	367	4,6
Age 49-55	188	2,4
Age 56-64	5	0,1
Total	7952	100,0

It has been identified that 4,1% age 18 and under, 43,8% between the ages 19-25, 33,8% between the ages 26-32, 11,3% between the ages 33-40, 4,6% between the ages 41-48, 2,4% between the ages 49-55, 0,1% between the ages 56-64 of the individuals participated in the research.

Table 5: Length, weight and body mass index values of the participants

	Parameters	N	Arithmetic Average	Standard Deviation
Length	İstanbul, Ankara, İzmir	2060	1,72	,09
	Other cities	5892	1,72	,08
Weight	İstanbul, Ankara, İzmir	2060	70,43	16,28
	Other cities	5892	69,76	15,04
Body mass index	İstanbul, Ankara, İzmir	2060	23,38	4,29
	Other cities	5892	23,37	3,88

According to the t test; out of 2060 individuals surveyed in İstanbul, Ankara and İzmir, it has been determined $1,72\pm0,09$ as length, $70,43\pm16,28$ as weight and $23,38\pm4,29$ as body mass index. From other cities; out of 5892 individuals $1,72\pm0,08$ as length, $69,76\pm15,04$ as weight and $23,37\pm3,88$ as body mass index have been determined.

Table 6: Comparison of other cities with the cities that have more Population Density

Parameters		N	Arithmetic Average	Standard Deviation	t	p
Physical Domain	İstanbul, Ankara, İzmir	2060	15,57	2,36	2,54	<0,05
	Other cities	5892	15,41	2,41		
Psychological Domain	İstanbul, Ankara, İzmir	2060	13,72	1,38	2,68	<0,01
	Other cities	5892	13,63	1,38		
Social Domain	İstanbul, Ankara, İzmir	2060	14,26	3,17	1,07	>0,05
	Other cities	5892	14,17	3,37		
Environmental Domain	İstanbul, Ankara, İzmir	2060	13,75	2,20	2,38	<0,05
	Other cities	5891	13,61	2,39		

While Physical Domain score average of the individuals participating in Istanbul, Ankara and Izmir is determined as $15,57\pm2,36$, psychological domain score average as $13,72\pm1,38$, social domain score average as $14,26\pm3,17$ and environmental domain score average as $13,75\pm2,20$, the individuals' physical domain score average determined as $15,41\pm2,41$, psychological domain score average as $13,63\pm1,38$, social domain score average as $14,17\pm3,37$ and environmental domain score average as $13,61\pm2,39$ participated from other cities. While there is a significant difference between physical and environmental domain score averages of the subjects at a level of $p<0,05$, there is a significant difference at a level of $p<0,01$ in psychological domain score. But it is not found a significant difference between social domain score average($p>0,05$).

Table 7: Independent t-test analysis of the questions that form the physical domain scores

Physical Domain		N	Arithmetic Average	Standard Deviation	t	p
3.How much do you think your pains influence what you need to do?	İstanbul, Ankara, İzmir	2060	3,48	1,00	-,05	>0,05
	Other cities	5892	3,48	1,09		
4.How much do you need a medical treatment to conduct your daily work?	İstanbul, Ankara, İzmir	2060	4,43	0,89	,22	>0,05
	Other cities	5892	4,42	0,86		
10. Do you have enough power or strength to maintain the daily life?	İstanbul, Ankara, İzmir	2060	4,03	0,89	-2,53	<0,05
	Other cities	5892	4,08	0,89		
15. How is your Physical mobility (ability to move around, to go somewhere) skills?	İstanbul, Ankara, İzmir	2060	4,21	0,91	7,62	<0,05
	Other cities	5892	4,03	0,93		
16. How satisfied are you with your sleep?	İstanbul, Ankara, İzmir	2060	3,27	1,16	1,79	>0,05
	Other cities	5892	3,21	1,27		
17. How satisfied are you with your ability to conduct your daily works?	İstanbul, Ankara, İzmir	2060	3,78	0,86	1,85	>0,05
	Other cities	5892	3,73	0,94		
18. How satisfied are you with your performance capacity?	İstanbul, Ankara, İzmir	2060	4,03	0,76	1,90	>0,05
	Other cities	5892	3,99	0,90		

When the responses of the individuals living in the provinces of İstanbul, Ankara, İzmir and other cities have been analyzed it has been identified that; individuals living in İstanbul, Ankara, İzmir have replied as 4,03±0,89 to the question "Do you have enough power or strength to maintain the daily life?", the individuals living in other cities replied as 4,08±0,89, to the question ". How is your Physical mobility (ability to move around, to go somewhere) skills?" individuals living in İstanbul, Ankara, İzmir have replied as 4,21±0,91, individuals living in other cities replied as 4,03±0,93. According to the questions that compose the physical domain, when the responses of the individuals living in İstanbul, Ankara, İzmir and other cities considered no significant difference is encountered in the questions; "How much do you think your pains influence what you need to do?", "How much do you need a medical treatment to conduct your daily work?", "How satisfied are you with your sleep?", "How satisfied are you with your performance capacity?", "How satisfied are you with your ability to conduct your daily works?". A significant difference with a level of p<0,05 is encountered in the questions "Do you have enough power or strength to maintain the daily life?" and "How is your Physical mobility (ability to move around, to go somewhere) skills?"

Table 8: Independent t-test analysis of the questions that form the Psychological domain

Psychological domain		N	Arithmetic Average	Standard Deviation	t	p
5. How much do you enjoy living?	İstanbul, Ankara, İzmir	2060	3,84	0,88	4,61	<0,05
	Other cities	5892	3,74	0,87		
6. To what extent do you think your life meaningful?	İstanbul, Ankara, İzmir	2060	2,21	0,87	-4,60	<0,05
	Other cities	5892	2,31	0,88		
7. How effective are you in focusing your attention?	İstanbul, Ankara, İzmir	2060	3,37	0,91	1,49	>0,05
	Other cities	5892	3,34	0,91		
11. Do you accept your physical appearance?	İstanbul, Ankara, İzmir	2060	4,16	0,96	,76	>0,05
	Other cities	5892	4,14	0,98		
19. How satisfied are you with yourself?	İstanbul, Ankara, İzmir	2060	4,02	0,98	3,44	<0,05
	Other cities	5892	3,93	1,05		
26. How often do you have a negative feeling like sadness, hopelessness, anxiety, depression?	İstanbul, Ankara, İzmir	2060	2,96	0,92	-,094	>0,05
	Other cities	5892	2,96	0,84		

When the responses for the Psychological domain of the individuals living in the provinces of İstanbul, Ankara, İzmir and other cities have been analyzed for the Psychological domain it has been identified that people living in İstanbul, Ankara, İzmir replied as 3,84±0,88, people living in other cities replied as 3,74±0,87 to the question "How much do you enjoy living?", to the question "To what extent do you think your life meaningful?" people living in İstanbul, Ankara, İzmir replied as 2,21±0,87, people living in other cities replied as 2,31±0,88, to the question "How satisfied are you with yourself?" ?" people living in İstanbul, Ankara, İzmir replied as 4,02±0,98, people living in other cities replied as 3,93±1,05. According to the questions that forms the Psychological domain, when the responses of the individuals living in the provinces of İstanbul, Ankara, İzmir and other cities have been analyzed a significant difference at p<0,05 level has been found between the replies to the questions "How much do you enjoy living?", "To what extent do you think your life meaningful?" and "How satisfied are you with yourself?". No significant difference has been found at the questions: "How effective are you in focusing your attention?", "Do you accept your physical appearance?" and "How often do you have a negative feeling like sadness, hopelessness, anxiety, depression?"

Table 9: Independent t-test analysis of the questions that form the Social domain

Social domain		N	Arithmetic Average	Standard Deviation	t	p
20. How satisfied are you with your relationships with people except from your family?	İstanbul, Ankara, İzmir	2060	3,85	1,03	4,44	<0,05
	Other cities	5892	3,74	0,97		
21. How satisfied are you with your sex life?	İstanbul, Ankara, İzmir	2060	3,47	1,19	2,31	<0,05
	Other cities	5892	3,39	1,32		
22. How satisfied are you with the support of your friends?	İstanbul, Ankara, İzmir	2060	3,36	0,97	-4,51	<0,05
	Other cities	5892	3,49	1,09		

When the responses of the individuals living in the provinces of İstanbul, Ankara, İzmir and other cities have been analyzed for the Social domain it has been identified that people living in İstanbul, Ankara, İzmir replied as 3,85±1,03, people living in other cities replied as 3,74±0,97 to the question "How satisfied are you with your relationships with people except from your family?", to the question "How satisfied are you with your sex life?" people living in İstanbul, Ankara, İzmir replied as 3,47±1,19, people living in other cities replied as 3,39±1,32, to the question "How satisfied are you with the support of your friends?" people living in İstanbul, Ankara, İzmir replied as 3,36±0,97, people living in other cities replied as 3,49±1,09. According to the questions that forms the Social domain, when the responses of the individuals living in the provinces of İstanbul, Ankara, İzmir and other cities have been analyzed a significant difference at p<0,05 level has been found between the replies to the questions "How satisfied are you with your relationships with people except from your family?", "How satisfied are you with your sex life?" and "How satisfied are you with the support of your friends?".

Table 10: Independent t-test analysis of the questions that form the Environmental domain

Environmental domain		N	Arithmetic Average	Standard Deviation	t	p
8. How confident do you feel in your daily life?	İstanbul, Ankara, İzmir	2060	3,47	0,89	-1,97	>0,05
	Other cities	5892	3,51	0,90		
9. To what extent is your physical environment healthy?	İstanbul, Ankara, İzmir	2060	3,35	0,73	6,60	<0,05
	Other cities	5892	3,22	0,81		
12. Do you have enough money to meet your needs?	İstanbul, Ankara, İzmir	2060	3,30	1,01	6,83	<0,05
	Other cities	5892	3,14	0,88		
13. To what extent can you get the necessary information and news in your daily life?	İstanbul, Ankara, İzmir	2060	4,02	0,79	9,46	<0,05
	Other cities	5892	3,81	0,90		
14. To what extent do you have opportunity for leisure time activities?	İstanbul, Ankara, İzmir	2060	3,22	0,88	2,78	<0,05
	Other cities	5892	3,15	0,96		
23. How satisfied are you with the conditions of the house you live in?	İstanbul, Ankara, İzmir	2060	3,54	1,17	-5,27	<0,05
	Other cities	5892	3,69	1,09		
24. How satisfied are you with your conditions of access to health care?	İstanbul, Ankara, İzmir	2060	3,34	1,01	-1,34	>0,05
	Other cities	5891	3,38	1,10		
25.How satisfied are you with your transportation facilities?	İstanbul, Ankara, İzmir	2060	3,23	1,25	-2,04	<0,05
	Other cities	5892	3,29	1,22		

When the responses of the individuals living in the provinces of İstanbul, Ankara, İzmir and other cities have been analyzed for the Environmental domain it has been identified that people living in İstanbul, Ankara, İzmir replied as 3,35±0,73, people living in other cities replied as 3,22±081 to the question "To what extent is your physical environment healthy?", to the question "Do you have enough money to meet your needs?" people living in İstanbul, Ankara, İzmir replied as 3,30±1,01, people living in other cities replied as 3,14±0,88, to the question "To what extent can you get the necessary information and news in your daily life?" people living in İstanbul, Ankara, İzmir replied as 4,02±0,79, people living in other cities replied as 3,81±0,90, to the question "To what extent do you have opportunity for leisure time activities?" people living in İstanbul, Ankara, İzmir replied as 3,22±0,88, people living in other cities replied as 3,15±0,96, to the question "How satisfied are you with the conditions of the house you live in?" people living in İstanbul, Ankara, İzmir replied as 3,54±1,17, people living in other cities replied as 3,69±1,09, to the question "How satisfied are you with your transportation facilities?" people living in İstanbul, Ankara, İzmir replied as 3,23±1,25, people living in other cities replied as 3,29±1,22.

According to the questions that forms the Environment domain, when the responses of the individuals living in the provinces of İstanbul, Ankara, İzmir and other cities have been analyzed a significant difference at p<0,05 level has been found between the replies to the questions "To what extent is your physical environment healthy?", "Do you have enough money to meet your needs?", "To what extent can you get the necessary information and news in your daily life?", "To what extent do you have opportunity for leisure time activities", "How satisfied are you with the conditions of the house you live in?" and "How satisfied are you with your transportation facilities?". No significant difference has been found at the questions: "How confident do you feel in your daily life?" and "How satisfied are you with your conditions of access to health care?".

Table 11: Quality of Life Perception

		Very bad	Slightly bad	Not good Not bad	Quite good	Very good	Total
İstanbul, Ankara, İzmir	N	90	142	1175	612	41	2060
	%	%1,1	%1,8	%14,8	%7,7	%0,5	%25,9
Other Cities	N	180	547	3489	1522	154	5892
	%	%2,3	%6,9	%43,9	%19,1	%1,9	%74,1
Total	N	270	689	4664	2134	195	7952
	%	%3,4	%8,7	%58,7	%26,8	%2,5	%100,0

$X^2=30,03$ $p<0,001$

When the life quality of individuals is considered according to the place they live, 1,1% is very bad of the quality of life perception of people live in İstanbul, Ankara and İzmir, 1,8% is slightly bad, 14,8% is not good or not bad, 7,7% is quite good and 0,5% is very bad. The life quality perception of individuals live in other cities; their 2,3% replied as very bad, 6,9% as slightly bad, 43,9% as not good not bad, 19,1% quite god and 1,9% very good. According to the chi-square analysis carried out, a significant difference at a level of $p<0,001$ is found between the responses of individuals.

Table 12: Degree to be satisfied with the health

		Not satisfied	Very little satisfied	Neutral	Quite satisfied	Very satisfied	Total
İstanbul, Ankara, İzmir	N	50	242	418	952	398	2060
	%	%0,6	%3,0	%5,3	%12,0	%5,0	%25,9
Other cities	N	126	506	1415	2791	1054	5892
	%	%1,6	%6,4	%17,8	%35,1	%13,3	%74,1
Total	N	176	748	1833	3743	1452	7952
	%	%2,2	%9,4	%23,1	%47,1	%18,3	%100,0

$X^2=28,10$ $p<0,001$

According to the crosstab analysis carried out, when the individuals' degree of being satisfied with health according to where they live is considered; the degree of being satisfied with health for the individuals live in İstanbul, Ankara and İzmir is identified as; 0,6% of them not satisfied, 3% very little satisfied, 5,3% neither satisfied nor dissatisfied, 12% quite satisfied and 5% very satisfied. When the individuals' degree of being satisfied with health is considered, it is identified as 1,6% of them not satisfied, 6,4% very little satisfied, 17,8% neither satisfied nor dissatisfied, 35,1% quite satisfied and13,3% very satisfied. According to the chi-square analysis carried out, a significant difference at a level of $p<0,001$ is found between the responses of individuals.

Table 13: The degree of difficulty experienced with the people he/she feels close in his/her life

		Never	A little	Moderate	Quite	Very much	Total
İstanbul, Ankara, İzmir	N	197	688	864	287	24	2060
	%	%2,5	%8,7	%10,9	%3,6	%0,3	%25,9
Other cities	N	949	1692	2552	574	125	5892
	%	%11,9	%21,3	%32,1	%7,2	%1,6	%74,1
Total	N	1146	2380	3416	861	149	7952
	%	%14,4	%29,9	%43,0	%10,8	%1,9	%100,0

$X^2=89,39$ $p<0,001$

According to the crosstab analysis carried out, when the individuals' degree of difficulty experienced with the people he/she feels close in his/her life according to where they live is

considered; the responses of the individuals live in İstanbul, Ankara and İzmir are 2,5% of them is never, 8,7% is very little, 10,9% medium, 3,6% quite and 0,3% of them very much. The responses that the individuals live in other cities are 11,9% of them is never, 21,3% is very little, 32,1% medium, 7,2% quite and 1,6% of them very much. According to the chi-square analysis carried out, a significant difference at a level of $p<0,001$ is found between the responses of individuals.

4. Discussion

Quality of life is a person's physical and mental well-being status. Many factors contribute to the quality of life. Among these, being "good" of life, one's happiness and doing things without being dependent on others and enjoying life can be listed. This study has been carried out to compare life quality of people living in İstanbul, Ankara and İzmir having higher population density to those living in cities having lower population density in proportion to the mentioned cities.

46.2% (3670) of individuals who have participated in the survey were female and 53.8% (4282) were male (Table 1). 22.7% in the public sector, 31.3% work in the private sector, and also 38.2% students (Table 2). 2.7% of primary school, 12,8% in high school, 69.4% university, 10.5% have a master's degree and 4.6% doctorate level (Table 3). It is identified that 4.1% of the participants participated in the study aged 18 and under, 43.8% between 19-25 years, 33.8% between 26-32 years of age, 11.3% between 33-40 years old, 4.6% between the ages of 41-48, , 2.4% aged between 49-55 and 0.1% between 56-64 years of age (Table 4). 2060 individuals participated in the survey from İstanbul, Ankara and İzmir have an average of 1.72 ± 0.09 m height, average of 70.43 ± 16.28 kg of body weight and body mass index value of 23.38 ± 4.29 kg/m2. Other individuals participating in the 5892's the average height of 1.72 ± 0.08 m from the provinces, an average of 69.76 ± 15.04 kg and body mass index value of 23.37 ± 3.88 kg / m2 of body weight is defined as (Table 5). 5892 individuals participating from the other provinces have the average height of 1.72 ± 0.08 m, an average of 69.76 ± 15.04 kg of body weight and value of 23.37 ± 3.88 kg / m2 body mass index are defined. (Table 5).

In our study, when the quality of life scores of individuals living in Istanbul, Ankara and Izmir are compared with the individuals living in other provinces; in Physical domain, psychological domain, social domain and environmental domain average scores, it was determined that the average scores have a better level of individuals living in İstanbul Ankara and Izmir. While there is a significant level of $p<0.05$ between average scores of physical and environmental domain of the subjects participating in the research and at a level of $p<0.01$ in the psychological domain scores, not a significant difference found between the scores of social domain (Table 6). according to the study which was done in Istanbul Büyükçekmece by Ersin Ören (2012); 53.4% of the individuals surveyed indicated that they are very happy to live in big cities, while 2,4% of them stated that they are not satisfied to live in big cities. about 33% of those living in metropolitan cities replied that "I live in a highly secure place" and 60% replied as "The place I live is secure". Transportation is considered as one of the main components of quality of life. 37.4% of those surveyed, namely 80 people, were satisfied from the public transport services but a high rate, as 1/3 of dissatisfaction is reported. According to Quality of Urban Life Index, educational services include the criterias; the school types in service, school choice, transportation to school, school trip safety, etc. 90 people that is about 41.7% of those surveyed with the satisfaction of educational services, there is an educational service that 40 people are not satisfied with the rate of about % 18.6. 94 individuals corresponding to 43.8% of those surveyed were satisfied from the health service in the city while the dissatisfaction of a substantial amount which is 30% is noteworthy. From those surveyed, 73 people say (33.8%) certainly, 85 (39.4%) people say that the cultural services of the city is enough; 44 (20.7%) people mentioned about inadequacy of these services. To sum up, Ersin Ören; in the indicators of Quality of life at the individual level, the quality of the settlement also brings together the sense of satisfaction from the place he/she live and social relations(Ersin Ören, 2012: 96).

First European Quality of Life Survey conducted by Republic of Turkey, Ministry of Internal Affairs, Centre for Research and Studies (AREM) in Turkey in July 2007: The aim of the

study called Quality of life in Turkey; is to determine the factors that affect the daily lives of European citizens such as living conditions (housing and local environment, family and household structure, balance between work and family life, the providing social and public services and promoting employment integration etc.), working conditions (employment, working order, the time-related issues spent in the workplace, flexibility, monitoring of changes in working conditions, etc.) of country citizens(AREM, 2007: 2).

In our study, when the quality of life perception of Turkish public is considered, 58,7% of individuals surveyed are neither pleased nor dissatisfied and 26,8% of them replied as quite good(Table 11). According to the survey results of AREM (2007), the majority of Turkish society said they were satisfied with their life in general. Area where they are most satisfied with is their personal health. Especially the majority of those who answered questions asked about health condition gave an answer like "my health is very good". Their least satisfied areas are the areas that the state is directly responsible for such as health services, education and standard of living. There is a rapid but irregular population growth in Turkey. Population growth is faster in places especially like Istanbul where the centre of industrialization. the The main reason of migration of Turkish to foreign countries at different times from Turkey, the good living conditions and standard of living is at higher levels than in Turkey. It is highlighted that increased population ratio in metropolitans as a result of migration formed the crowds in the city, this causes congestion problems (AREM, 2007: 4). In our study, participants were asked "satisfaction degree with your health" as a majority of 65% answered the question as "quite a few" and "I'm very pleased" (Table 11). In the study that AREM (2007) made when the health holding an important place in the lives of individual is considered as a whole, the satisfaction that emerges gives a comprehensive life satisfaction of the society. In this context, when it is made a rating between 1 (not satisfied) to 10 (very satisfied), it is remarkable that a group of 15% "not satisfied (1 point)", a group of 23% moderate satisfaction meaning "not too bad" (five points).

5. Results

The concept of quality of life, to evaluate the subjective data in an objective way. Effects on the individual's life of physical, mental and social conditions that can be effective in life. the quality of life concept holds the cultural values and position of the individual within itself (Güney, 2014: 109).

Physical Domain: In the question "Do you have enough power or strength to maintain the daily life?" the Physical Domain score of the people living in other cities is higher compared to the individuals living in İstanbul, Ankara and İzmir. For the question "How is your ability of Physical mobility (ability to move around, to go somewhere)", the Physical Domain score of people living in İstanbul, Ankara and İzmir is higher. The score average of the answers given to the question; "How much do you think your pains influence? What you need to do? How much do you need a medical treatment to conduct your daily work? How satisfied are you with your sleep? How satisfied are you with your ability to conduct your daily works? How satisfied are you with your performance capacity?" is very close to each other and there is not a significant difference.

Psychological Domain: For the questions "How much do you enjoy living? To what extent do you think your life meaningful?" the Psychological Domain score of the individuals living in other cities is higher. For the question "How satisfied are you with yourself?" Psychological Domain score of individuals living in İstanbul, Ankara and İzmir is higher. In the questions "How effective are you in focusing your attention?"" Do you accept your physical appearance?""How often do you have a negative feeling like sadness, hopelessness, anxiety, depression?" the score averages of both are very close to each other.

Social Domain: Social Domain score of individuals living in İstanbul, Ankara and İzmir is higher in the question **"**How satisfied are you with your relationships with people except from your family?" This is because there are more social areas to spend time in metropolitans and because people living in metropolitans spend more time in social places. In the question "How satisfied are

you with the support of your friends?" the social domain score of the individuals living other cities is higher. The reason of the difference occurred according to this result is the transportation difficulty, workload and exhaustion felt at the end of the day.

Environmental Domain: Environmental Domain score of individuals living in İstanbul, Ankara and İzmir is higher in the questions "To what extent is your physical environment healthy? Do you have enough money to meet your needs? What extent can you get the necessary information and news in your daily life? To what extent do you have opportunity for leisure time activities?" It is thought that these results are due to the news centers are in metropolitans and there are more things for the leisure activities. The Environmental Domain score of individuals living in other cities is higher in the questions "How satisfied are you with the conditions of the house you live in?" and "How satisfied are you with your transportation facilities?" It is because the rent of the real estates in metropolitans and to purchase is difficult. Although there is more than one choice the transportation is difficult and the distance is far. For the questions "How confident do you feel in your daily life? and How satisfied are you with your conditions of access to health care?" the scores of the answers of both group are close to each other.

As a result, with reference to the physical domain, psychological domain, social domain and environmental domain average score of the individuals living in the cities with population density is at a better level than the individuals living in other cities, we can say that living in the city with population density has a positive reflection to the quality of life.

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