

Comparative investigation of quality of life of the rural and urban elderly in the city of Zanjan

REZA MOHAMMADI

M. A. in Social Welfare Programming
Allameh Tabataba'i University, Tehran, Iran

TAGHI RAHIMI

M. A. in Social Welfare Programming
Allameh Tabataba'i University, Tehran, Iran

RAZIEH GILANI

M.A. in Translation Studies, Central Tehran Branch
Islamic Azad University, Tehran, Iran

Abstract:

Todays the quality of life is one of the major concerns of policy-makers and social researchers. With respect to aging of the population, planners should try to upgrade the life quality of the elderly. This comparative study aims to examine the life quality of urban and rural elderly in Zanjan Township. The main purpose of the study is to investigate and recognize the differences between the life quality of the elderly in rural and urban areas. The statistical population of this survey was all the citizens of Zanjan. By using the Cochran formula, the sample size was estimated as 380 people who from among them, 191 people for urban society and 189 people for rural society were chosen. Residential place (urban or rural) was examined as the main variable of this research and sex, level of education and salary were considered as the most important grounded variable. After collecting data, they were analysed using SPSS software and according to the survey questions, T-test (independent groups) has been used. The results revealed that different dimensions of quality of life in urban area of Zanjan is much better than its rural area. The only dimension in which the rural elderly had better condition than the urban was health of social relationships. Urban women and men experienced higher levels of physical, environmental, spiritual and mental

conditions than the rural ones. Furthermore, women and men's health of social relationships was much better than rural ones.

Key words: Quality of life, Elderly, WHOQL questionnaire, Urban and Rural, citizens of Zanjan.

INTRODUCTION

Life quality as an index for improvement of a society consists of the most important factors which determines people's personal welfare conditions. Many people assessed it with income index as a material factor and some people believe that it includes the amount of people's ability to do their jobs, happiness, wellbeing and joy. The concept of life quality in the elders' lives can be investigated from different points of view. Unlike what is commonly believed, the elderly period is not associated with proposed problems, today most of the elders are in completely healthy conditions and besides they have a very influential role in the family and have a highlighted status in the society. Elderly period is not viewed as a state of dependency and resting time and these people can have their individual and social role for many years in the society. Providing physical and mental needs of the elders can reinforce their quality of life significantly and weakens their loneliness seriously.

In Iranian- Islamic culture, "elderly" is not only an unpleasant word but also it is associated with "wisdom, intellect, sagacity and perfection", hence it is considered as an effective and invaluable stage in life. The elderly period is a period of life which is naturally accompanied by decrease of mental and physical abilities. Once the abilities are decreased along with today's machinery lives, they increase elderly problems and impose heavy economic, social and mental expenses on society's account. On the other hand, the elderly population is about to increase by improving hygienic conditions. The researches reveal that about 13% of world

population were above 65 years old in 2000, 1.8% of them were older than 84 years. It is predicted this proportion will reach to 20% of the whole population in 2040 (Seyyed Mirzaei, 2007: 12; Kun, 2011: 155). According to the census carried out in 2011, there were 4296769 people older than 65 which forms 5.72% of the whole population of the country (Dehestani, 2008: 12; Saraei, 2011: 181; Iran statistics center, 2011).

Today, the concept of life quality has a wide extent which has been intertwined in a complicated way with physical health, psychological state, social relations of people and the conditions of environment where they live in. Evaluating life quality indexes of the elders is influenced by family conditions, physical, mental, spiritual and ... conditions which obliges the families and policy makers to understand and perceive them as they fulfill many of the main needs.

Some researchers believe that life quality take historical root in 320 B.C. (Mokhtari&Nazari, 2010: 15), the origin of life quality emergence goes back to Aristotle era. Aristotle in his book "Nicomachean ethics" defines the concept of life quality as having good life, being happy and doing good jobs. He declared that happiness is a blessing from God which is derived from invaluable activities of human beings and leads them toward a good life (Farid Kian, 2010: 14).

The first important work of life quality in sociology belong to Ogburn (1946) who has written about rural life in United States. Life quality has been investigated in Social Research Institute of Michigan University and Chicago assessment center since 1960s (Noghani, 2008: 2).

Eyessenck (1998: 420) believes that the concept of life quality reveals people's point of view regarding what it should be and what it already is. Calman (1984: 124-128) defines life quality as an extent of hopes and wishes derived from people's experiences. Also, Veenhoven, 2005:61).

The elders experience different qualities of life in different environments and definition of life quality shows their

life style. Hence, the elders in rural areas face less social support due to emigration of the youth, on the other hand the elders working conditions bears too much physical pressure and a large percent of them do not have any insurance in their retirement and consequently experience different qualities of life compared with elders of urban areas, besides the citizens of urban areas have various advantages in their lives. However, individual perception of life is one of the most concepts of life quality. On the whole living in rural areas makes the elders deprived from many well-being and hygienic facilities and in rural areas different dimensions such as social capitals, pollution and respect havelower grade which affect people's life quality. Anyhow, the services such as sport complex, schools and universities with high level of education quality, hospitals, healthy environments and security, appropriate housing, electricity, water, telephone, public transportation along with cultural, political, ... issues are common items which can improve life quality in both urban and rural areas, and all these issues can be investigated in economic, demographic, social and environmental indexes. With respect to the ways reinforcing the elderly period, it is important to know how life quality is perceived by these people. By using life quality evaluations, challenges of the elders' lives will be revealed and hence their life quality can be improved in this way and also this question will be answered as "is there any significant difference between life quality of the rural and urban elders of Zanjan?"

Tesai (2004) concluded that generally the urban elders in Taiwan have better life quality than the rural and that is why they are healthier. As the rural live in mountainous areas and they walk long distances in each day, their lives had gotten difficult. Also, they do not have appropriate state of food and water. Salari, Lak, Gorgin Karaji and Amiri's (2012) research "investigating the elders life quality in Kamyaran Township on 2009" showed that the average of all life quality indexes among the rural elders were higher than the urban ones and such a

difference was a significant statistic relation. The other considerable point was the difference between life quality of the patient elders and those who have no sicknesses.

Badri, Rezvani and Gharanchik (2012) investigated mental indexes of life quality in rural areas of Torkaman Township. The highest level of life quality satisfaction was observed in quality of social interaction and integrity and security and the lowest quality belonged to employment, income and spending free time. Nejat and his colleagues (2007) evaluated life quality in Tehran based on WHOQOL-BREF questionnaire in 2005. Based on obtained data, the scores of environment and mental health in different aging level in Tehran were significantly lower than general scores obtained in different areas of the world with the same aging range.

WHO defines life quality as how people perceive their lives culturally and the value system they live in, their goals, standards, priorities and expectations, so it is a completely personal concept and not visible by others. The main factor which determines life quality is the perceived difference between what it is and what it should be from the person's point of view (Nejat, 2006:2-11).

A society can be considered as a high quality society where in its citizens shall obtain an acceptable level of social and economic life and let them flourish their capacities since in this point of view physical and social dimensions of life quality are combined together. In the ecologic approach, life quality is viewed as an element of a whole process in which each element is affected by other elements, in this case it can be said that life quality depends on the environment. Ecologic approached emphasize on mutual continuity of all elements.

Milbrath categorizes ecologic approached, he considers life quality as an aspect of ecologic process and defines it as an element along with environmental biologic dimensions. In his point of view life quality and environment act as output and input, if the their sequence begins in a way that environment is

as input and life quality as output, then life quality turns into data in the next step and evolves the environment and consequently life quality develops and the cycle goes on and hence life quality extent changes considerably by the passage of the time (RabaniKhorasgani, 2006: 46-48). It seems that among different theories, "The Theory of Place" in environmental psychology defines inhabitants' satisfaction as "experiencing pleasure and joy obtained from living in a special place" (Bonaiuto, 2003: 42).

In the present research life quality has been defined from two point of view: providing human needs through available sources, facilities and opportunities by the environment and people's perception, evaluation and satisfaction from providing their needs. The feelings of mental well-being, life satisfaction, social trust, self-confidence and purposeful life are affective factors which are presented in fundamental needs approach, Flanagan theory, Kamins theory and Brown theory in mental dimensions of life quality. Some of these theories which are mainly based in obtained statistics, have been inferred from investigating situation of objective life environment. Fundamental needs approach is one the most important proposed theories which introduces objective elements such as food, shelter,Doyal and Geff proposed theory of human needs which consists of 6 needs which are related to physical health including nutritious foodstuff and healthy water, secure home, a safe workplace, safe environment, controlling birth rate and healthy labor, appropriate medical and hygienic care and 5 other dimensions i.e. safety in childhood, having basic significant relations, physical security, economic security, appropriate education of fundamental needs are related to practice.

Zaffdefines life quality as a mixture of objective life conditions and subjective welfare of people and groups. He believes that while evaluating life quality, both objective conditions of life and people's evaluation of these conditions

shall be considered with real welfare simultaneously. Brown considers macro indexes affecting life quality as income, employment, housing, education and other environmental conditions and micro indexes include general perception of life quality, person's experiences and values, and related elements such as welfare, happiness, life satisfaction.

MAIN HYPOTHESIS

- There is significant difference between life quality of urban and rural elders.

SUBSIDERY HYPOTHESIS

- There is significant difference between life quality of urban and rural elders.
- There is significant difference between physical health of rural and urban elders.
- There is significant difference between mental-spiritual health of rural and urban elders.
- There is significant difference between social relation health of rural and urban elders.
- There is significant difference between environmental health of rural and urban elders.

METHOD

The method of this research was descriptive- analytic and cross-sectional method based on its purpose. The population of this study consisted of all the rural and urban elders of Zanjan Township (all the elders who were above 65 years old were considered as elders in this research). Based on the census carried out on 2011, the whole population of Zanjan Township was 486,495 people from among which 30,675 people were older than 65 and 22,962 people were from urban areas and 7,713 people from rural areas. The sample size of 379 people was divided between urban (190 people) and rural (189 people)

population. In cluster sampling step, different cities of Zanjan Township were chosen as the first cluster (Zanjan City), then from among different parts of Zanjan Township, Zanjanrud-e Pain Rural District was considered as the primary district.

By using cluster sampling for Zanjan city (including 3 urban areas) was selected as sample and 190 questionnaires among urban areas and 189 questionnaire among rural areas were distributed. The proposed questionnaire was based on mentioned criteria of WHO under the heading of Life-Quality Questionnaire (WHOQOL-BREF).

FINDINGS

Descriptive statistics and investigating demographic variables forms the most important part of each research, and analysis of this part can be very helpful and effective in research.

EDUCATION

Table 1. Population distribution based on education

Statistical index	Frequency	Percent
Level of education		
Lower than diploma	235	56.6
Diploma	101	25.6
B/S or B/A	34	8.6
M/S or M/A and higher	10	2.5
Total	380	100

Based on table 1 the highest frequency belonged to the category of people who have lower than diploma degree (56.6%) and the lowest category belonged those who had a degree of higher than M/S or M/A and higher (2.5%).

AGE

Table 2. Population distribution based on age

Statistical index	Frequency	Percent
Age		
67-75	154	40.5
76-85	129	33.9
Higher 85	97	25.5
Total	380	100

Based on table 2 the highest frequency belonged to the category of people who were between 65 to 75 years old (40.5%) and the lowest one were those who were older than 85 years old (25.5%).

INCOME

Table 3. Population distribution based on income level

Statistical index	Frequency	Percent
Income		
Lower than 4,000,000 Rials	151	39.7
4,000,000-7,000,000 Rials	138	36.3
7,000-10,000,000 Rials	78	20.5
Higher than 10,000,000	13	3.4
Total	380	100

Based on table 3 the highest frequency belonged to the category of people whose income was lower than 4,000,000 Rials (39.7%) and the lowest one were those whose income were higher than 10,000,000 Rials (3.4%).

JOB TYPE

Table 4. Population distribution based on job type

Statistical index	Frequency	Percent
Job type		
Tradesman	108	28.4
Clerk	41	10.8
Worker	34	8.9
Retired	69	18.2
Housekeeper	47	12.4
Unemployed	81	21.3
Total	380	100

Based on the table 4 obtained results the highest frequency belonged to tradesmen (28.4%) and the lowest one to the workers (8.9%).

GENDER

Table 5. Population distribution based on gender

Statistical index gender	Frequency	Percent
Female	174	44.8
Male	206	55.2
Total	380	100

Based on Table 5, the highest frequency belonged to men with 206 people (55.2%) and the lowest one belonged to women with 174 people (44.8%).

DESCRIPTIVE STATISTICS

In this part, descriptive statistics of the two urban and rural groups were analyzed:

Table 6. Descriptive indexes of the variable in rural group

Variables	N	Mean	SEM	SD	Min.	Max.
Life quality	191	88.72	1.06	14.68	53	115
Physical health	191	25.69	0.47	6.51	13	34
Mental health	191	21.25	0.5	6.92	10	35
Social relation health	191	6.11	0.08	1.14	4	9
Environmental health	191	35.66	0.62	8.69	16	52

Table 7. Descriptive indexes of the variable in urban group

Variables	N	Mean	SEM	SD	Min.	Max.
Life quality	189	69.79	1.4	19.27	26	111
Physical health	189	24.73	0.41	5.66	12	35
Mental health	189	15.56	0.51	7.04	8	30
Social relation health	189	7.56	0.1	1.39	3	9
Environmental health	189	21.93	0.68	9.37	11	42

Based on above tables, all the variables in urban elders are higher than rural elders except health of relations.

INFERENCE STATISTICS

Inferential statistics forms the main part of statistical analysis. In this research, the components of life quality in two groups of urban and rural areas were investigated and the questions were designed based on the scope of study, independent sample t-test were used to assess the data.

For choosing statistical method, first Kolmogorov–Smirnov test was used to analyze data normality to consequently investigate the required research method type (parametric and nonparametric), if the data are normal, the most important presupposition of parametric tests is confirmed.

ONE SAMPLE KOLMOGOROV-SMIRNOV TEST

$$\left\{ \begin{array}{l} H_0 = \text{data are from a normal population} \\ H_1 = \text{data are not from a normal population} \end{array} \right.$$

$$\left\{ \begin{array}{l} H_0 = P > 0.05 \\ H_1 = P < 0.05 \end{array} \right.$$

Table 8. One-sample Kolmogorov–Smirnov test

Statistical indexes variables	Life quality	Physical health	Mental health	Social relation health	Environmental health
Z	0.66	0.51	1.14	0.71	0.86
P	0.76	0.96	0.14	0.67	0.43
Level of significance	0.05	0.05	0.05	0.05	0.05

Based on obtained results of Table 8 and level of significance of the variable which are larger than 0.05, data of all variables are normal and parametric tests can be used to test each variable.

H₁: There is significant difference between life quality of urban and rural elders.

Table 9. Mean comparison of two groups in life quality

Statistical indexes	N	Mean	SD	Mean differences	<i>t</i>	Df	Level of significance
Urban	191	18.72	14.68	18.92	10.77	378	0.001
Rural	189	69.72	19.27				

Based on the obtained results, since the amount of *t* (10.77) with df of 378 is larger than the *t* in table and level of significance of this test is equal with 0.001 and smaller than significance level of 0.05, so it can be certainly declared that this hypothesis is confirmed.

H₂: There is significant difference between physical health of urban and rural elders.

Table 10. Mean comparison of two groups in physical health

Statistical indexes	N	Mean	SD	Mean Differences	<i>T</i>	Df	Level of significance
Urban	191	25.69	5.66	0.96	1.53	378	0.12
Rural	189	24.73	6.51				

As shown in table 10, since the amount of *t* (1.53) with df of 378 is smaller than the *t* of table and level of significance in this test is 0.12 which is larger than significant level of 0.05, it can be concluded that there is no significant difference between mean of two groups, hence the hypothesis is rejected.

H₃: There is significant difference between mental health of urban and rural elders.

Table 11. Mean comparison of two groups in mental health

Statistical indexes	N	Mean	SD	Mean Differences	<i>t</i>	Df	Level of significance
Urban	191	21.25	6.14	5.68	7.93	378	0.001
Rural	189	15.56	7.68				

Based on table 11, the amount of obtained *t* (7.9) with df of 378 is larger than the amount of table and significant level is 0.001 which is smaller than significant level of 0.05 which shows there is significant difference between the scores of two groups, hence the given hypothesis is confirmed.

H₄: There is significant difference between social relation health of urban and rural elders.

Table 12. Mean comparison of two groups in social relation health

Statistical indexes	N	Mean	SD	Mean Differences	t	Df	Level of significance
Urban	191	6.11	1.14	-1.45	-11.07	378	0.001
Rural	189	7.56	1.39				

Based on the obtained results, since the amount of t (11.07) with df of 378 is larger than the amount of table and significant level is 0.001 which is smaller than 0.05, hence it can be concluded that there is significant difference between the scores of two groups and this hypothesis is confirmed.

H₅: There is significant difference between environmental health of urban and rural elders.

Table 13. Mean comparison of two groups in environmental health

Statistical indexes	N	Mean	SD	Mean differences	t	Df	Level of significance
Urban	191	35.66	9.37	13.73	14.80	378	0.001
Rural	189	21.93	8.69				

As illustrated in Table 13, the amount of t (14.80) with df of 378 is larger than the amount of the t in the table and the level of significance is equal with 0.001 in this test which is smaller than significant level of 0.05, hence it can be concluded that the observed difference between scores of two groups are significant and the hypothesis is confirmed.

CONCLUSION

H₁: There is significant difference between life quality of urban and rural elders.

Based on the obtained data and level of significance, this hypothesis was confirmed which shows that urban elders experience a higher level of life quality compared with rural ones. Regardless of where people live in, they look for a

satisfying life which naturally requires some conditions and factors enabling them to have a long-term welfare (Rostam Ali Zadeh & Soleimani, 2011). The results of this hypothesis are against Oktay and Rustmelli's (2010) findings about life quality in Famagusta. They found that their general satisfaction of urban life quality was lower in there. Generally, people in Famagusta were not satisfied with entertainment facilities, transportation, traffic, ... in their town. (Hashemi, 2014: 7 as cited in Oktay and Rustmelli (2010). Also it is not in line with the findings of Sabah and et. al. (2003) in which all dimensions of rural life quality were better than urban ones. Hence, policy makers should attempt to remove the distance between life quality of urban and rural areas and apply the best available standards in rural lives.

H₂: There is significant difference between physical health of urban and rural elders.

Based on obtained results, it was found that with respect to the amount of t and significant level of urban elders, they have higher level of physical health compared with rural elders. Doyal&Geff in their theory declare that having good physical conditions is the most important factor of a life quality with high level. Flanagan &Kiminz who hold a multi-dimensional approach believe that physical goodness, social relations, individual growth, materialistic welfare and place of living are important factors. Since it is expected that the elders are affected by different diseases in this stage, then they have lower satisfaction from their physical health. However, it seems that urban elders are more satisfied with their physical health due to availability of better facilities. In this stage of life, both groups face some issues such as sleep disorders, decrease of biologic and mental joy, losing weight, Tesoy's (2004) findings revealed that urban elders have higher level of physical health which is in line with obtained data in this research.

H₃: There is significant difference between mental health of urban and rural elders.

It can be said that the observed difference between two groups was highly significant, hence the given hypothesis is confirmed and null hypothesis is rejected. Rural elders experience worse life quality in this dimension compared with urban ones. France in his perceptive model declares that mental status is an effective factor in life quality. The needs such as emotional attention, physiological needs, security, love, affection, self-esteem, respect and ... are the most important factors for elders and neglecting these needs might lead to decrease of life quality. It should be mentioned that the results of this research is in line with findings of Salari Lak and et. al (2012) who found that rural elders had better status of mental health. Also, Nejat and et. al (2007) concluded that mental health status in Tehran was significantly lower among elders in comparison with the same age level in other parts of the world.

H₄: There is significant difference between social relations of urban and rural elders.

With respect to significant level and the amount of t , it can be concluded that the hypothesis is confirmed, it means that there is a significant difference between urban and rural elders regarding social relation health which is mostly observed among rural elders. Social relations are those effective elements that Widown (2003) calls them the reason of an appropriate life quality. Generally, it can be said that the elders become solitary as their relations with friend and working environment are cut off. The results of Marchipori and et. al.'s (1981) research pointed to the social relations of elders and life quality. Today, in urban societies the elders have the lowest authority and power because of development of industrial life and paying less attention to family values while in rural societies the elders continue their social activities as long as they are healthy enough. In urban societies, the elders are obliged to get retired

at a specific age which not only affects their monthly income but also their social relations.

H₅: There is significant difference between environmental health of urban and rural elders.

Based on the obtained results and level of significance there is difference between environmental health of rural and urban elders, hence the given hypothesis is confirmed and the null hypothesis was rejected. Indeed, it can be concluded that urban elders of Zanjan experience better life conditions than their rural peers which can be due to different reasons such as level of hygiene, healthy water and social problems. Das (2008) defines life quality as well-being of people and their living environment and in Pacione's (2003) point of view life quality is conditions of where people live in and their personal situations. Ventegodt (2003) believes that social consistency is very important in collective dimension of life quality. Based on the findings of Hashemi's (2014) research citizens of Tehran have a low level of satisfaction from their life quality and some of indexes such as public transportation, service facilities and aesthetic factors are the most significant factors affecting urban life quality.

Salari Lak and et. al. (2012) evaluated the average of all life quality indexes of rural elders to be higher than urban ones.

In this regard, some suggestions and implications can be observed as below:

- Developing landscape gardening, improving entertaining facilities, sport complexes, resting places for elders to relax so that they feel satisfied mentally.
- Although having different limitations and deficiencies, many of elders can do their simple works, however, some of the families suppress elders' abilities by not reinforcing them.

- Some of the villages do not have a healthy water which is one of the basic needs of humanity, even they do not have any water during summer, unhealthy water is a threatening factor of life quality.
- Building new apartments for the elders who have lower income and renewing old rural houses.
- Performing encouraging or even obligatory programs for doctors and practical nurses to visit deprived areas, the inhabitants of some villages claimed that there is no health centre in their village or it is closed, and in case of its availability the patients are examined once in a week. Improving level of hygienic awareness and providing acceptable services to elders is another suggestion of this research.
- Reducing environmental pollutants and annihilation of insects and animals such as cockroach and mice by improving environmental hygiene.
- The elders should live with other members of their family, it can be certainly said that those elders who are living alone, suffer from many mental, economic and social problems which considerably affect their life quality.
- Most of urban elders do not have any special activity which is also observed among rural elders. But due to the fact that they keep working for long years, so they are not too much isolated. Anyhow, improving the quality of sport complexes and encouraging them to do exercises can be very effective.
- The elders, especially rural ones and non-governmental worker suffer from not having any life insurance, also lack of medical insurance in rural areas can be observed obviously.
- Most of elders are dissatisfied with their life conditions and believe that their received income does not support them and hence they are dependent on their children. Of

course in this research there were some elders who pointed out they expenses are very high due to the large family they have but generally most of them declared that the only source of income is the subsidy they receive from government which considerably affect their life quality.

- Since most of the elders have physical problem, hence the health organization should plan for their future. Most of these issues will be solved by reforming nutrition plans, changing life style, doing exercises and ... but what is very important is the fact that the elders' physical conditions should be examined once in a month.

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