

# Age-Friendly Cities Features From the Elderly's Perspectives Underscoring "Community Support and Health Services"



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## ABSTRACT

**Background:** The 21<sup>st</sup> century is characterized by two challenges; 1) Urbanized population, 2) Ageing population. In this regard, the Iranian old population ages over 60 years is expected to grow rapidly. Improving the elderly's quality of life is one of the challenges for policymakers and achieving this goal is accessible by designing accurate plans. In this way, WHO has initiated a global project to define "age-friendly cities." This study aims to evaluate the criteria of age-friendly cities from the elderly's perspectives.

**Methods:** This cross-sectional study employed interview technique on 400 older adults selected by stratified sampling method. The samples attended four community health centers. Demographic information of participants was collected and the abbreviated mental test, along with age-friendly cities checklist were administered, too. Data was analyzed by descriptive and inferential statistics using SPSS 20 ( $P < 0.05$ ).

**Results:** In this study, 53% of participants were female and 47% were male. The majority of participants (56.8%) were in the age range of 60-70 years. Most participants (59.8%) passed elementary and high school. The mean score of "community support and health services," from participants' perspectives was 26.82, which was lower than the mean score of the tool (42). The variables of "housekeeping" and the average of "outdoor spending time" (1-3 h) had the highest relationship with the elderly's perspectives on "community support and treatment-health services."

**Conclusion:** Based on the results, welfare-cultural planning according to the older adults' perspectives and a creative collaboration among health policymakers and other organizations involved in ageing issues must be emphasized to empower the criteria of age-friendly cities.

### Keywords:

Age-friendly city, Age-friendly community, Ageing

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## 1. Background

Today the world is faced with major challenges of increasing urbanization and aging. According to the statistics, the number of people over 60 years will increase from 12% in 2015 to 22% about two billion in 2050 (UNDESA 2013). Although a definite number has not been determined for old age, the United Nations has accepted chronological age of 60 years and more as the old age (WHO 2015a).

According to the 2011 population and housing census results released by the Statistics Center, Iran's population is 75149669 that 7.5% of the figure belongs to the old people (Statistical Center of Iran 2011). Currently, Iran old age population is about 8000000 (Secretariat National Council of the Elderly, 2016). With increase in old population, the number of old people is also increasing in urban areas and so WHO referred to the world as a growing city. The majority of Iran's population (71.4%) are living in cities, too (Statistical Center of Iran 2011).

In this regard, countries with aging populations need to take the necessary precautions to meet this demographic change and provide favorable conditions for "ageing in place" (a situation which old people, in addition to being active and interacting with the community, have easy access to all services needed) (Lowen et al. 2015). On the other hand, one of the main concerns of governments and policy makers in health sector, is the promotion of health in the community. Unfortunately, so far, there has been little attention to the social dimension of health in the studies conducted on the health of the old people. The social health of an individual depends on his or her interaction with the community and surrounding environment (Alidoušt et al. 2014). However, paying attention to all aspects of health is essential and satisfying social needs (such as housing, nutrition, and employment) of individuals in a society which include the old people is as important as physical and mental health and lead to the promotion of their general health and significant reduction of the costs associated with health care (Nguyen et al. 2015).

Moreover in a rapidly aging world, taking policies to promote the elderly's quality of lives and maintaining their performances and independence must be placed under the priorities of the authorities. Currently the America health system has focused its best on the promotion of the health-related quality of lives of the elderly people with chronic diseases and various disabilities. Obviously, these efforts requires attention to all aspects of life quality, including its social aspect.

Today, the ever-expansion of cities, changes in lives of city dwellers, and prominent decrease in family gatherings has led to a lonely sensation in the elderly. In this regard, many old people live alone and some of them due to chronic diseases and limited mobility are prone to seclusion and then prominent decrease in the quality of life (as a key and valuable index in determining health status of people). In 2005, the concept of "age-friendly city" has been introduced by WHO for the first time as a strategic plan to deal with the challenge of aging population following the increase in urbanization. Because the challenges facing the old community almost are similar all over the world, they need flexible environment and in accordance with changes made by aging to adjust properly with these changes (Steels 2015).

Fortunately, the process of its creation is rapidly progressing around the world (Dellamora et al. 2015). The main results of the "aged-friendly city" project is explaining its 8 key components by which the situation of a city or community can be evaluated in terms of the above components. The main components of age-friendly city raised by WHO are as follows: urban open spaces and buildings, transportation, housing, respect and social interactions, social participation, information and communication, employment opportunities and civic participation, community support and healthcare services (WHO 2013a; Plouffe & Kalache 2010).

Studies have shown that from the perspective of the old people, the parameters of services, family physicians, pharmacies, libraries, shopping and restaurants have high priorities (Lowen et al. 2015). Also, the results of a study in America with the purpose of determining the priority components of age-friendly city from the perspective of urban experts and specialists in caring for the old people showed that both groups gave the highest priority to two components of "community support and healthcare services" and "respect and social inclusion" (Ruza et al. 2015). By joining Tehran to the age-friendly society (Tehran. C.O, 2015), appropriate opportunity has been created for professionals in health and ageing areas to use their expertise to conduct research and study in this field toward achieving age-friendly community.

In the general review of studies on age-friendly city, it was found that few studies were conducted in this field in our country and most of them stressed on the aspects of urbanization and solely evaluation of the physical space of the buildings. Thus, further investigation is required, especially in health aspects to create conditions for active and healthy aging environment and improve the quality of life of old people. According to the literature, there was no research conducted in Iran on the assessment of components of age-

friendly city with the focus on factors associated with the health care field (such as neighborhood support component and healthcare services).

In a study conducted in Mashhad, Iran with the purpose of evaluating the outdoor spaces and transportation in the city based on age-friendly indexes, the evaluation of cities has been much emphasized from the perspective of old people as the major clients (Kharazmi, 2014). Therefore, the present study aimed to evaluate the index of "community support and health services" from the perspective of the old people and determining the relation between old people views with their individual characteristics.

## 2. Materials and Methods

This research is a cross-sectional descriptive study and the study population included 60 years old or older people, living in district 2 of Tehran who were registered on urban healthcare centers of Ghods, Sa'adat Abad, Shahid Kazemiyan, and Farahzad. The second district of Tehran municipality was selected because the office of WHO in Kobe, Japan evaluated and then chose Tehran as one of the qualified cities for assessment and localization of age-friendly indexes and execution of this project has been started in district 2 of Tehran. The sampling method was stratified and proportional. The researcher at first found that average daily admissions to each center and then calculated the sample size with respect to admissions to each center by the following formula:

$$\frac{\text{The sample size calculated for the study}}{\text{Total daily admissions to 4 centers}} \times \text{Daily admissions to each center} = \frac{\text{The sample size of each center}}{\text{of each center}}$$

In Kharazmi et al. study, sample size was estimated as 384 according to Cochran's formula (Kharazmi et al. 2014).

In this study and with regard to research purposes, the sample size was calculated with %95 confidence interval and precision value "d" and insertion into the following formula:

$$n = \frac{(z_{1-\alpha/2}^2 \times \sigma^2)}{d^2}$$

The required sample size was calculated as 400. It is to be noted that according to Kharazmi et al. 2014 study, the value of  $\sigma$  was determined as 1 and the sample size was calculated by this formula:

$$n = \frac{2^2 \times 1}{(0.1)^2}$$

n value was calculated as 400 and the share of each health center are as follows: Ghods, 73(18.3%); Saadat Abad, 111(27.8%); Shahid Kazemiyan, 116(29%); and Farahzad, 100(25%). After introducing the research and ensuring participants of the confidentiality of their information and also obtaining their written consent forms, the study samples were chosen. Inclusion criteria comprised being 60 years or older and having no cognitive impairment. In case of having a history of acute or chronic mental and cognitive disorders, participants were excluded from the study. Then, they were divided into 4 age groups of 60–70, 71–80, 81–90, and more than 90 years of age.

Completing the questionnaires has been done through self-filling by literate participants and through interview with illiterate participants. After designing the procedure, it was approved in Ethics Committee of the Iran University of Medical Sciences. Data were collected anonymously and all subjects were assured that the data collected are used only for the research purposes. At the end, after providing the necessary explanations, written informed consent forms were obtained from all participants.

In order not to disrupt in tasks of the personnel working in healthcare centers, coordination was done with authorities of all 4 healthcare centers and a suitable room was selected in each center to complete the questionnaire in a peaceful and appropriate environment. The necessary explanations have been provided on how to respond to questions and it took them 20 to 30 minutes to respond the questions. In the next step, Abbreviated Mental Test (AMT) were in their possession. People who scored at least 7 in the AMT have met the inclusion criteria. This study was conducted from September 2015 to March 2016.

To collect data in this study, Abbreviated Mental Test (AMT), demographic questionnaire, and the checklist of Essential Features of Age-Friendly Cities (standardized by the World Health Organization) have been used. Below each of the questionnaires are explained briefly.

### Abbreviated Mental Test (AMT)

A shortened version of the cognitive test has been extracted for the first time by Hodkinson with 10 questions of 37-questions test by Roth-Hopkinson; the score of which had good correlation with brain pathological diseases in autopsy (Hodkinson 1972). Hodkinson discriminative test items of above mentioned test which had the best discrimination power for the shortened cognitive test. Then, Hodkinson and Qureshi (1974) in a study determined its sensitivity and specificity. The validity and reliability of the test have been confirmed

in Iran by Bakhtiyari et al. (2014). Furthermore, it has an acceptable internal reliability (Cronbach  $\alpha$  coefficient of 0.76) and a good face validity. This scale consists of items scored from 1 to 10 which an old person should be able to obtain a minimum score of 7 out of 10. Due to its shortness and repeatability, being independent from literacy and little association with culture and language, it seems to be an acceptable test (Bakhtiyari et al. 2014).

### Demographic questionnaire

Demographic questionnaire has been designed according to the study purposes and review of the literature and questions of the researcher. It included questions about age, sex, marital status, occupation, education, health insurance, driving, and the use of mobility aids.

### Evaluation checklist of essential features of age-friendly cities

This checklist contains 8 components that in the present study the component of "community support and healthcare services" has been selected. This component contains 14 items. Items are scored based on Likert-type Scale (1: totally disagree; 2: somewhat disagree; 3: I do not know; 4: somewhat agree; 5: totally agree). The total score ranges between 14 and 70 and scoring has been done based on the average scores of the samples (WHO 2011a; WHO 2009a). This is WHO's standard checklist and its validity and reliability have been approved. However, in this study we attempted to validate (translation and retranslation) and recheck its validity and reliability.

In order to determine the content validity, the checklist was given to 10 members of the Faculty of Nursing and Midwifery of Iran University of Medical Sciences as the expert panel to ask their comments and proposed amendments. After obtaining their comments, final reforms were performed. In order to confirm the reliability and validity of the instrument, 20 old people were selected (independent from study subjects) and questionnaires were given to them twice within interval of two weeks and after its completion, assessment of the reliability or internal consistency has been obtained through calculating the Cronbach  $\alpha$  (0.755). For pretest and posttest reproducibility, its correlation coefficient ( $r=0.989$ ) was calculated. It can be concluded that instrument has necessary reliability.

Data were analyzed using descriptive statistical methods (frequency, percentage, mean and standard deviation) and to determine the significance, inferential statistics (Chi-square, t-test, ANOVA, and regression tests)

were used. In this study,  $P \leq 0.05$  was considered significant. To analyze the data, SPSS 20 was used.

## 3. Results

In this research, a total of 400 men and women aged  $\geq 60$  years were studied. They were referring to urban healthcare centers (located in the second municipality district) affiliated to Tehran Northwest Healthcare Center under the supervision of Iran University of Medical Sciences and Healthcare Services. Table 1 shows the demographic characteristics of the participants. Of them, 53% were females and 47% were males. Maximum number of participants were in the age group of 60 to 70 years (56.8%) and the lowest number were in the age group of 81 to 90 years (5.8%).

The majority of old people participating in the study (79%) were married and a small percentage of them (1.3%) had been separated from their wives. Most participants had education level under diploma (59.8%) and of these 18% were illiterate. There was a statistically significant difference between literacy among old people in the healthcare centers ( $P < 0.001$ ). Also, 49.2% of old subjects were retired (males and females), 44.5% were housewives (only women) and 6.2% of them had occupation (employee or self-employed). There was a statistically significant difference ( $P = 0.023$ ) among 4 healthcare centers in terms of participants' jobs. Most working old people were in the Ghods Healthcare Center (11%) and the least were in the Farahzad Healthcare Center (4%). Table 2 shows that the average scores for "community support and healthcare services" in old people was 26.82 and it was lower than the median score which was 42.

With regard to Table 3, the relationships among all study variables and the elderly view about "community supports and healthcare services" were evaluated. As a result, the variables of sex ( $P < 0.001$ ), job ( $P < 0.001$ ), driving ( $P = 0.023$ ), using walking aids ( $P = 0.034$ ), average time spending outdoors ( $P = 0.007$ ) showed significant relationship with the elderly's views about this index. Thus, to examine the correlation of these variables with the elderly's view about "community supports and healthcare services", we used the multiple regression with Enter method. The results of this test are presented in Table 3. With regard to P-values of "Housewives" and "average spending outdoors of 1-3 hours," these two variables stay in the model. With references to the results presented in Table 3, two variables of "housewives" and "average time spending outdoors" had the highest correlation with the criterion of "healthcare, entertainment, and cultural services."

InTable 1. Demographic information of study participants.

	Characteristics (Variable)	No.	%
Gender	Female	212	53
	Male	188	47
Age groups, y	60-70	227	56.8
	71-80	150	37.5
	81-90	23	5.8
Marital status	Single	11	2.8
	Married	316	79
	Divorced	5	1.3
	Widowed	68	17
Job	Retired	197	49.2
	Housewife	178	44.5
	Employee or freelancer	25	6.2
Education level	Illiterate	72	18
	Elementary	119	29.8
	Secondary	48	12
	Diploma	111	27.8
	University degree	50	12.5
Insurance coverage	Yes	371	92.8
	No	29	7.2
Head of the family	Himself/herself	262	65.5
	Spouse	131	32.8
	Children	7	1.8
Life status with the family	Alone	56	14
	With spouse	177	44.3
	With spouse and children	139	34.8
	With children or peers	28	7
Driving ability	Yes	127	31.8
	No	273	68.3
Using walking aid	Yes	12	3
	No	388	97
Average time spending outdoor	Less than 1 hour	106	26.5
	1 to 3 hours	232	58
	More than 3 hours	62	15.5

**Table 2.** Numerical indices of studied old people's attitude towards the component of "community support and healthcare services" according to demographic information.

		Mean	SD	Test Results
Gender	Female	27.72	5.45	t=3.572*, df=398, P<0.001
	Male	25.80	5.23	
Age groups, y	60-70	26.72	5.23	F=4.672**, P=0.512
	71-80	26.72	5.54	
	81-90	28.09	6.58	
Marital status	Single	26.36	4.92	F=0.420**, P=0.739
	Married	26.69	4.92	
	Divorced	28.00	6.28	
	Widowed	27.40	5.36	
Job	Retired	25.76	5.04	F=9.963**, P<0.001
	Housewife	28.14	5.63	
	Employee or freelancer	25.72	4.95	
Educational level	Illiterate	27.53	7.26	F=0.793**, P=0.530
	Elementary	27.07	5.00	
	Secondary	26.94	5.33	
	Diploma	26.3	4.45	
	University degree	26.16	5.42	
Healthcare center	Ghods	27.42	4.87	F=13.267**, P<0.001
	Sa'adat Abad	26.22	4.92	
	Shahid Kazemian	28.92	6.19	
	Farahzad	24.60	4.40	
Insurance coverage	Yes	26.77	5.32	t=0.614*, df=398, P=0.540
	No	6.73	27.41	
Head of the family	Himself/herself	26.39	5.47	F=2.851**, P=0.059
	Spouse	27.73	5.31	
	Children	25.71	4.03	
Life status with the family	Alone	56	14	F=2.00**, P=0.114
	With spouse	177	44.3	
	With spouse and children	139	34.8	
	Children or peers	28	7	

\*Independent t-test.

\*\*Variance analysis.

**Table 3.** Results of regression analysis related to old people's attitude towards the component of "community support and healthcare services".

		Coefficient of the Model	Standardized Coefficient of the Model	t	P-Value
	Constant rate	27.31	-	22.93	<0.001
	Gender (0=female, 1=male)	0.61	0.06	0.63	0.531
	Driving ability (0=No, 1=Yes)	-0.14	-0.01	0.18	0.853
	Using walking aid instrument (0=No, 1=Yes)	1.77	0.06	1.16	0.246
Healthcare center	Sa'adat Abad	-1.61	-0.13	2.11	0.036
	Shahid Kazemian	1.05	0.09	1.33	0.185
	Farahzad	-3.87	-0.31	4.58	<0.001
Job	Housewife	2.88	0.26	2.82	0.005
	Employee or freelancer	-0.76	-0.03	0.65	0.518
Duration of spending outdoor	1 to 3 hours	-1.39	-0.13	2.10	0.036
	More than 3 hours	-0.69	-0.05	0.61	0.540

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other words, housewives compared to retired (reference group) people, while all other conditions remain constant, gained higher scores with respect to the model factor (2.88). Also, those who stayed 1-3 hours outside, compared to the reference people who spend less than 1 hour, while all other conditions remain constant, gained lower scores with respect to the model factor (-1.39). Furthermore, the results of Table 3 shows that mean scores of "community supports and healthcare services" index is higher in women compared to men ( $P<0.001$ ) and mean scores of this index was higher in those who were driving (compared to those who were not) ( $P=0.023$ ). Finally, the mean score of this index was higher in those who used walking aids tools compared to those who did not ( $P=0.034$ ).

#### 4. Discussion

In this study, 400 old people who were referring to 4 healthcare centers affiliated to the Northwest Health Center, located in the Second District of Tehran Municipality were interviewed. Based on the results of this study, the mean score of the index "community support and healthcare services," from the perspective of the old people was 26.82, which was less than the median score of the instrument. This index or criterion is not in a desired status from the perspective of old people. The highest mean score in this index (3.26) was related to the sixth item i.e. "the behavior of the officials and personnel

of service centers towards old people, along with respect and special attention." And the lowest mean score (1.04) was related to the tenth item i.e. "there's a free service of home care which includes services related to health, personal care, and home cleaning" (Table 2).

Unfortunately, other items had low mean scores and for this reason and according to the results of this study it seems necessary that with regard to the index of "community support and healthcare services" to standardize equipment provided to old people and establishing homecare centers with low costs and tailoring them to their needs. Furthermore, the authorities should provide healthcare-based services, perform screening at a reasonable cost and based on needs, issues, and common diseases of old age, present medical training tips on prevention of diseases, create a suitable platform to offer voluntary services and provide structured and targeted training for health care staffs. In the current study, most participants (59.8%) had under diploma education.

This issue was effective on the amount and quality of the elderly's information about the study indexes, their answers to questions of the questionnaire, and their interaction with the researcher. Studies have shown that the education level of the old people and their ability to use new technologies like computer has positive effects on their active and continuous communication with their children and society. On the other hand, the low-literate

old people with inability to use new technologies get unwillingly separated from society.

In the study by other researchers, the importance of health and healthcare services was stressed and the importance of referring to family physician or pharmacies from the perspective of the old people was emphasized. In this regard, the findings of some researchers led to the inclusion of key services such as hospitals, family physicians, and care facilities for the old people in age-friendly city assessment indicators in Australia (Lowen et al. 2015). In addition, a review article on age-friendly cities around the world found that provision of health and social services (with good quality) is considered a fundamental requirement in the development of societies and providing well-being for old people (Fitzgerald & Caro 2014).

Most study participants (93%) were residing at their homes and this is considered a strong point for the mentioned old people. House is one of the key components of age-friendly city and an important factor for enjoying an age-friendly community. Although, having a wholly-owned property largely provides the security condition for the elderly, it is not enough for the elderly's welfare and convenience. For example in this research, several houses were observed that did not possess living standards with respect to physical construction or primary security and health facilities for the elderly, and they might be regarded merely as temporary shelters.

Also, Sadeghi and colleagues emphasized the importance of housing on their research about age-friendly city. In their study, which was conducted with the participation of the elderly and their family caregivers in four health-care centers of Tabriz, general questions about three domains of outer space, transportation, and housing, according to the World Health Organization checklist, were presented. The older people participating in this study stressed on the wholly-owned housing for the elderly, keeping their security, and resolving the problems of living in apartments.

Findings of this study showed most participants were unemployed and 6.2% of them had jobs (employee or self-employed). Most working old people were related to the Ghods center and the least number to the Farahzad center. Perhaps according to the results of studies conducted on the importance of work in health promotion, this is a threat to interact and the relationship between the old people in Tehran with community and their health status. Similarly, a Japanese researcher studied the effects of working and working hours on health status of Japanese old men. The results of this study show a significant and positive impact of working hours of old

people on their health status and based on this research, less work can be a factor for low health status of old people. Apparently on the one hand, working leads to increased income and more security and subsequently spending more money on health and medical affairs and on the other hand, it improves the health status of the old people (Kajitani 2011).

Results of a study in Canada show that social participation and activities of old people are closely related to their health and well-being and there was a positive correlation between social participation and perceived health, lack of loneliness, and life satisfaction (Gilmour 2012). Research has also shown that social participation has protective effects on the symptoms of depression in working women and men. In addition, those who have the key role in their organization have reported better mental health (Takagi et al. 2013). In this study, one of the reasons for low score of "community supports and healthcare services" index from the perspectives of old people may be related to their unemployment (97% retired or jobless).

According to the results of this study (Table 3), the mean score of "community support and healthcare services" criterion was higher in women (27.72) than men (25.80), and the difference was statistically significant ( $P < 0.001$ ), although some old people participating in the study (especially the old people in Shahid Kazemian Center) were couples, and accordingly had the same healthcare, sanitary and economic status. However, the median score for this study component was higher in women than men. Furthermore in this study, there was no statistically significant relationship between age variable and attitudes of old people towards the component of "community support and healthcare services".

In this regard, the results were consistent with Telatar study. This study was conducted on 2269 old people in Sinop, Turkey with the purpose of assessing the level of their satisfaction of the healthcare services. Then, it was concluded that with increasing age of the old people, their satisfaction from healthcare services reduced (Telatar et al. 2015). In the present study, there was a statistically significant difference between age variable and attitude of old people towards the component "community support and healthcare services" ( $P < 0.001$ ).

According to Scheffe test results, there was no significant difference between old housekeeper women and the retired ones with regard to service provision and the mean score of housewives was higher than that in the retired ( $P < 0.001$ ). The results of a study in Japan with the purpose of identifying limitations of the participation of the old people in so-



ciety and the social activities, has shown that having a job acts as an encouraging factor for the old people to interact with the young. However, in that study, having a job had no significant effect on the participation of the old people in society and social activities (Kadoya 2013).

Table 3 shows the numerical indexes of old people's views towards the "community support and healthcare services" criterion in terms of their daily activities. In a recent study, there was statistically significant difference between variables of using mobility aids ( $P=0.034$ ), driving ability ( $P=0.023$ ), and the mean time spending outdoor ( $P=0.007$ ) with old people's view towards the "community support and healthcare services" criterion. In accordance with the Scheffe test results (Table 3), the mean score of "community support and healthcare services" index in the old people who were not driving was higher than those who were driving ( $P=0.023$ ). Similarly, the mean scores of the study component in people who used mobility aids was higher than those who did not use these mobility aids ( $P=0.034$ ). Scheffe test showed significant differences between the median score of service provision for those with less than an hour outdoor spending with two other groups in such a way that the median score for those with less than an hour spending outside the house was higher than two other groups (on the order of 1-3 hours and more than 3 hours) ( $P=0.007$ ).

In this study, driving ability of old people has been also concerned as one of the factors for their social activities and interaction with the community and the results of this study showed that only 31.8% of old people participating in the study were able to drive and the majority of these people who do not drive either have no driving license or have some other problems (disability, visual impairment, etc.). The results in Table 3 showed that the median score of the component "community support and healthcare services" from the perspective of old people who drive (25.91) and the old people who do not drive (27.24) and the difference between the two groups was statistically significant ( $P=0.023$ ). On the other hand, the study results of Kadoya (2013) with the purpose of identifying limitations of the participation of the old people in society and social activities, have shown that the mobility of old people was influential on their participation in society and their interaction with the young. Also, old people who are able to drive have a significant difference compared to those who are unable to drive with regard to participate in social activities (Kadoya 2013).

Also, the current study results showed that most old people (68.2%) did not drive and also there was a significant difference among studied healthcare centers ( $P=0.001$ ), so

that the greatest number of old people who were driving were those referring to Sa'adat Abad and Ghods Healthcare Centers. Given that most old people who had diploma and higher than diploma were related to the mentioned centers, perhaps there was a relationship between the level of education and the ability to drive and subsequently the extent of their participation in the community and active interaction with other groups of the society.

On the one hand, results of a study on deaths resulting from road accidents in the Iranian aged people in the years 2006 to 2008 revealed that in these years, 12029 deaths happened in traffic accidents among people aged over 60 years. Of these, 19.2% of the dead were drivers, 56.9% pedestrians, and 23.2% passengers. On the other hand, 64.3% of deaths per year was related to the illiterate old people and 31.8% of deaths in each year were related to the literate old people (Ghadir zadeh et al. 2012).

Considering the importance of activities such as driving and its positive impact on people's participation in society and at the same time, potential risks arising from them for the old people (old people who were drivers and pedestrians), it is necessary to take measures to secure passages, to install traffic signs according to the conditions of the old people, and to execute medical examinations (vision, hearing, checking the status of the persons in terms of the absence of dementia, etc.) for the old people to prevent accidents annually.

With regard to the use of assisting tools, the results in Table 3 showed that the mean scores of the study criterion in people who used mobility aids was higher than those who did not use these tools ( $P=0.034$ ). In this regard, results of a study in Iran has shown that social participation in old people with different mobility levels was different and old people who have different mobility aids and the ability to move more showed higher level of social participation (Ayoubi Avaz et al. 2015).

Also, in the present study, there was a statistically significant difference among the peoples referring to the 4 healthcare centers in terms of mean time spending outdoor and doing physical activities (shopping, sports, etc.) ( $P<0.001$ ). In this research, the highest number of old people with the highest mean time spending outdoor (over 3 hours) belonged to those referring to Ghods (21.9%) and Sa'adat Abad (21.6%) Healthcare Centers and the largest number of old people who had the least mean time spending outdoors (less than 1 hour) belonged to the people referring to Farahzad (43%) and Shahid Haghghi (23.3%) healthcare centers.

During the interviews, almost all old people who referred to the Farahzad healthcare center complained about the ruggedness of the passages, alleys, and sidewalks in the area and mentioned them as the main reasons for their inactivity and staying home. This result is not consistent with the results of Rebeiro et al. (2013) study on the relationship between social-environmental features of the location of old people and the number of "Leisure-Time Physical Activity" or LTPA. Findings of Ribeiro study showed that characteristics of living place has no relationship with physical activity (Rebeiro et al. 2013).

However, the results of a study based on group discussions with the purpose of surrounding area of the old people showed that the design of the surrounding space of the elderly had an important role on their physical activities. In such a way that even some of them changed their place of residence due to heavy traffic or lack of easy access to shopping centers. This research, has only considered the physical aspects of old people places and among its limitations are investigating just a small area of the city.

In the study, the mean score of the study index, "community supports and healthcare services" from the perspective of the study was not in a suitable condition and was lower than the median score of the criterion. Therefore, the necessity of welfare-cultural planning according to the older adults' perspectives and in the line of strengthening criteria of the age-friendly city in the community is felt and a creative collaboration among health policymakers and specialists in urban areas and representatives of the elderly (including the members of the retired clubs and so on) is necessary.

The current study is of quantitative study. In a quantitative study, the researcher after collecting numerical data, observing samples, and the presenting them, start to quantitatively analyze them. On the whole, the findings of a quantitative research are more precise, but shallower than the findings of a qualitative research. On the other hand, in a qualitative research, collecting information is the result of social interaction and helps the researcher to obtain analytic, perceptive, and categorized descriptions. In general, the results of a qualitative research is richer and more holistic. Therefore, it is suggested that future studies be conducted as a combination of quantitative and qualitative studies.

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### Conflict of Interest

The authors declared no conflict of interests.

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