

ORIGINAL ARTICLE

An investigation of the relationship between ageing in place and successful ageing in elderly individuals

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INTRODUCTION

The proportion of the elderly population in Turkey has been increasing day by day. According to the 2017 data provided by the Turkish Statistical Institute, which provides up-to-date information about the Turkish population, the proportion of the elderly population in the total population was 7.7% in 2013, and it increased up to 8.5% in 2017. Population projections indicate that the proportion of elderly population is predicted to be 10.2% in 2023, 12.9% in 2030, 16.3% in 2040, 22.6% in 2060, and 25.6% in 2080.¹ This increase in the elderly population today has contributed to the increase in the attention directed to elderliness.

Normal ageing is divided into two as 'usual ageing' and 'successful ageing'. Hence, while 'usual ageing'

Abstract

Background: With the increase in longevity in the world, successful ageing has become an important issue. This study aims to investigate the relationship between ageing in place and successful ageing in elderlies.

Methods: This study, which utilised a descriptive and relational-screening model, was conducted with the participation of 370 individuals aged 65 and over who were registered in Family Health Centres in a city centre located in the eastern part of Turkey.

Results: The participating elderlies' Successful Ageing Scale mean score was 54.16 ± 11.32 , and the Ageing in Place Scale mean score was 54.24 ± 12.88 . While there was a positive, statistically significant relationship between the Successful Ageing Scale total score, the Ageing in Place Scale total score, and living in the same environment, there was a negative, significant relationship between age and the Successful Ageing Scale total score.

Conclusion: Elderlies' successful ageing processes are affected positively by the increase in the duration of living in the same environment and satisfaction level about the place they lived in. Successful ageing is negatively affected by the increase in age. It is recommended that elderly people's living environments should not be changed and their social support networks should be strengthened as much as possible so they can have a successful ageing process.

refers to people who demonstrate non-pathological, age-related changes, 'successful ageing' refers to people who demonstrate very little or almost no functional loss in comparison to their age group.² Successful ageing has been investigated by various theorists and researchers in terms of different aspects and defined in different ways. Successful ageing describes a positive ageing process in essence. This concept includes adapting to the ageing process in a determined way and using ageing-related strategies in the most effective way.³ The common themes in the research about ageing are issues such as physical and mental health, psychological health, length of life, social sufficiency and productivity, cognitive sufficiency, individual control, and life satisfaction.⁴ Successful ageing is affected by various factors such as physiological, psychological and social factors, health,

activities, and social environment. Positive or negative conditions experienced by elderly people affect whether they experience this period well or badly.⁵

For elderlies, a place is not limited to an area where they maintain their life; it is also an area where they form social relationships and elderly identity (Gardner, 2008 unpublished data). For elderlies, home life means an environment where they are accustomed to living, feel more peaceful, safe and independent, and have memories.⁶ Living in a familiar environment brings some advantages to elderly people. Especially communicating with people they know and obtaining social support could have important contributions to elderly people's life satisfaction. Elderly people who maintain their life in their own house with the support of their family and friends are reported to have increased independence and control over their life.⁷ In addition, while ageing in place increases life satisfaction and self-respect of elderlies, it is also reported to have positive effects on their health.⁸

Ageing in place is a new concept in gerontology, and there have been studies conducted on this issue in our country within the last 5 years.^{6,9–11} Ageing in place might be preferred more by elderlies due to several benefits it brings, such as enabling more social support opportunities and acting more independently.

Ageing in place aims to enable elderlies to maintain their life in their own house or the first place they lived safely and independently.⁷ When elderlies live in an institution, they might experience problems such as losing control over the place they live in, decreased independence, a decrease in social relationships, leaving things with special meaning to them behind, and having differences in daily routine lifestyles. The most important thing for elderlies is the fear of losing independence. Elderlies who live in institutions for the elderly could experience problems such as depression, loneliness, emotional stress, adaptation difficulties, functional disorder, and a decrease in wellbeing.¹² Studies conducted with elderly people living in homes for the elderly show they liked the environment they lived in but still missed living with their spouse and children in their own houses and places.^{13,14} With the increase in longevity in the world, many countries support aging in place (Gardner, 2008 unpublished data). The purpose of this study is to identify the relationship between ageing in place and successful ageing.

METHODS

Study design

This study, which utilised a descriptive and relational-screening model, was conducted in Family Health Centres in a city centre located in the eastern part of Turkey between September 2018 and February 2019. The target population was 5968 individuals aged 65 and over who lived in the city centre. The participants were 370 elderlies who were selected using the sampling method with a known target population. Those who applied to the health centres between the above-mentioned days, who could communicate sufficiently, who did not have a psychiatric disease, and who accepted to participate in the study were included in the sample.

Data collection

Data were collected through the Socio-Demographic Form, the Ageing in Place Scale, and the Successful Ageing Scale. Data were collected by the researcher through face-to-face interviews conducted with elderlies. Data collection took about 15 to 20 min.

The Socio-Demographic Form

The form prepared by the researchers included nine questions regarding socio-demographic characteristics (age, gender, marital status, place of living, etc.).

The Ageing in Place Scale

This scale was developed by Kalinkara and Kapikiran in 2017 to measure individuals' levels of satisfaction about the environment they live in.¹⁵ The scale is composed of three factors and 15 items rated on a 5-point Likert scale. Higher scores obtained from the scale indicate higher satisfaction levels. Cronbach's alpha value was measured and found as 0.90 for the total scale, 0.85 for the Perceived Social Support sub-scale, 0.84 for the Physical Sufficiency sub-scale, and 0.85 for the Obtainable Social Support sub-scale. The present study found the Cronbach's alpha value as 0.89 for the total scale, 0.89 for the Perceived Social Support sub-scale, 0.69 for the Physical Sufficiency sub-scale, and 0.88 for the Obtainable Social Support sub-scale.

The Successful Ageing Scale

Hazer and Özsungur performed the Turkish reliability and validity of the scale which was developed by

Reker to assess elderlies' successful ageing.^{16,17} The scale has two sub-scales and 10 items rated on a 7-point scale. The scores to be obtained from the scale range between 10 and 70. Higher scores indicate higher successful ageing. Combined reliability coefficients of the Healthy Life-Style and Adaptive Coping factors were measured as 0.83 and 0.92. The Cronbach's alpha value for the total scale was 0.85. Cronbach's alpha values in the present study were 0.93 for the total scale, 0.80 for the Healthy Life-Style sub-scale, and 0.91 for the Adaptive Coping sub-scale.

Data analysis

Data were analysed using SPSS statistical package programming. Analyses included descriptive statistics, Kolmogorov–Smirnov, Mann–Whitney *U*, Kruskal–Wallis, and Spearman correlation tests.

Ethical considerations

Approval was obtained from the Scientific Research Ethics committee of the Agri Ibrahim Cecen University

Table 1 Socio-demographic characteristics of the participating elderlies (*N* = 370)

		<i>n</i>	%
Gender	Female	179	48.4
	Male	191	51.6
Marital status	Married	282	76.2
	Single/widow(er)	88	23.8
Education level	Illiterate	92	24.9
	Literate	76	20.5
	Primary school	61	16.5
	Secondary school	33	8.9
	High school	48	13.0
Income level	University	60	16.2
	Income less than expenses	84	22.7
	Income equal to expenses	188	50.8
	Income more than expenses	98	26.5
People they live with	Lives alone	52	14.1
	Lives with a spouse	212	57.3
	Lives with children	72	19.5
	Lives with spouse and children	29	7.8
	Other (relative etc.)	5	1.4
Who does the house belong to	Own house	292	78.9
	Children's house	68	18.4
	Relatives' house	10	2.7
Presence of a chronic disease	Yes	287	77.6
	No	83	22.4
	$\bar{X} \pm SD$		
Age	71.01 \pm 5.71 (min. 65 – max. 94)		
Duration of living in the same environment	37.85 \pm 13.43 (min. 2 – max. 74)		

and from the institutions where the study was conducted. The participants were provided with the necessary explanations, and verbal consent was obtained from those who wanted to participate in the study.

RESULTS

Of all the elderlies participating in the study, 51.6% were male, 76.2% were married, and 24.9% were illiterate. In addition, 50.8% had income equal to expenses, 57.3% lived with their spouse, 78.9% lived in their own house, and 77.6% had a chronic disease. The average age of the participating elderlies was 71.01 \pm 5.71 years, and they were found to have lived in the same environment for 37.85 \pm 13.43 years on average (Table 1).

The findings showed that the mean score for the Successful Ageing Scale was 54.16 \pm 11.32 with scores ranging from 11 to 70. Mean scores were 16.65 \pm 3.39 for the Healthy Life-Style sub-scale and 37.51 \pm 8.35 for the Adaptive Coping sub-scale. Mean score for the Ageing in Place Scale was 54.24 \pm 12.88 with scores ranging from 18 to 103; mean scores were 22.17 \pm 5.52 for the Perceived Social Support sub-scale, 18.56 \pm 5.59 for the Physical Sufficiency sub-scale, and 13.51 \pm 3.94 for the Obtainable Social Support sub-scale (Table 2).

The mean score for the Successful Ageing Scale was significantly higher in those who were married, who graduated from university, who had income more than expenses, who lived with their spouse, and who owned the house they lived in ($P < 0.01$). No significant differences were found between the groups in terms of gender and the presence of chronic diseases (Table 3).

The mean score for the Ageing in Place Scale was significantly higher in males, in those who were married, who graduated from secondary school, who had income more than expenses, who lived with their spouse, and who did not have a chronic disease ($P < 0.05$). No significant differences were found between the groups in terms of the factor about the person who owned the house (Table 4).

While there was a positive, significant relationship between the Successful Ageing Scale total score, the Ageing in Place Scale total score and living in the same environment, there was a negative, significant relationship between age and the Successful Ageing Scale total score ($P < 0.05$) (Table 5).

Table 2 Mean scores for elderlies' Successful Ageing Scale and Ageing in Place Scale ($N = 370$)

Scale	$\bar{X} \pm SD$	Min.	Max.
Successful Ageing Scale	54.16 ± 11.32	11	70
Healthy Life-Style sub-scale	16.65 ± 3.39	3	21
Adaptive Coping sub-scale	37.51 ± 8.35	8	49
Ageing in Place Scale	54.24 ± 12.63	18	75
Perceived Social Support sub-scale	22.17 ± 5.52	7	30
Physical Sufficiency sub-scale	18.42 ± 5.52	5	25
Obtainable Social Support sub-scale	13.51 ± 3.94	4	20

DISCUSSION

Findings of the present study which aimed to identify the relationship between ageing in place and successful ageing were discussed in line with the related literature.

The mean score for the Successful Ageing Scale was 54.16 ± 11.32 in this study. There is no cut-off point of the scale. The highest score to be obtained from the scale is 70, and successful ageing increases with the increase in the score, which indicates an above-average level of successful ageing for the elderlies participating in this study. The studies that investigated the successful ageing of individuals in our country are very limited in number.^{16,18} The participants' general mean score for the Successful Ageing Scale was reported to be 53.67, and the closer

general mean scores to the maximum score were reported to indicate the sensitivity of elderlies toward successful ageing.¹⁸ A study conducted by Kyung (2013) with elderly men in Korea found that the individuals' reported successful ageing was above average, and a strong, positive relationship was found between self-respect and self-sufficiency level and successful ageing.¹⁹

The findings of the present study showed that the Successful Ageing Scale mean score was significantly higher in those who were married, who graduated from university, who had income more than expenses, who lived with their spouse, and who owned the house they lived in; presence of chronic disease and gender were reported to have no effects. A study conducted with elderly people aged 60 and over in Indonesia reported that successful ageing decreased in elderly people who had a low financial level.²⁰ Elderlies who had high health literacy were found to have higher healthy ageing success. Hence, except for the intercultural differences, it could be said that societies with higher health literacy levels had a better level in terms of successful ageing; in other words, education might have a positive effect on successful ageing.²¹ Due to factors such as making daily life activities easier, strengthening social acceptance and relationships, and

Table 3 Distribution of elderlies' Successful Ageing Scale scores according to their socio-demographic characteristics ($N = 370$)

		n	$\bar{X} \pm SD$	Test value	P
Gender	Female	179	53.60 ± 11.24	$U = 15\,933.5$	0.258
	Male	191	54.69 ± 11.39		
Marital status	Married	282	55.12 ± 10.66	$U = 10\,083.0$	0.008
	Single/widow(er)	88	51.10 ± 12.78		
Education level	Illiterate	92	48.89 ± 11.72	$KW = 98.654$	0.000
	Literate	76	52.08 ± 10.39		
	Primary school	61	51.16 ± 11.28		
	Secondary school	33	58.09 ± 8.57		
	High school	48	58.33 ± 11.26		
Income level	University	60	62.43 ± 5.59	$KW = 21.456$	0.000
	Income less than expenses	84	54.76 ± 9.32		
	Income equal to expenses	188	52.23 ± 11.91		
	Income more than expenses	98	57.36 ± 11.03		
People they live with	Lives alone	52	54.63 ± 10.93	$KW = 19.002$	0.001
	Lives with a spouse	212	55.89 ± 10.59		
	Lives with children	72	50.19 ± 12.26		
	Lives with spouse and children	29	51.00 ± 12.31		
	Other (relative etc.)	5	51.40 ± 10.85		
Who does the house belong to	Own house	292	55.21 ± 11.04	$KW = 16.331$	0.000
	Children's house	68	49.90 ± 11.94		
	Relatives' house	10	52.60 ± 8.46		
Presence of a chronic disease	Yes	287	53.58 ± 11.53	$U = 10\,325.5$	0.065
	No	83	56.17 ± 10.36		

Table 4 Distribution of elderlies' Ageing in Place Scale scores according to their socio-demographic characteristics ($N = 370$)

		<i>n</i>	$\bar{X} \pm SD$	Test value	<i>P</i>
Gender	Female	179	53.14 ± 11.98	$U = 14\,480.0$	0.011
	Male	191	55.27 ± 13.63		
Marital status	Married	282	55.15 ± 12.89	$U = 9710.5$	0.002
	Single/widow(er)	88	51.31 ± 12.49		
Education level	Illiterate	92	49.70 ± 14.77	$KW = 25.428$	0.000
	Literate	76	55.87 ± 11.47		
	Primary school	61	54.23 ± 9.64		
	Secondary school	33	57.24 ± 12.85		
	High School	48	56.13 ± 12.89		
Income level	University	60	55.98 ± 13.07	$KW = 19.904$	0.000
	Income less than expenses	84	50.55 ± 15.23		
	Income equal to expenses	188	53.98 ± 11.78		
People they live with	Income more than expenses	98	57.90 ± 11.84	$KW = 15.197$	0.004
	Lives alone	52	53.21 ± 12.48		
	Lives with a spouse	212	56.04 ± 12.41		
	Lives with children	72	50.07 ± 13.55		
	Lives with spouse and children	29	53.69 ± 12.89		
Who does the house belong to	Other (relative etc.)	5	51.80 ± 16.35	$KW = 5.543$	0.063
	Own house	292	54.83 ± 12.83		
	Children's house	68	51.34 ± 12.95		
	Relatives' house	10	56.80 ± 12.32		
Presence of a chronic disease	Yes	287	53.53 ± 13.35	$U = 10\,095.5$	0.034
	No	83	56.69 ± 10.83		

decreasing feelings of loneliness, marriage and living with a spouse could be considered as the factors that have positive effects on successful ageing. Living in a house owned by them might have effects on the results because it is a factor that affects the frequency of changing the environment they live in, namely the probability of living in the environment longer. Different results reported in another study indicated that the majority of individuals aged between 65 and 90 who had a chronic disease accepted that they were ageing successfully and that no relationships were found between the Successful Ageing Scale and gender, income level, education, and place of residence.²² This result is considered to have been affected by

the differences in the way cultural structure and chronic disease processes are managed by the health system.

The present study found elderlies' Ageing in Place Scale mean score as 54.24 ± 12.88 . The highest score to be obtained from the scale was 75. Higher scores indicate a higher level of satisfaction about the place one lives in. In this case, elderlies' ageing in place satisfaction levels were above average. A study that utilised in-depth, semi-structured interviews conducted with 46 individuals and family members in Pekin reported that the majority of elderlies were happy about their life in the nursing home, and some of them reportedly felt isolated and depressed after they changed places.²³

Table 5 The relationship between age and total scores of the scales

		Successful Ageing Scale total score	Ageing in Place Scale total score	Duration of living in the same environment	Age
Successful Ageing Scale total score	<i>r</i>	1			
	<i>P</i>				
Ageing in Place Scale total score	<i>r</i>	0.315	1		
	<i>P</i>	0.000			
Duration of living in the same environment	<i>r</i>	0.183	0.108	1	
	<i>P</i>	0.013	0.148		
Age	<i>r</i>	-0.103	-0.057	0.108	1
	<i>P</i>	0.047	0.275	0.148	

A study conducted with individuals aged between 80 and 90 in New Zealand reported that the majority of elderlies lived in their own houses, planned to do so in the future, most of them felt positive about their houses, and had strong connections with their neighbours and relatives. The same study also highlighted that ageing in place is of great importance in terms of both reality and longing.²⁴ A study conducted in five different centres in Europe which investigated the relationship between ageing in place and successful ageing showed that elderlies perceived successful ageing as the health created with individual effort and appears with ageing and as an active success that is formed with the support of social connections despite the decreases in financial and social life.²⁵ A study that sought answers to the question 'Where is the ideal place for ageing?' among individuals aged between 56 and 90 reported that ageing in place within human autonomy and independence associated with the feeling of identity was seen as an advantage in terms of the safety and benefits of a familiar environment.²⁶

The present study found the Ageing in Place Scale mean score to be higher in men, in those who were married, who graduated from secondary school, who had income more than expenses, who lived with their spouse, and who did not have a chronic disease. The higher satisfaction level of elderlies about the place they lived in might be associated with the fact that elderlies with high-income levels lived in better physical and social conditions and these elderlies could benefit from many opportunities. As the presence of chronic disease might cause changes in the place of elderly people in the treatment process, it might have negative effects on ageing in place. Elderlies living with their spouses have more social support; in other words, a spouse is an important social support for them and as social support is also an important component of ageing in place, the results are in line with the literature.¹⁵

The present study found a positive, statistically significant relationship between the Successful Ageing Scale total score and Ageing in Place Scale total score and the duration of living in the same environment. Elderlies' ageing in place scores increased as their successful ageing score and living in the same environment for a long time score increased. In other words, it is possible to say that the ageing process is more successful when elderlies live in a familiar

environment they have been accustomed to for a long time and are satisfied with this environment. Therefore, as much as possible, it is recommended to keep elderlies in the places they live and to strengthen their social support networks.

Another important finding of this study is the effect of age on successful ageing. There was a decrease in individuals' successful ageing scores with an increase in age. The successful ageing process is considered to be affected negatively by the physical and psychosocial losses experienced with advanced age.

The literature involves no studies that investigated the relationship between successful ageing and ageing in place; this study is thus believed to make important contributions to the literature.

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