

## The Relationship Between Quality of Life and Successful Aging in Elderly Individuals

Yaşlı Bireylerde Başarılı Yaşlanmayla Yaşam Kalitesi Arasındaki İlişki

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### ABSTRACT

Considered the social, cultural, legal, and ethical dimensions of aging, successful aging is an important factor in protecting, improving, and maintaining the health of elderly individuals in society and the continuity of their quality of life. We need a better understanding of how quality of life and successful aging are related and what characteristics affect them. This study aimed to examine the relationship between quality of life and successful aging in elderly individuals. Elderly people aged 65 years and over made up the population of this descriptive study who were registered at the Community Health Center of the Network. The study was completed with the participation of 650 individuals aged 65 or above. According to the mean total scale scores of older people, there was a statistically significant, moderate and positive relationship between successful ageing and quality of life ( $p<0.05$ ). Successful aging levels explained 33% of the total variance in quality of life. To increase successful aging and quality of life in elderly individuals, it is important to implement strategic public health interventions that can protect the health and well-being of these individuals.

**Keywords:** Successful aging, elderly individuals, quality of life.

### ÖZ

Yaşlılık süreci toplumsal, kültürel, yasal ve etik boyutlarıyla ele alındığında başarılı yaşlanma; toplumda yaşlı bireylerin sağlığının korunması, geliştirilmesi, sürdürülmesi ve yaşam kalitelerinin sürekliliği açısından önemli bir faktördür. Yaşam kalitesi ve başarılı yaşlanmanın nasıl ilişkili olduğunu ve hangi özelliklerin bunları etkilediğini daha iyi anlamamız gerekiyor. Bu çalışmada yaşlı bireylerde yaşam kalitesi ile başarılı yaşlanma arasındaki ilişkiyi incelemek amaçlanmıştır. Tanımlayıcı türde tasarlanan bu çalışmada hedef nüfusu, Ağın Toplum Sağlığı merkezinde kayıtlı olan 65 yaş ve üzeri yaşlı bireyler oluşturmaktadır. Araştırma, 65 yaş ve üzeri 650 bireyin katılımıyla tamamlanmıştır. Araştırmada yaşlı bireylerin başarılı yaşlanma ve yaşam kalitesi ölçek toplam puan ortalamasına göre başarılı yaşlanma ve yaşam kalitesi düzeylerinin yüksek düzeyde ve yaşlı bireylerin başarılı yaşlanma ile yaşam kalitesi arasında istatistiksel anlamda pozitif yönde anlamlı bir ilişki görülmüştür ( $p<0.05$ ). Başarılı yaşlanma yaşam kalitesini %33 oranında istatistiksel olarak açıklamaktadır. Yaşlı bireylerin başarılı yaşlanma ve yaşam kalitesi düzeylerini artırmak için bu bireylerin sağlığını ve refahını koruyabilecek stratejik halk sağlığı müdahalelerin yapılması önem taşımaktadır.

**Anahtar Kelimeler:** Başarılı yaşlanma, yaşam kalitesi, yaşlı bireyler

*This study, approval was taken on 30.11.2021 with the decision number 21 from Kafkas University Health Sciences Non-Invasive Clinical Research Ethics Committee.*

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## INTRODUCTION

The rate of elderly individuals in the entire population of Turkey was determined as 8.2% in 2015 and 9.5% in 2020.<sup>1</sup> This increasing trend is estimated to continue, and the elderly proportion of the world's population will reach 11.7% in 2030, 15.9% in 2050, and 22.6% in 2100.<sup>2</sup> Aging is a process that occurs as a result of the impact of time and affects the individual physiologically, biologically, and psychologically, which leads to a prominent loss of functions. Along with anatomical and physiological changes, elderly individuals experience limitations in terms of physical strength and movement.<sup>3</sup> Stress, a deteriorating immune system, and inadaptability to changing conditions that develop as a result of aging lead these individuals to get ill frequently.<sup>4</sup> For elderly individuals to actively contribute to both production and the economy in society, it is necessary to minimize their levels of dependence, help them become autonomous individuals and identify and eliminate the obstacles and problems in their lives.<sup>5</sup> Considering the social, cultural, legal, and ethical aspects of aging, successful aging is an essential element of protecting, improving, and maintaining the healthy status of elderly individuals in society and the permanence of their quality of life.<sup>6</sup> Successful aging has been defined as the active participation of elderly individuals in healthy life in their old age, their maintenance of high levels of physical and cognitive functions throughout their lives, their avoidance of diseases and injuries, their self-sufficiency, the minimization of their obstacles and dependencies, and the continuation of their lives in a safe environment.<sup>7,8</sup> Successful aging helps elderly individuals lead a quality and respectable life and live independently.<sup>9</sup> In a study carried out in Norway on successful ageing, it was reported that successful ageing was related to all lifestyle factors, and that having a good quality of life was related in a positive way to successful ageing.<sup>10</sup> Different studies have suggested that physical, psychological, and social losses observed at old age negatively affect successful aging.<sup>3,4,11</sup>

Individuals who are considered to age successfully display lower rates of early deaths, fewer obstructions due to non-infectious chronic diseases, and increased participation in activities, and a decrease in the cost of medical treatment and care services is observed.<sup>12</sup>

Quality of life is defined as health and happiness felt by the individual related to perceived life. Quality of life is highly important in planning the care of elderly individuals and regulating their health.<sup>13</sup> Good quality of life involves making the individual feel pleased by addressing their life with its various dimensions and implementing the actions for their needs subjectively.<sup>14</sup> For the elderly population, a good level of quality of life and successful aging can offer a solution to the basic burdens of aging on healthcare service systems, the workforce, and financial security.<sup>15</sup> Nurses have an important role to play in the health care of elderly individuals, who represent an increasing proportion of the general population. In this context, research into successful ageing and quality of life in older people is very important in order to provide more effective health systems to respond to the demands of an ageing population. It is a valuable endeavour to identify the association between quality of life and successful ageing in elderly people and to understand the effective factors. Identifying this relationship will enable researchers to assess the current situation with regard to the quality of life of elderly people and to identify needs in this area. In the relevant literature, the number of studies conducted worldwide on the relationship between quality of life and successful ageing in elderly people is limited. In a study conducted in Turkey that assessed successful ageing, quality of life and daily activities, quality of life and successful ageing were found to be positively related.<sup>16</sup> A study conducted with older people in South Korea found a important relationship between quality of life and successful ageing.<sup>17</sup> In this respect, this study, designed to investigate the relationship between older people's quality of

life and their level of successful ageing, will contribute to literature.

## MATERIALS AND METHODS

### Design

A descriptive and correlational method was used in this study.

### Time and location

This study was conducted at the Ağın Community Health Centre in Elazığ Province, Turkey. It took place between December 2021 and June 2022.

### Population and sample

G\*Power 3.1.9.2 (Faul, F., Erdfelder, et al. (2009)) was used to calculate the sample size required to conduct the study at the 95% confidence level. According to the results of the analysis, the minimum sample size required was calculated to be 528, based on a theoretical power of 0.90, an  $\alpha$  value of 0.05 and a standardised small effect size of 0.02. A total of 650 people aged 65 years or older completed the study. The study site was selected based on the above-average proportion of elderly individuals in the Ağın district of Elazığ and the accessibility of the population to the researchers.

### Inclusion criteria

Being open to communication and cooperation.

Agreeing to participate in the study and being at least 65 years old.

### Exclusion criteria

Having a severe psychiatric problem

Having a communication problem.

### Data collection instruments

The data collection process included a 'Descriptive Characteristics Form', the 'Successful Aging Scale' (SAS), and the 'World Health Organization Quality of Life Instrument – Elderly Individuals Module (WHOQOL-OLD).

**Descriptive characteristics form:** The form, which was prepared by the authors based on the review of the relevant literature, included 14 questions on different characteristics such as income status, employment status, gender, age, marital status, levels of education, frequency of contacting children, family, and relatives, chronic disease status, levels of interaction with one's environment, views about old age, having a child living nearby, support from services, health assessment and the impact of age on mood.

**Successful aging scale (SAS):** Developed by Reker in 2009, the SAS consists of statements about elderly individuals self-evaluation of old age and how they feel about it.<sup>18</sup> The scale consists of 10 items in two dimensions: Healthy lifestyle and Coping with problems. The range of total scores for the 7-point Likert-type instrument is between 10 and 70. The validity and reliability testing study of the scale in Turkey was conducted by Hazer and Ozsungur, and the Cronbach's alpha coefficient of internal consistency for the SAS was reported to be 0.85.<sup>11</sup> The Cronbach's alpha coefficient for the scale in our study was 0.80.

**World Health Organization Quality of Life Instrument – Elderly Individuals Module (WHOQOL-OLD):** The scale, the reliability and validity of which were tested in Turkish by Eser et al., consists of 24 Likert-type items and six dimensions, namely social participation, intimacy, past, present and future activities, sensory abilities, autonomy and death and dying. The 5-point Likert-type scale has a range of scores from 24 to 120.<sup>19</sup> The Cronbach's alpha internal consistency coefficient for the scale was reported to be 0.85. In this study this coefficient was found to be 0.75.

**Data collection method**

The data to be analyzed in the study were obtained by one of the authors in in-person interviews in a room which allowed privacy for the participants in compliance with the rules necessitated by the then-ongoing COVID-19 pandemic in a Community Health Center. The researcher read the questions and statements on the data collection forms for the participants, and the responses of the participants were recorded on the interview form. Each participant spent approximately 20-25 minutes administering the data collection tools.

**Data analysis and evaluation**

Descriptive statistics (frequency, percentage, mean, standard deviation, and median) were calculated. Normal distribution assumptions were checked using the Shapiro-Wilk test. Pearson’s correlation test was

applied to examine the relationships between normally distributed continuous measurements. Linear regression analysis was utilized to mathematically model the relationship between a dependent continuous variable and independent variables. The analyses were performed using the IBM SPSS 25 program. The threshold for statistical significance was accepted as  $p < 0.05$ .

**Ethical principles of the study**

Before performing this study, approval was taken on 30.11.2021 with the decision number 21 from Kafkas University Health Sciences Non-Invasive Clinical Research Ethics Committee.

**Limitation of the study**

The limitations of this study included the fact that it was carried out at a single center.

**RESULTS AND DISCUSSION**

The distribution of some characteristics of the individuals who participated in the study is presented in Table 1.

**Table 1. Distribution of the Elderly Individuals According to Their Descriptive Characteristics (N=650)**

Descriptive Characteristics	n	%
<b>Mean Age</b>	72.94±7.06 years (min-max=65-96)	
<b>Gender</b>		
Male	399	61.4
Female	251	38.6
<b>Marital Status</b>		
Married	519	79.8
Single	131	20.2
<b>Education Level</b>		
Literate	172	26.5
Primary School	260	40.0
Secondary School	160	24.6
University	58	8.9
<b>Perceived Income Status</b>		
Poor	146	22.5
Moderate	408	62.8
Good	96	14.8
<b>Employment Status</b>		
I worked before, I am retired now.	289	44.5
I worked before, I am not retired.	202	31.1
I never worked before.	159	24.5

**Table 1. Distribution of the Elderly Individuals According to Their Descriptive Characteristics (Devamı)**

<b>Contact</b>	34	5.2
No contact	123	18.9
Once or twice a year	177	27.2
Once or twice a month	186	28.6
Once or twice a week	130	20.0
Everyday		
<b>Chronic Disease</b>	112	17.2
None	221	34.0
1 Disease	150	23.1
2 Diseases	97	14.9
3 Diseases	70	10.8
3 and Above Diseases		
<b>Interaction with the Environment</b>	129	19.8
Very Good	260	40.0
Good	206	31.7
Moderate	55	8.5
Poor		
<b>Evaluation of Old Age</b>	201	30.9
A Bad Situation	82	12.6
Uselessness	107	16.5
Discomfort	260	40.0
A Part of Life		
<b>Child in Close Vicinity</b>	447	68.8
Yes	203	31.2
No		
<b>Service Support</b>	178	
Yes	472	27.4
No		72.6
<b>Evaluation of Health</b>	30	4.6
Very Good	150	23.1
Good	259	39.8
Moderate	155	23.8
Poor	56	8.6
Very Poor		
<b>Mood</b>	56	8.6
Positive	344	52.9
Negative	141	21.7
I am undecided	109	16.8
I am not affected		

The distribution of some characteristics of the individuals who participated in the study is presented in Table 1. Accordingly, the mean age of the participants was  $72.94 \pm 7.06$ , 61.4% were male, 79.8% were married, 40% had primary school education, 62.8% had a medium level of income, 44.5% worked in a job and got retired, 28.6% contacted with their children, families, and relatives once or twice

a week, and 34% had a chronic disease. It was also found that 40% of the participants had a good level of interaction with their environment, 40% evaluated old age as a part of life, 68.8% had a child living in close vicinity, 72.6% did not receive service support, 39.8% evaluated their health at a medium level, and 52.9% stated that old age negatively affected their mood (Table 1).

**Table 2. Scores Obtained from Successful Aging Scale and Mean Scores (N=650)**

SAS	Min-Max	Mean (SD)
Healthy Lifestyle	8-21	15.45±4.41
Coping with Problems	25-49	35.20±9.62
SAS Total	33-70	50.65±13.48

As seen in Table 2, SAS total mean score was found to be 50.65±13.48.

**Table 3. Scores Obtained from WHOQOL-OLD Subdimensions and Total Scale and Mean Scores (N=650)**

WHOQOL-OLD	Min-Max	Mean (SD)
Sensory Abilities	4-19	12.04±2.48
Autonomy	4-20	12.00±3.14
Past, Present, and Future Activities	4-20	11.31±3.29
Social Participation	4-20	11.22±3.61
Death and Dying	4-20	11.73±3.61
Intimacy	4-20	12.44±3.26
WHOQOL-OLDTotal	42-103	70.76±10.53

As presented in Table 3, WHOQOL-OLD total scale mean score was found as 70.76±10.53.

**Table 4. Correlation Analysis Between WHOQOL-OLD and SAS**

SCALES	WHOQOL-OLD						TOTAL		
	Sensory Abilities	Autonomy	Past, Present, and Future Activities	Social Participation	Death and Dying	Intimacy			
SAS	Healthy Lifestyle	R	.453**	.210**	.685**	.211**	.363**	.607	.559**
		p	.000	.000	.000	.000	.000	.000	.000
	Coping with Problems	R	.443**	.561**	.699**	.676**	.379**	.631**	.578**
		p	.000	.000	.000	.000	.000	.000	.000
	TOTAL	R	.454**	.565**	.707**	.682**	.380**	.635**	.582**
		p	.000	.000	.000	.000	.000	.000	.000

The scales used in the study had acceptable values of internal consistency. According to the correlation analysis performed between WHOQOL-OLD subdimensions and total scale mean scores and SAS subdimensions and total scale mean scores, there was a statistically significant, positive, and moderate relationship between the WHOQOL-OLD subdimensions of social

participation, sensory abilities, death and dying, autonomy, past, present, and future activities, intimacy, and overall scale score and SAS subdimensions of healthy lifestyle, coping with problems and total scale score ( $p < 0.05$ ). In line with these findings, there was an increase in the level of successful ageing as the level of quality of life of the participants increased (Tablo 4).

**Table 5. Explanation of the Relationship between Quality of Life and Successful Aging Through Regression Analysis**

WHOQOL-OLD								
SAS	Regression			Correlation				
	R	R <sup>2</sup>	β	t	p	F	r	p
	0.58	0.33	.582	18.2	<b>0.01</b>	331.	0.55	<b>0.000</b>

A positive, moderate, and statistically significant correlation was determined between successful aging and quality of life ( $p < 0.05$ ). Accordingly, successful aging statistically explained quality of life by 33% (Table 5).

Successful aging has come to the agenda in recent years as a care approach that is gaining importance and preferred by elderly individuals. The relevant literature presents an inadequate number of studies on the subject in question here. The results of this study, conducted to determine the relationship between quality of life and successful ageing in older people, are discussed here along with the results of other studies in the literature. The mean SAS score of the participants of this study was  $50.65 \pm 13.48$ . When SAS mean score is considered, it can be stated that the elderly individuals' successful aging levels are above the average. In this case, it can be argued that the participants have successfully aged while continuing their lives. In a study conducted by Yilmaz on the parameters related to successful aging in the elderly population, an above-average mean SAS score was obtained ( $50.32 \pm 17.42$ ).<sup>16</sup> In the study conducted by Kars Fertelli on the perceptions of elderly individuals presenting to the hospital on successful aging, SAS mean score was determined as ( $54.34 \pm 11.55$ ).<sup>20</sup> In another study conducted by Yalcinoz Baysal et al. on elderly individuals, it was found that successful aging was at a good level ( $54.16 \pm 11.32$ ).<sup>21</sup> In the study by Kim in which the relationship of successful aging was investigated, it was determined that various factors contributed to elderly individuals' levels of successful aging, and that they had a high level of successful aging.<sup>22</sup> Hence, the findings obtained in other studies that investigated the successful aging levels of elderly individuals were in agreement with the results reached in our study.

The mean successful aging score of the participants of this study was determined to be above the average ( $70.76 \pm 10.53$ ). Considering the WHOQOL-OLD total scale mean score, the elderly individuals' level of quality of life was found to be high. In a study conducted on quality of life and satisfaction with life in the elderly population by Boylu and Gunay, the elderly individuals' level of quality of life was determined to be high ( $80.1 \pm 11.3$ ).<sup>23</sup> In the study they conducted on elderly individuals in rural areas, Garbaccio et al. reported the elderly quality of life levels of elderly individuals to be above average.<sup>24</sup> Similarly, in their study on the quality of life of elderly individuals, Brandao et al. found the level of quality of life in elderly individuals to be high.<sup>25</sup> In Brazil, in a study where the differences in quality of life levels in elderly individuals were investigated, the researchers reported good levels of quality of life among their participants.<sup>26</sup> In this context, it was determined that the findings obtained from studies that investigated the quality of life of elderly individuals supported the findings obtained in the present study.

The results of our study showed a positive, moderate and statistically significant relationship between the sub-dimensions of WHOQOL-OLD and the mean score of the total scale, and between the sub-dimensions of SAS and the mean score of the total scale, in older people ( $p < 0.05$ ). Therefore, it can be claimed that as the quality of life levels of the participants rose, their successful aging levels increased as well. The quality of life of elderly individuals has a significant role in their autonomous aging.<sup>27</sup> Successful aging involves many dimensions of the health, including the physical, psychological, and social health aspects of the elderly person.<sup>28</sup> A limited number of studies examining the relationship between successful ageing and quality of life exist in the relevant literature.

Choi et al. determined a positive correlation between the quality of life of elderly individuals and their successful aging rates.<sup>17</sup> A statistically significant relationship between successful ageing and quality of life was reported by Fredricksen Goldsen et al.<sup>29</sup> The importance of improving successful ageing and the quality of life of older people is underlined by the continuing growth of the elderly population.<sup>6,30</sup> Increasing quality of life and the number of healthy years is among the top priorities of old age policies. In order to have healthier, active, and productive elderly individuals in society, it is important to create sustainable policies for the elderly, to develop policies for employing elderly individuals, and to ensure their health and social security. A better understanding of successful ageing and an increase in the number of quality of life studies of older people in public health and geriatrics can encourage research in this area. Besides, it can help develop preventive and therapeutic strategies.

#### CONCLUSION AND RECOMMENDATIONS

The following results were obtained in this study;

\* The elderly individuals had high levels of successful aging according to their total SAS scores,

\* The elderly individuals had high quality of life levels according to their total WHOQOL-OLD scores.

\* A statistically significant and positive relationship was found between successful ageing and quality of life in older people.

It can be recommended in accordance with these results that:

\* In order to enhance elderly individuals' levels of successful aging and quality of life, strategic public health interventions that will protect these individuals' health and welfare should be made,

\* The required public health interventions that will support beliefs of elderly individuals regarding successful aging should be created,

\* Appropriate policies and programs should be developed in order to address the social impact on decision making and to provide elderly individuals with better health and quality of life, and to support them not only in clinical environments but also in all areas of their personal lives,

\*Nurses that provide training and care to elderly individuals should participate in in-service training programs that will support these individuals in terms of successful aging,

\* Future studies should be conducted with experimental and control groups so as to represent a wider population,

#### Implications for nursing practice

Successful ageing is defined by social, psychological, physical and cultural factors.<sup>22</sup> So, the living conditions of the individual will affect successful ageing. This study found a statistically significant positive relationship between successful ageing and quality of life. It is important to support nurses, who play a key role in caring for and supporting older people, should develop the required nursing and nursing policies that contribute to the successful aging levels of elderly individuals.

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