Megaron, Vol. 20, No. 1, pp. 119–132, March 2025

Megaron
https://megaron.yildiz.edu.tr - https://megaronjournal.com
DOI: https://doi.org/10.14744/megaron.2025.63308

Article

Comparative evaluation of public space activities of older individuals in terms of gender and settlement typology: Case of Sinop (Türkiye)

Neşe KÖSE GÖRGÜLÜ[1*], Nilgün ÇOLPAN ERKAN[2]

[1]*Istanbul Metropolitan Municipality, Istanbul, Türkiye*
[2]*Yildiz Technical University, Istanbul, Türkiye*

ARTICLE INFO

Article history
Received: 03 June 2024
Revised: 14 March 2025
Accepted: 16 March 2025

Key words:
Active aging; urban and rural aging; public space activities; gender; aging.

ABSTRACT

This study examines the active aging potential of the elderly population in Sinop, the Turkish province with the highest proportion of elderly residents (TURKSTAT, 2024a), under the pandemic conditions of 2020. Given the intrinsic relationship between activity and environment, the research explores how the daily activities of the elderly vary by rural-urban settlement type and gender within the framework of the Person-Environment-Activity Model. By analyzing these factors, the study provides planning recommendations for active aging at both local and national levels.

Aging and activity remain underexplored topics in Türkiye. This study aims to contribute to aging research in the country while engaging with global discussions on activity theory.

The research involved structured interviews with 209 rural and 323 urban elderly individuals, with data analyzed using SPSS. Elderly individuals in urban areas engage more in shopping (46.6%) and exercise (38.3%), while those in rural areas participate more in work (22%), gardening/farming (10.1%), and religious activities (3.9%). Gender-based analysis revealed that men participate more frequently in public sports and recreational activities (41.9%), while women are more engaged in garden/farm maintenance (14.5%) and artistic/cultural activities (4.5%).

Enhancing societal awareness of active aging and improving the quality and accessibility of physical environments could foster greater participation in diverse activities among the elderly. This would promote well-being and social integration.

Cite this article as: Köse Görgülü, N., Çolpan Erkan, N. (2025). Comparative evaluation of public space activities of older individuals in terms of gender and settlement typology: Case of Sinop (Türkiye). Megaron, 20(1), 119-132.

INTRODUCTION

Today, in parallel with technological advancements and developments in geriatric science, improvements in quality of life have led to increased life expectancy from birth and, consequently, a proportional rise in the elderly population within the overall population average. The impact of this shifting demographic structure on the physical form of settlements remains a subject that has not yet been adequately addressed. The starting point of this research is to identify how the daily life activities of the elderly are shaped by space and gender, in order to ensure that this

***Corresponding author**
*E-mail adres: nesekose@gmail.com

growing segment of the population can age in a more livable environment in the future. Based on these findings, the study aims to highlight what can be done in urban planning and urban design to support active aging.

Aging is a significant and contemporary issue, increasingly affecting many disciplines worldwide, yet it remains a phenomenon without a definitive definition. When reviewing approaches to aging, they are generally categorized into three groups: biological aging theories (Semsei, 2000), social aging theories (Bengston et al., 1997; Marshall, 1996), and psychological aging theories (Özcan, 2019). Among these, Havighurst's Activity Theory (Havighurst, 1961) stands as a key component within environmental gerontology studies. Although the theory has faced various criticisms (Victor, 2005; Lemon, 1972; Tufan, 2001), it remains a psycho-social theory that presents positive assertions about aging and continues to evolve. In this context, one of the secondary objectives of this study is to contribute to these global discussions and explore how elderly activities vary based on space, culture, society, and personal characteristics.

Aging is a process characterized by changes in functional capacity and abilities, which sometimes bring elderly individuals to the threshold of disability. A decline in functional capacity restricts their activities and can lead to dependence on others. Therefore, this study aims to contribute to activity theory research by assessing the functional capacities of the elderly through their daily life activities.

Current demographic data and projections regarding the elderly population indicate that older adults are rapidly becoming an increasingly large segment of society. Projections suggest that this growth will vary across different countries and regions in the future (see Figure 1).

In developing countries like Türkiye, where aging is occurring at a rate four times faster than in developed nations, an aging population is expected to emerge before achieving sufficient economic welfare (Yakar, 2014). Therefore, the adaptation between the elderly and their living environments must be addressed accordingly, and various physical, economic, and social infrastructures need to be established to support this transition. In Türkiye, the fact that the proportion of elderly women is higher than that of elderly men (see Figure 3) introduces another critical issue, referred to as the "feminization of aging."

When examining the aging rate by settlement type, one of the study's key topics, it is predicted that rural aging will surpass urban aging in developing and underdeveloped regions worldwide (UN, 2018). In Türkiye, due to various economic factors, including the migration of the younger population to urban centers and declining fertility rates (Öztürk, 2015), the rate of rural aging has shown a rising trend, particularly over the past 15 years (see Figure 3).

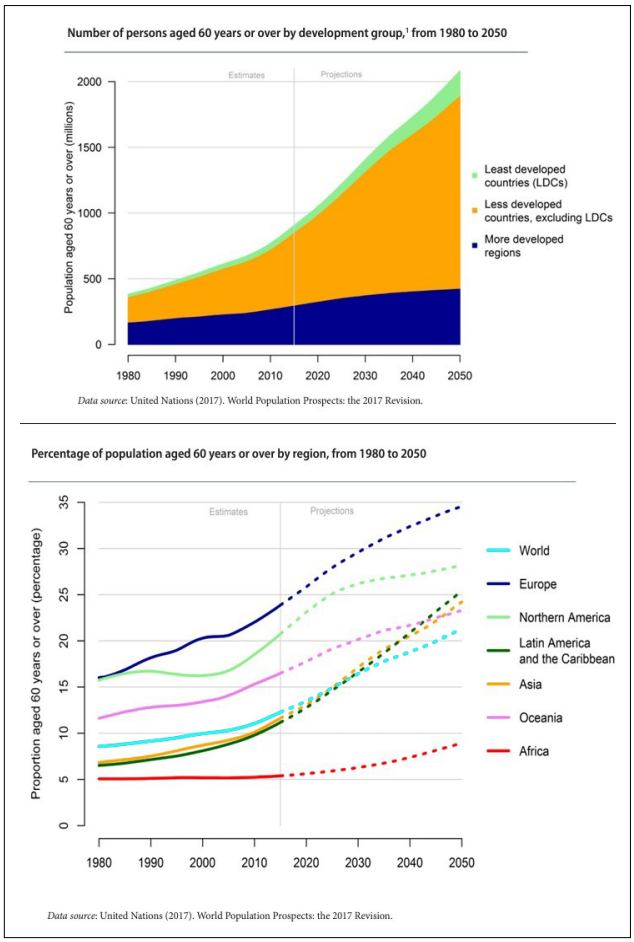

Figure 1. Population aged 60+ by development regions and continents, 1980-2050 (UN, 2017).

To draw attention to issues related to aging and reduce potential future problems that the elderly may face by strengthening the relationship between the elderly and their environment, a study within the framework of active aging was conducted. The study area was selected using the location quotient method, based on elderly concentration maps from 2012, which were then overlaid with the elderly population density map from 2020 (see Figure 4 and Figure 5). Accordingly, the province of Sinop stands out as the settlement with the highest values in both the elderly concentration map and the current elderly population density map.

To explain the conceptual connections between aging, activity, space, and gender, the theoretical background of the study has been outlined. This foundation was established by integrating key concepts from aging theories, environmental gerontology, and the Person-Environment-Activity Model, providing a comprehensive framework for understanding how the daily activities of the elderly are shaped by both their environment and gender.

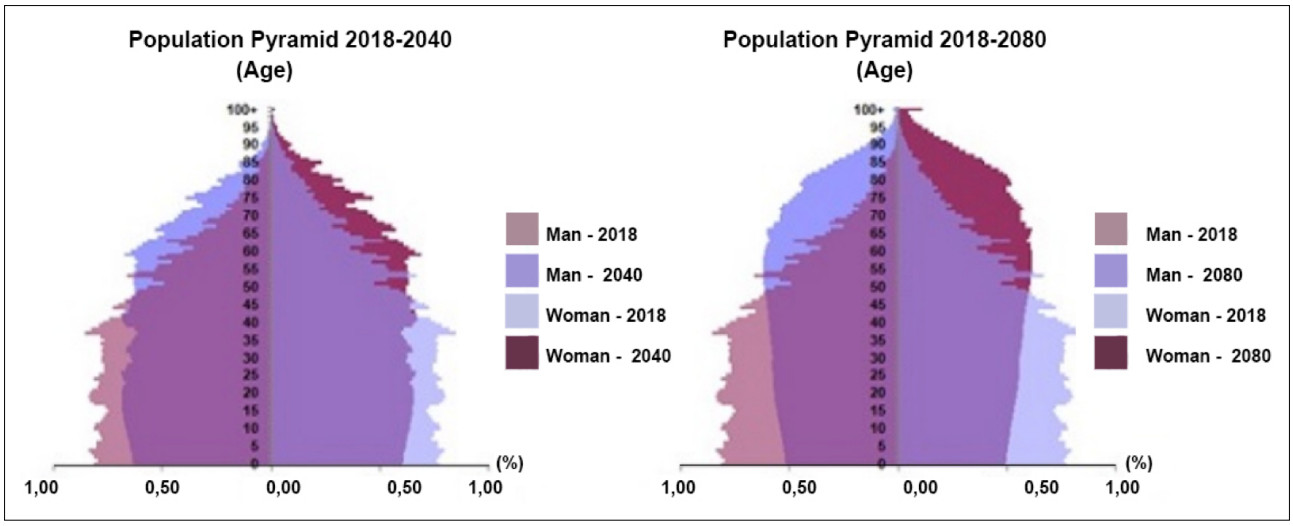

Figure 2. Population projection of Türkiye for the years 2018-2080 (TURKSTAT, 2018).

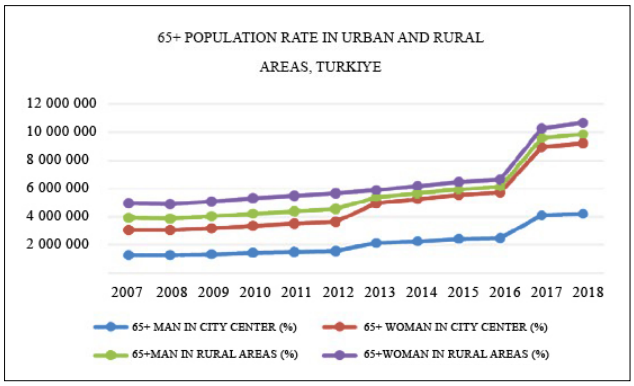

Figure 3. Türkiye's 65+ population in urban centers and rural areas by year (TURKSTAT, 2024a).

Theoretical Background

This study was initiated with the aim of understanding the tripartite relationship among the "elderly – environment – activity" within the framework of Havighurst's (1961) Activity Theory, considering the rising trend of rural aging in Türkiye (TURKSTAT, 2024b) and the importance of activity in old age. The relationship between the elderly and their environment was examined within the scope of environmental gerontology (Peace et al., 2007), while Carlson's (2002) Person-Environment-Activity Model was also taken into consideration.

The Concept of Aging and Environmental Gerontology

The concept of aging is a phenomenon that shapes many personal and societal issues and is connected to various disciplines. However, it remains a phenomenon with unclear boundaries and no definitive definition (Vina et al., 2007; Tauste et al., 2018).

While the threshold of old age is currently accepted as 65 years and older by many global organizations, including the WHO and OECD, Japan— which has the highest proportion of elderly population—advocates for a new threshold of 75+. According to data from the Japan Gerontological Society and the Japan Geriatrics Society in 2013, there is currently a 5- to 10-year difference in the aging stage, based on changes in physical functions such as walking speed and grip strength (Ouchi et al., 2017). This suggests that the chronological threshold for old age can be variable. WHO acknowledges that aging is both a personal attribute and highly dependent on the environment, arguing that functional abilities in the elderly population can increase in connection with the opportunities provided by the environment (WHO, 2015).

Recent studies (Peace et al., 2007; Clarke and Nieuwenhuijsen, 2009) demonstrate that while genetic inheritance plays a role in the aging process, the environment significantly influences aging through epigenetic effects (Garrett and Poulain, 2018). Collectively, these approaches underscore the importance of environmental gerontology, which aims to define the relationship between the elderly population and their socio-physical environments within an interdisciplinary framework (Wahl and Gitlin, 2007).

In the context of environmental gerontology, the Person-Environment-Activity Model, which examines the relationship between activity and the environment in old age, posits that individual-level activities influence the elderly's functional capacity at the societal level. It also argues that individual activities are accessible and usable to the extent that they align with environmental demands (see Figure 6).

To support the theory that examines the relationship between the elderly and their environment in connection with their activities, it is also necessary to explain the concepts of activity theory and active aging.

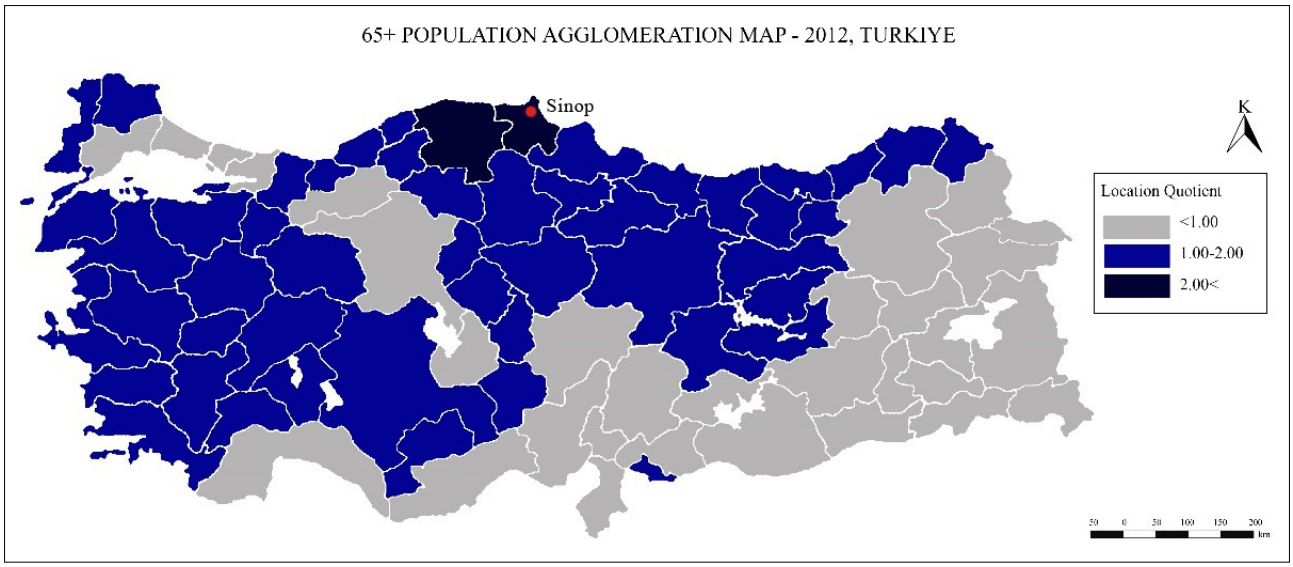

Figure 4. Türkiye's elderly population concentration map - 2012 (TURKSTAT, 2024a).

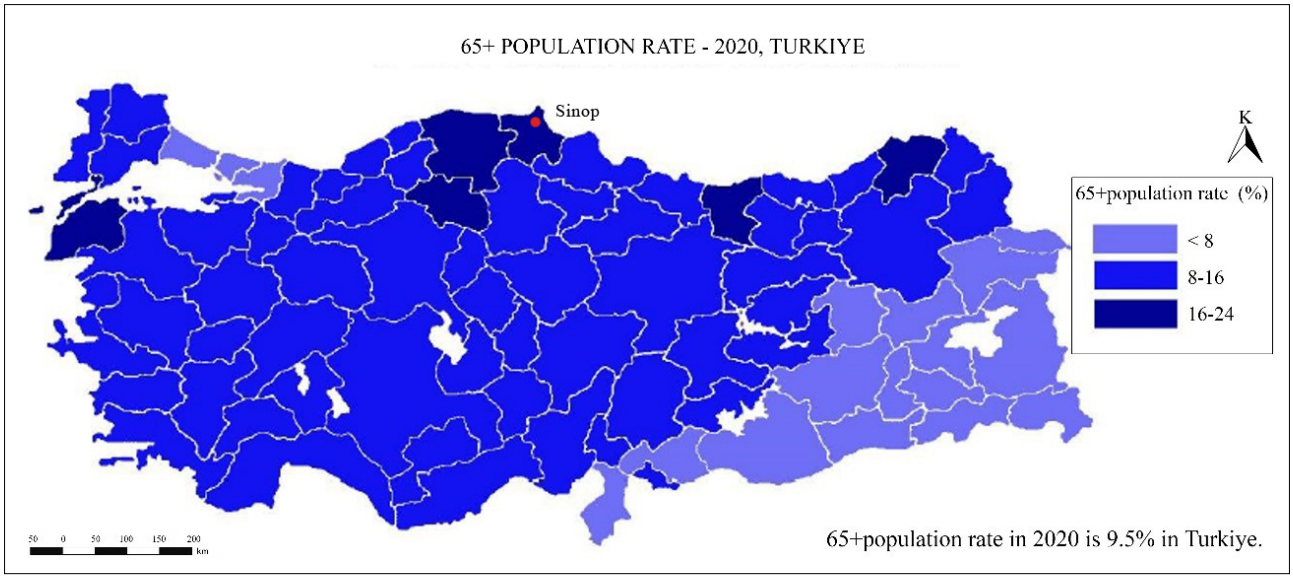

Figure 5. Türkiye's elderly population ratio map - 2020 (TURKSTAT, 2024a).

Activity Theory and Active Aging

As a counter to Disengagement Theory, Robert J. Havighurst (1961) proposed the Activity Theory, which asserts that individuals should continue the physical exercises, movement, and meditation/worship activities they engaged in during middle age into their later years (Victor, 2005; Formosa, 2020; Jancewicz, 2001; Low et al., 2009; Di Lorito et al., 2021).

Another study identified that a key component supporting these activities is organic social relationships. These social connections, particularly in small-scale settlements, are highlighted as playing a positive role in the aging process (Garcia & Miralles, 2017). In other words, strong organic social bonds contribute to keeping the elderly population active, opening the door to a happy and long life.

One of the criticisms of Activity Theory is its inability to provide a clear explanation for why some elderly individuals are passive yet happy, while others are active but unhappy (Tufan, 2001). Despite these critiques, many countries have begun to emphasize the positive outcomes of active aging, viewing it as an investment in the aging population and incorporating it into their national strategies (Formosa, 2020; Barbabella et al., 2022). According to a study on active aging in the United Kingdom (Bowling, 2008), elderly individuals defined active aging as physical health and functionality (43%), leisure and social activities (34%), cognitive functionality (18%), and social relationships and connections (15%).

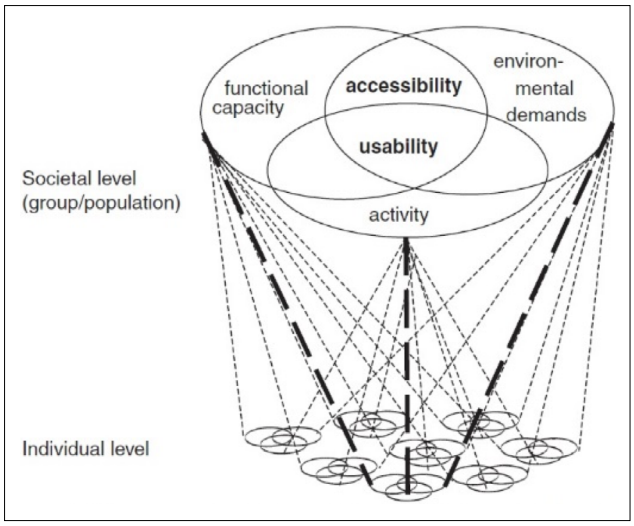

Figure 6. Person-Environment-Activity Model (Carlson, 2002, as cited in Scheidt and Windley, 2006).

The concept of active aging, associated with Activity Theory, was first accepted in the late 1990s as "the process of optimizing opportunities for health, participation, and security to enhance quality of life as people age" (WHO, 2002). Factors affecting active aging are closely linked to economic, social, behavioral, and physical elements, as well as the physical environment and social health services (Annear et al., 2014). The concept of active aging demonstrates that when elderly individuals remain active, they stay healthy, and this influences—and is influenced by—various factors such as social, economic, and environmental aspects (Walker, 2002).

Active aging has been criticized for promoting specific practices and lifestyles or for implementing biased policies (Pfaller & Schweda, 2019). However, all available data suggest that practices aligned with this approach positively impact the aging process and help reduce the signs of aging (Formosa, 2020; Barbabella et al., 2022).

Personal care in old age is categorized into six main areas: instrumental activities of daily living, leisure activities, social activities, paid activities, and rest (Horgas et al., 1998). This framework (see Table 1) was utilized in evaluating the data obtained from the survey conducted in the research.

A study on the daily activity levels of the elderly indicates that as the independence of elderly individuals increases—meaning they do not require assistance for their daily activities—their quality of life improves (Kankaya & Karadakovan, 2017). Therefore, while examining the concept of spatial and gender-based aging, elderly dependency has also been closely analyzed.

Accessible environments that encourage elderly individuals to spend time outdoors contribute to a more active lifestyle and improved quality of life (Sugiyama & Ward Thompson, 2007). Similarly, Gehl (2011) suggests that as the quality of the physical environment improves, non-essential activities increase and tend to last longer. This dynamic is influenced by three concepts: public health (community health), psychology, and environmental design. It is suggested that with a supportive environment, elderly activities can become more varied, and some activities may even become habitual (Owen et al., 2004). A number of studies by various organizations around the world explore the conditions required to create this supportive environment and how they can be developed. These include concepts such as successful aging, aging in place, active/healthy aging, and the WHO Age-Friendly Cities approach. Among these, the concept of aging in place and the WHO Age-Friendly Cities Network are particularly relevant to the elderly and their physical environment.

The "aging in place" approach, which includes the concepts of socio-spatial embeddedness and place attachment, and the "WHO Network of Age-Friendly Cities," which focuses on approaches specific to the city, social structure, and spatial character, aim to improve the physical, social, and economic conditions of the elderly and to increase their quality of life.

According to a study conducted in Finland (Rantakokko et al., 2010), when elderly individuals are dissatisfied with their ability to participate in physical activities, they turn to non-physical activities, and giving up meaningful activities results in high levels of depressive symptoms. Similarly, research conducted across seven rural regions in North Carolina concluded that social and environmental interventions—such as improving social support, safety, and accessibility—would increase physical activity among the elderly (Shores et al., 2009). One critical issue here is whether the motivating force for elderly individuals to engage in activity stems from obligatory daily tasks or voluntary activities. Therefore, it should be considered that rural and urban areas offer different spatial potentials for elderly individuals.

Rural settlements not only differ in terms of spatial opportunities but also show demographic variations. According to the Eurofound (2014) report, half of the single-person households in rural areas of Europe are composed of retirees. In Türkiye, 45.8% of single-person households consist of elderly individuals, with 76.5% of these elderly being women and 23.5% being men (Güler et al., 2016). When combined with disadvantages such as low education levels or lack of access to social security, this situation of living alone in rural areas makes elderly women more vulnerable to dependency. It also makes activities such as traveling to another city or participating in events more difficult for them.

Table 1. Daily Life Activities of the Elderly (Horgas et al., 1998)

Main Category	Activity	Main Category	Activity
Personal Maintenance	Arising	Leisure Activities	Reading
	Personal care		Watching TV
	Eating		Cultural activities
	Preparing for bed		Educational activities
	Miscellaneous other		Sports
			Creative activities
			Gardening
			Walking
			Excursions
			Writing
			Playing
			Listening to radio/tape/record
			Church activities
			Political activities
			Other leisure activity
Instrumental Activities of	Shopping	Social Activities	Talking to people
Daily Living (IADLs)	Light household chores		Visiting
	Heavy household chores		Telephoning
	Handiwork/mending/sewing	Other social activities	
	Other housework		Helping family members
	Banking		Helping other people
	Dealing with authorities/institutions	Paid Word	Regular paid work
	Dealing with the post office		Other work
	Dealing with other official institutions	Resting	Sleeping during the day
	Medical treatment (e.g., getting X-rays)		Doing nothing
	Self-treatment (e.g., taking a foot bath)		Planning
	Passive transportation (e.g., being driven)		
	Active transportation (e.g., driving a car)		

METHODOLOGY

The research methodology involved three sequential processes: selecting the settlement where aging studies would be conducted, determining the scope of the survey data collection, and implementing the survey itself. As explained above, Sinop Province was selected as the research area based on 2020 data, which showed that it had the highest population of individuals aged 65 and over. Without focusing on a specific settlement, Sinop's central district was selected to represent urban areas, while rural settlements from nine districts were included in the sample for rural areas. The survey participation rates are shown in Table 2 in the results section.

The method used for data collection from elderly individuals was a survey. The survey questions included both open-

Table 2. Survey Distribution by Districts

District	Number	Rate (%)
Ayancık	45	8,5
Boyabat	86	16,2
Dikmen	10	1,9
Durağan	34	6,4
Erfelek	32	6,0
Gerze	42	7,9
Sinop (City Center)	228	42,9
Saraydüzü	16	3,0
Türkeli	39	7,3
Total	532	100

ended and Likert-scale items, designed to understand how the daily life activities of the elderly differ by space and gender. The study was conducted between September 9, 2020, and September 17, 2020, in Sinop. In urban areas, elderly individuals were surveyed face-to-face in parks, seaside areas, coffee houses, workplaces, and mosque courtyards, while in rural areas, surveys were conducted in coffee houses, mosques, fields, and residential gardens.

As explained in the theoretical section, daily life activities in old age may vary depending on the opportunities provided by the environment, social ties, and gender. Therefore, the sample was stratified by rural–urban areas and gender. A total of 532 volunteers participated in the study, consisting of 209 individuals from rural areas and 323 from urban areas, with 200 women and 332 men.

Limitations and Assumptions

Before interpreting the results of the fieldwork, it is important to clarify some of the study's limitations and assumptions. First, according to the World Health Organization (WHO, 2015), the threshold for old age is defined as 65 years and older. In Türkiye, individuals aged 65 and above are similarly defined as the elderly population and are considered economically dependent (Republic of Türkiye Ministry of Health, 2016). Therefore, participants aged 65 and older were considered part of the advanced age group, and the study was conducted accordingly.

It was assumed that the elderly individuals who actively participated in the study answered the interview questions with honesty and accuracy, and thus, they are considered representative of a randomly selected population of elderly individuals.

The COVID-19 pandemic, which emerged at the beginning of 2020 and spread worldwide, significantly affected the course of this study. Due to the impact of the pandemic on the elderly population, the study was conducted by professionals during a period when the pandemic had relatively subsided. The fieldwork took place under pandemic conditions in September 2020. Due to the circumstances at the time, elderly individuals avoided public spaces, which prolonged the data collection process beyond the initial plan. Additionally, difficulties were encountered in reaching the advanced age group, particularly elderly women. As a result, 72% of the participants were between the ages of 65 and 70, representing a physically active and dynamic elderly population group. Conducting this research again during a different period would be beneficial.

RESULTS

Sinop is a province located in Türkiye's Black Sea region, comprising the central district, nine additional districts, 50 neighborhoods, and 465 villages. It was established as a fortress city on the Inceburun and Boztepe isthmus and has maintained its identity as a port city, historically expanding toward the east. When examining the spatial distribution of the elderly in Sinop, it was observed that the overall distribution is nearly homogeneous (see Figure 7). In terms of urban elderly concentration, Dikmen district stands out with 24.8%, while Sarayduzu district leads rural elderly concentration with 46.5%. The survey's urban data were evaluated based on Sinop's central district, while the rural data were assessed through the villages associated with the districts (see Table 2).

In the study areas, all elderly individuals in rural areas reside in detached houses with gardens, while those in the city center live in apartment-style housing. The elderly participants in the survey were selected from those who spent time in public open spaces within the city (see Figure 8). Due to the pandemic—particularly in rural areas—

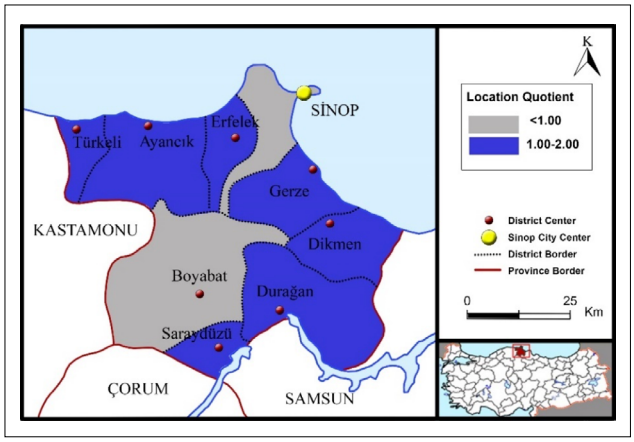

Figure 7. Sinop 65+ Population Agglomeration Map - 2020 (Köse Görgülü, 2022).

Figure 8. Images from the survey conducted with elderly individuals in public spaces in rural and urban settlements in Sinop.

elderly women did not leave their homes, and therefore, interviews were conducted in the gardens of their homes.

Since the goal of this study was to examine how elderly individuals use public spaces around their residences and what activities they engage in, plans and maps of public spaces were not included. Thus, public space behaviors were limited to how elderly individuals access and use certain places (such as shops or health centers). Before reviewing the data results, it is important to acknowledge that the available facilities in these spaces may limit the elderly users. For example, while an elderly individual in the city center may go fishing in their leisure time, a person in a rural area may engage in gardening or livestock activities. The purpose here is to assess the connection between elderly users and the spaces they inhabit through their activities, taking into account the opportunities or limitations provided by these environments. Where deficiencies are identified, space-specific measures and development strategies can be proposed.

The majority (approximately 27%) of the elderly participants in the survey are in the 65–70 age range, representing an early age group with a relatively high level of physical activity. According to the results, 76% of the elderly participants are married, and 72% live with their spouses. The proportion of those living alone is 15% (see Table 3).

When examining the educational status of elderly individuals, it is observed that the literacy rate among those in rural areas is lower compared to those in the city center. Although the percentage of women with high school or higher education is greater than that of men (39.6% for men and 50.75% for women) (see Table 4), elderly women living in rural areas have the lowest education levels among all participant groups.

In rural areas, the illiteracy rate among women is particularly high. This not only limits their engagement in leisure activities such as reading but also highlights their dependency on others for tasks such as traveling or accessing institutional, financial, or healthcare services in daily life.

Relationship Between Activities, Space, and Gender

When examining the activities of elderly individuals across different settlement types and genders, it is evident that women, both in urban and rural areas, spend less time in public spaces compared to men (see Table 5).

The results of the Chi-square test, conducted to examine the differences in reasons for going outside based on settlement type, are presented in Table 6. The findings reveal significant differences between urban and rural residents in terms of shopping, work, gardening, and participation in religious activities ($p<0.05$). While 50.8% of urban residents reported going outside primarily for shopping, this figure drops to 38.8% for rural residents. This difference may be

Table 3. Marital status and cohabitant(s)

	Cohabitant													
	Alone			With Spouse			With children			Other(s)			Total		
	Number	Ratio %	Total rate %	Number	Ratio %	Total rate %	Number	Ratio %	Total rate %	Number	Ratio %	Total rate %	Number	Ratio %	Total rate %
Married	10	12,0	2,5	381	100,0	94,5	12	27,9	3,0	0	0,0	0,0	403	75,8	100,0
Single	49	59,0	77,8	0	0,0	0,0	0	0,0	0,0	14	56,0	22,2	63	11,8	100,0
Widowed	21	25,3	42,9	0	0,0	0,0	23	53,5	46,9	5	20,0	10,2	49	9,2	100,0
Divorced	3	3,6	17,6	0	0,0	0,0	8	18,6	47,1	6	24,0	35,3	17	3,2	100,0
Total	83	100,0	15,6	381	100,0	71,6	43	100,0	8,1	25	100,0	4,7	532	100,0	100,0

Percentages are calculated based on the total number of participants (532). National averages are not available in the provided table.

Table 4. Education

	Urban		Rural	
	Male (%)	**Female (%)**	**Male (%)**	**Female (%)**
Illiterate	0,5	0,0	3,4	6,5
Literate	0,9	2,8	1,7	6,5
Primary School	25,9	33,6	49,1	28,0
Middle (Secondary) School	16,7	9,3	22,4	11,8
High School	23,6	18,7	15,5	31,2
College	17,6	12,1	3,4	8,6
University	13,4	18,7	4,3	3,2
Postgraduate	1,4	4,7	0,0	4,3

Table 5. Duration of Time Spent in Public Spaces

	Urban		Rural	
	Male (%)	**Female (%)**	**Male (%)**	**Female (%)**
Every day	80,1	59,8	84,5	64,5
6 days a week	1,4	5,6	3,4	4,3
5 days a week	3,7	4,7	4,3	4,3
4 days a week	4,2	3,7	0,9	4,3
3 days a week	3,2	8,4	2,6	3,2
2 days a week	5,6	12,1	1,7	10,8
1 day a week	1,9	5,6	2,6	8,6

Table 6. Purpose of Going Outside Based on Settlement Type

	X^2	p	Urban (%)	Rural (%)
*Shopping	7,377	0,007	50,8	38,8
Receiving healthcare services	1,752	0,186	5,9	3,3
*Working	5,839	0,016	13,9	22,0
Exercising	0,717	0,397	35,6	39,2
Meeting relatives, neighbors etc.	0,116	0,733	13,3	14,4
*Gardening	27,590	0,000	4,3	18,2
Artistic-cultural activities and enrolling courses	1,016	0,313	1,2	2,4
*Religious activity	5,761	0,016	2,2	6,2
Caring grandchildren or family members	3,266	0,162**	1,5	0,0
Other	1,485	0,223	7,4	4,8

*Significance ($p<0.05$); ** Fisher's Exact Probability Test is applied.

attributed to the limited shopping facilities in rural areas and the ability to source certain food items directly from home gardens. Furthermore, work (22.0%), gardening (18.2%), and participation in religious activities (6.2%) are more common among rural residents.

The distinct spatial characteristics of each settlement type contribute significantly to the diversity and nature of activities among elderly individuals. In other words, the lack of cultural amenities (such as cinemas, theaters, and exhibition halls) in rural areas, and the limited open spaces for gardening in urban settings (for example, growing plants in pots on balconies), play a crucial role in shaping the types of activities elderly individuals can engage in.

The results of the Chi-square test analyzing the differences

in reasons for going outside based on gender are presented in Table 7. The findings indicate statistically significant differences between men and women with respect to exercise, gardening, and artistic/cultural activities ($p<0.05$). Men are more likely to go outside for exercise, whereas women demonstrate a greater tendency to engage in gardening and artistic/cultural activities.

These results suggest that gender significantly influences the nature of outdoor activities among the elderly, likely reflecting differing preferences and societal roles typically associated with men and women. If additional specific Chi-square values are available, they can be incorporated into the analysis.

A significant portion of elderly individuals reported going outside primarily for shopping, with shopping activities in urban settings (46.6%) also serving as opportunities for social interaction. On the other hand, elderly individuals living in rural areas are more likely to go outside for gardening (10.1%), work (22%), and religious activities (3.9%). The combined high rates of gardening and work-related activities in rural areas suggest that elderly individuals are employed in family businesses, actively participate in production activities, or contribute to subsistence farming.

The overall rate of elderly individuals going outside for work is notably high (see Table 7). In urban areas, this rate stands at 13.9%, while in rural areas it is 22%. Among women, 13% go outside for work, compared to 19.6% among men. These figures clearly indicate that even during the pandemic, many elderly individuals faced economic difficulties, which compelled them to continue working.

It has been found that participation in artistic and cultural activities among elderly individuals increases with higher levels of education, a finding supported by previous studies (Canatan & Boz, 2019). In this context, the fact that women in Sinop have a higher education level compared to men and participate more frequently in artistic activities aligns with these results (see Tables 4 and 7).

All findings indicate that spatial opportunities play a significant role in shaping the activities of elderly individuals, particularly in facilitating discretionary activities rather than compulsory ones.

CONCLUSION AND DISCUSSION

This study was conducted in 2020 under pandemic conditions in Sinop, the city with the highest elderly population concentration in Türkiye, to assess the active aging potential of the elderly population and to examine how their activities are shaped. It is crucial to acknowledge that the COVID-19 pandemic significantly influenced the approach and trajectory of this research.

Considering the impact of lockdowns on outdoor activities, elderly individuals without access to outdoor spaces in their homes may have become inactive and passive indoors. During the pandemic, the elderly population may have engaged in activities that differed from their usual daily routines. Therefore, potential changes in behavior compared to the pre-pandemic period should be considered when interpreting the results.

It may be beneficial to repeat this study using longitudinal tracking methods, along with observation and measurement techniques, for several years after the pandemic has ended. This would provide valuable insights into long-term trends and changes in the activity patterns of the elderly population.

According to the research findings, the daily life activities of elderly individuals in public spaces vary based on settlement typology and gender. Significant differences were observed

Table 7. Purpose of Going Outside Based on Gender

	X^2	P	Male (%)	Female (%)
Shopping	2,01	0,156	43,7	50,0
Receiving healthcare services	3,078	0,079	3,6	7,0
Working	3,809	0,051	19,6	13,0
*Exercising	8,862	0,003	41,9	29,0
Meeting relatives, neighbors etc.	2,909	0,088	11,7	17,0
*Gardening	8,115	0,004	6,9	14,5
*Artistic-cultural activities and enrolling courses	15,197	0,000**	0,0	4,5
Religious activity	0,511	0,475	4,2	3,0
Caring grandchildren or family members	3,869	0,069**	0,3	2,0
Other	0,425	0,514	6,9	5,5

*Significance (p<0,05); **Fisher's Exact Probability Test is applied; The study reveals that more than half of the elderly population living in urban areas go outside

in specific activities such as shopping, exercise, gardening, and caregiving. When examining the distribution of these activities, the most common daily activities among elderly individuals in Sinop's urban areas were shopping (46.6%) and exercise (38.3%), whereas gardening (10.1%), work (22%), and religious activities (3.9%) were more prevalent in rural areas.

In terms of gender differences, men were more likely to go outside for sports and exercise (41.9%), while women were more inclined to engage in gardening (14.5%) and artistic/cultural activities (4.5%). Additionally, the presence of elderly individuals caring for grandchildren or other family members, with this responsibility being more common among women (2%), indicates that elderly activities in Türkiye are influenced not only by spatial and gender factors but also by various sociocultural dynamics.

It is noteworthy that, despite the pandemic conditions, 91 elderly individuals in Sinop were still employed. Providing elderly individuals in Türkiye with fair income and social security rights after retirement, along with opportunities for voluntary or paid work, is particularly important for those who are physically able and wish to continue working (Demirbilek & Öktem Özgür, 2017). Ahtonen (2012) emphasizes that the healthy active aging market presents a significant potential opportunity to transform the "silver economy" into a profitable venture.

The decline in elderly individuals' incomes during their working years, coupled with the poverty they face—especially among rural women—highlights their vulnerability. In this context, "rural women's poverty," which is intricately linked to active aging, is an important issue that warrants further investigation and attention.

Previous research has shown that elderly individuals with lower education levels experience a decline in physical activity in the early stages of aging (Shaw & Spokane, 2008). Additionally, as education levels increase, participation in activities such as cultural and artistic events tends to rise (Canatan & Boz, 2019). Similarly, this study reveals that elderly women in rural Sinop have lower literacy levels and participate less in artistic activities compared to their urban counterparts. However, in Sinop, women show higher rates of education and participation in artistic activities compared to men (see Tables 2 and 4), which aligns with existing research. Given the evidence that participation in artistic activities can alleviate loneliness among older adults (Tymoszuk et al., 2019; Köse & Erkan, 2024), there is a need for organizations in Sinop that can connect the 15% of elderly adults living alone with cultural and artistic activities. Furthermore, the higher participation rate in religious activities in rural areas compared to urban settings may be attributed to the fact that religious involvement, especially in small social groups, has been found to enhance subjective well-being (Yoon & Lee, 2004).

The study emphasizes the need to increase individual awareness of active aging among elderly individuals and to support a variety of activities through social policies. At the local level, physical and social arrangements should be implemented in both urban and rural areas to encourage the elderly population to be active, strengthen their social relationships, and meet their needs. Specifically, in rural areas, lifelong education—particularly for elderly women—should be supported. Special employment opportunities should be created for elderly individuals who are physically capable and wish to continue working, and at the national level, the principles of active aging should be incorporated into strategic plans. It is expected that individual-level recommendations will yield short-term results, local and social interventions will have medium-term effects, and national plans will produce long-term outcomes.

This study highlights the significant impact that the available opportunities and potential of a given space have on elderly activities, especially discretionary activities. As previously emphasized, social connections play a positive role in the activities of elderly individuals (Garcia & Miralles, 2017). Therefore, creating spaces that encourage social activities and foster new relationships will help shape discretionary activities among the elderly.

Elderly individuals—often referred to as the "living memory" of settlements that carry traces of spatial changes—play a unique role that distinguishes them from other types of public space users. It is crucial to acknowledge that just as people shape places, places shape the people who inhabit them. Recognizing that formal and spatial changes in cities, which are living organisms, inevitably affect people's lifestyles is essential. Addressing the diverse needs of individuals from different backgrounds in the cities we shape contributes to a better, more efficient, and impartial understanding of urban design and planning. This approach is seen as a crucial step toward creating more livable cities.

Considering all the data, this study should be regarded as a significant contribution to aging studies in Türkiye and to global research on Activity Theory. The findings are expected to aid landscape architects and urban designers in developing age-sensitive design strategies, assist sociologists and social scientists in understanding the role of daily functions within societal roles for the elderly, and contribute to geriatric and health-related studies regarding the effects of daily activities on elderly health. Given the multifaceted nature of aging as a concept—shaped by physiological, psychological, socio-cultural, economic, and environmental factors—it is imperative to consider these elements when developing age-sensitive designs.

For instance, it is essential to account for both the physical capabilities of the environment and prevailing socio-cultural norms. This includes increasing the number of socialization venues for the elderly to prevent social

isolation. Additionally, the development of transportation networks that are accessible and user-friendly for the elderly is crucial in ensuring their autonomy in reaching these venues. Furthermore, it is important to facilitate interactions with individuals of various age groups within these settings.

The results of this research aim to promote active aging by highlighting key areas where local governments and the national government should focus in terms of planning and design. It is hoped that this study will also lay the groundwork for future research on this topic.

ETHICS: There are no ethical issues with the publication of this manuscript.

PEER-REVIEW: Externally peer-reviewed.

CONFLICT OF INTEREST: The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

FINANCIAL DISCLOSURE: The authors declared that this study has received no financial support.

REFERENCES

Ahtonen, A. (2012). Healthy and active ageing: Turning the silver economy into gold (EPC Issue Paper No. 73). European Policy Centre. Retrieved, March 26, 2025; from https://gensstudy.org/dati/art/99/doc/172.pdf

Ahtonen, A. (2012). Healthy and active ageing: Turning the silver economy into gold (EPC Issue Paper No. 73). European Policy Centre. Retrieved, March 26, 2025; from https://gensstudy.org/dati/art/99/doc/172.pdf

Annear, M., Keeling, S., Wilkinson, T., Cushman, G., Gidlow, B., & Hopkins, H. (2014). Environmental influences on healthy and active ageing: A systematic review. Ageing Soc, 34(4), 590–622.

Barbabella, F., Cela, E., Socci, M., Lucantoni, D., Zannella, M., & Principi, A. (2022). Active ageing in Italy: A systematic review of national and regional policies. Int J Environ Res Public Health, 19(1), 600.

Bengston, V. L., Burgess, E. O., & Parrott, T. M. (1997). Theory, explanation, and a third generation of theoretical development in social gerontology. J Gerontol B Psychol Sci Soc Sci, 52B(2), S72–S88.

Bowling, A. (2008). Enhancing later life: How older people perceive active ageing? Aging Ment Health, 12(3), 293–301.

Canatan, Ü., & Boz, H. (2019). Hayat boyu öğrenme etkinliklerine katılımın aktif yaşlanmanın desteklenmesindeki rolü. Soc Sci, 14(3), 343–63.

Carlson, G. (2002). Catching the bus in old age: Methodological aspects of accessibility assessments in public transport (Doctoral dissertation, Lund University). Lund, Sweden: Studentlitteratur.

Clarke, P., & Nieuwenhuijsen, E. R. (2009). Environments for healthy ageing: A critical review. Maturitas, 64(1), 14–19.

Demirbilek & Öktem Özgür, 2017. Silver economy and elderly employment in the context of active aging. YSAD, 10(1), 14-28.

Di Lorito, C., Long, A., Byrne, A., Harwood, R. H., Gladman, J. R., Schneider, S., & van der Wardt, V. (2021). Exercise interventions for older adults: A systematic review of meta-analyses. J Sport Health Sci, 10(1), 29–47.

Eurofound. (2014). Quality of life in urban and rural Europe. Publications Office of the European Union. Retrieved, March 26, 2025; from https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Urban-rural_Europe_-_quality_of_life_in_rural_areas#:~:text=In%202022%2C%20the%20average%20rating,rural%20areas%20(both%207.1).

Formosa, M. (2020). Activity theory as a foundation for active ageing policy: The Maltese experience. EX-LIBRIS Bibl Gerontol Społ, 1(18), 13–24.

Garcia, H., & Miralles, F. (2017). Ikigai: Japonların uzun ve mutlu yaşam sırrı (M. Uzun, Trans.). Indigo Books.

Garrett, M. D., & Poulain, M. (2018). Geography of aging: The science of belonging. Open Sci J Psychol, 5(6), 73–83.

Gehl, J. (2011). Life between buildings. In Cities for people (pp. 73–83). Island Press.

Güler et al., 2016. Being an "old woman" in the countryside. IBAD, 1(2), 201–15.

Havighurst, R. J. (1961). Successful aging. Gerontologist, 1(1), 8–13.

Horgas, A. L., Wilms, H. U., & Baltes, M. M. (1998). Daily life in very old age: Everyday activities as expression of successful living. Gerontologist, 38(5), 556–68.

Jancewicz, A. (2001). Tai chi chuan's role in maintaining independence in ageing people with chronic disease. J Bodyw Mov Ther, 5(1), 70–77.

Kankaya, H., & Karadakovan, A. (2017). Quality of life of activity levels of daily living and its impact on life satisfaction in elderly individuals. GÜSBD, 6(4), 21–29.

Köse Görgülü, 2022. The effect of urban space organization on the urban activities of the elderly: The example of Istanbul and Vienna. Department of City and Regional Planning, Yildiz Technical University.

Köse, N., & Erkan, N. C. (2014). The role of participation in lifelong learning activities in supporting active aging. METU JFA, 31(1), 39–66.

Lemon, B. W., Bengtson, V. L., & Peterson, J. A. (1972). An exploration of the activity theory of aging: Activity types and life satisfaction among in-movers to a retirement community. J Gerontol, 27(4), 511–23.

Low, S., Ang, L. W., Goh, K. S., & Chew, S. K. (2009). A systematic review of the effectiveness of tai chi on fall

reduction among the elderly. Arch Gerontol Geriatr, 48(3), 325–31.

Marshall, V. W. (1996). The state of theory in aging and the social sciences. In R. H. Binstock & L. K. George (Eds.), Handbook of aging and the social sciences (4th ed., pp. 12–30). Academic Press.

Ouchi, Y., Rakugi, H., Arai, H., Akishita, M., Ito, H., Toba, K., & Kai, I. (2017). Redefining the elderly as aged 75 years and older: Proposal from the joint committee of the Japan Gerontological Society and the Japan Geriatrics Society. Geriatr Gerontol Int, 17(7), 1045–47.

Owen, N., Humpel, N., Leslie, E., Bauman, A., & Sallis, J. F. (2004). Understanding environmental influences on walking: Review and research agenda. Am J Prev Med, 27(1), 67–76.

Özcan, A. N. (2019). Psychological theories of aging. In A. Akgül (Ed.), Geronteknoloji (1st ed., pp. 103–12). Türkiye Klinikleri.

Öztürk, H. (2015). Ageing and rural old age: Current situation report. Kalkınma Atölyesi.

Peace, S., Wahl, H.-W., Mollenkopf, H., & Oswald, F. (2007). Ageing in society: European perspectives on gerontology (3rd ed.). SAGE Publications.

Pfaller, L., & Schweda, M. (2019). Excluded from the good life? An ethical approach to conceptions of active ageing. Soc Inclusion, 7(3), 44–53.

Rantakokko, M., Iwarsson, S., Kauppinen, M., Leinonen, R., Heikkinen, E., & Rantanen, T. (2010). Quality of life and barriers in the urban outdoor environment in old age. J Am Geriatr Soc, 58(11), 2154–59.

Republic of Türkiye Ministry of Health. (2016). Health statistics yearbook–2016. Republic of Turkey Ministry of Health, Health General Directorate of Research. Retrieved, March 26, 2025; from https://dosyasb.saglik.gov.tr/Eklenti/13183,sy2016turkcepdf.pdf?0

Scheidt, R. J., & Windley, P. G. (2006). Environmental gerontology: Progress in the post-Lawton era. In J. E. Birren & K. W. Schaie (Eds.), Handbook of the psychology of aging (6th ed., pp. 105–25).

Semsei, I. (2000). On the nature of aging. Mech Ageing Dev, 117(1–3), 93–108.

Shaw, B. A., & Spokane, L. S. (2008). Examining the association between education level and physical activity changes during early old age. J Aging Health, 20(7), 767–87.

Shores, K. A., West, S. T., Theriault, D. S., & Davison, E. A. (2009). Extra-individual correlates of physical activity attainment in rural older adults. J Rural Health, 25(2), 211–18.

Sugiyama, T., & Ward Thompson, C. (2007). Outdoor environments, activity and the well-being of older people: Conceptualising environmental support. Environ Plann A, 39(8), 1943–60.

Tauste, R., Moreno-Navarro, F., Sol-Sánchez, M., & Rubio-Gámez, M. C. (2018). Understanding the bitumen ageing phenomenon: A review. Constr Build Mater, 192, 593–609.

Tufan, I. (2001). A young man in an aging world: Türkiye. Toplum Sosyal Hizmet Derg, 12(3), 27–49.

TURKSTAT. (2024a). Address Based Population Registration System Results, 2024. Publication Date: 06 February 2025, Issue: 53783. Statistical Tables. Retrieved, March 26, 2025; from https://data.tuik.gov.tr/Bulten/Index?p=Adrese-Dayali-Nufus-Kayit-Sistemi-Sonuclari-2024-53783

TURKSTAT. (2018). Population projections, 2018–2080. Retrieved, March 26, 2025; from https://data.tuik.gov.tr/Bulten/Index?p=Nufus-Projeksiyonlari-2018-2080-30567

TURKSTAT. (2023). Seniors with statistics, 2022. Publication, Date: 17 March 2023, No: 49667. Retrieved, March 26, 2025; from https://data.tuik.gov.tr/Bulten/Index?p=Istatistiklerle-Yaslilar-2022-49667

TURKSTAT. (2024b). Population Projections, 2023–2100. Published Date: 30 July 2024, Issue: 53699. Retrieved, March 26, 2025; from https://data.tuik.gov.tr/Bulten/Index?p=Nufus-Projeksiyonlari-2023-2100-53699

Tymoszuk, U., Perkins, R., Fancourt, D., & Williamon, A. (2019). Cross-sectional and longitudinal associations between receptive arts engagement and loneliness among older adults. Soc Psychiatry Psychiatr Epidemiol, 54(7), 955–63.

UN. (2017). World population ageing 2017 – Highlights. United Nations. Retrieved, March 26, 2025; from https://www.un.org/en/development/desa/population/publications/pdf/ageing/WPA2017_Highlights.pdf

UN. (2018). World urbanization prospects 2018. https://population.un.org/wup

Victor, R. C. (2005). The social context of ageing. Routledge. Retrieved, March 26, 2025; from https://www.gmu.ac.ir/Dorsapax/userfiles/file/daneshkadeParastari/55555555.pdf

Vina, J., Consuelo, B., & Miquel, J. (2007). Theories of ageing: A critical review. IUBMB Life, 59(4–5), 249–54.

Wahl, H.-W., & Gitlin, L. N. (2007). Environmental gerontology. In J. E. Birren (Ed.), Encyclopedia of gerontology (2nd ed., pp. 494–502).

Walker, A. (2002). A strategy for active ageing. Int Soc Secur Rev, 55(1), 121–39.

WHO. (2002). 25 questions & answers on health and human rights. Retrieved, March 26, 2025; from https://iris.who.int/bitstream/handle/10665/42526/9241545690-eng.pdf?sequence=1

WHO. (2015). World report on ageing and health. Retrieved, March 26, 2025; from https://apps.who.int/iris/handle/10665/186463

Yakar, M. (2014). Median age by districts in Türkiye Spatial and statistical analysis of its distribution. Int Period Lang Lit Hist Turkic, 9(11), 559–91.

Yoon, D. P., & Lee, E. K. O. (2004). Religiousness/spirituality and subjective well-being among rural elderly Whites, African Americans, and Native Americans. J Hum Behav Soc Environ, 10(1), 191–211.