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Creating Inclusive Public Parks: Identifying Park Features That Encourage Elderly Visitation in Bangkok, Thailand

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ABSTRACT

This study aims to examine the factors influencing the use of public parks among the elderly in Bangkok, Thailand, amidst shifting demographics. As of mid-2024, seniors aged 60 and older accounted for 20.70% of Thailand's total population. With an annual growth rate of 4.89%, the country is steadily advancing toward becoming a super-aged society. The elderly population increasingly seeks not only senior-friendly housing but also accessible and inclusive public parks or spaces. Parks play a vital role in promoting the health, well-being, and social engagement of elderly individuals. This research explores the relationship between public park use and various independent variables, including public use behavior characteristics and factors associated with the use of public spaces. These factors are categorized into accessibility attributes, diversity attributes, seating arrangement attributes, temperature and weather attributes, aesthetic attributes, safety attributes, and social interaction attributes. Data were collected from 299 respondents, who were asked to rate 25 questions on a 5-point Likert scale, addressing aspects related to their preferences and choices for using public parks. A binary logistic regression analysis was employed to identify the factors impacting elderly individuals' use of public parks in Bangkok. The results indicate that public park use behavior characteristics, along with accessibility, diversity, seating arrangements, aesthetics, safety, and social interaction attributes, significantly influence the use of public parks by elderly individuals. These findings provide valuable insights for public policymakers and park designers, offering recommendations on how to design and develop public parks that better cater to the needs of Bangkok's aging population.

Keywords: Public Park Usage; Park Features; Built Environment; Older Adults; Bangkok

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1. Introduction

Thailand is considered as one of the world's rapidly aged society. According to the National Statistical Office (NSO), Thailand has become to a "complete-aged society" in 2024, where the percent of those aged over 60 is 20%. From the recorded data of the Department of Older Persons (DOP), it shows that the number of elderly (age 60 years or older) is 13,450,391, which is 20.70% of the whole number of Thai citizens ^[1]. It is expected that the number of the elderly will be larger and it will become a "super-aged society" within 2031, where the people aged over 60 is 28% of the population, or 20% of population are aged 65 and over. The data also indicates that the central region of Thailand has the highest number of elderlies, totally 4,784,026 people and the province with the largest elderly population is Bangkok, with 1,271,758 people (about 9.50% of population in total). It is expected that the number of the elderly (age 60 years or older) will be larger, and Thailand will become a "complete-aged society" in 2021, where the percentage of those aged over 60 is 20%, and "super-aged society" within 2031, where the of those aged over 60 is 28% of the population, or 20% of the population are aged 65 and over ^[2]. These demographic changes show the great challenges for policy makers to work on developing the living, recreation, and activity spaces for seniors in Bangkok.

Urban parks and green spaces are important part of towns and cities that can help the people stay healthy and active particularly the elderly. Twohig-Bennett & Jones (2018) stated that the urban parks or green spaces significantly reduce people's levels of stress ^[3]. As for its benefit to elderly, public parks can promote the physical health, social interaction, and mental well-being. Despite these benefits, the elderly are the least frequent visitors to parks. To encourage greater park use among this age group, it is essential to understand their specific needs and preferences regarding park design.

Bangkok has 40 public parks, offering relatively few public spaces suitable for the elderly to gather, socialize, and participate in joint activities. While some public parks are not easily accessible public parks, the overall proportion of public green spaces in Bangkok is relatively low compared to the population. According to data from the

Bangkok Metropolitan Administration in 2023, the total area of public parks in Bangkok is 5,755,520 square meters, serving a population of 5,471,588. This results in a green area ratio of only 1.052 square meters per capita, which is significantly lower than the World Health Organization's (WHO) recommended minimum of 9 square meters per capita ^[4].

Evenson et al. (2016) stated that public parks have been recognized as playing a vital role in healthy aging, offering spaces for recreation and social activities ^[5]. Finlay et al. (2015) said that visiting parks can promote physical activity, reduce sedentary behavior, improve mental health, and foster social interaction among older adults ^[6]. However, in Bangkok, public park use among elderly is low. Expanding the number of public parks in Bangkok could significantly benefit the elderly by providing more spaces for recreation, exercise, and social engagement. Additionally, this could help alleviate loneliness and enhance both the physical and mental well-being of older adults. This research aims to identify the factors influencing the use of public parks among the elderly and to explore their preferences for park design. The findings are intended to assist city policymakers and park designers in developing public parks that better meet the needs of older adults in Bangkok.

2. Literature Review

The literature review is divided into two main sections. The first section introduces the concept of public parks, while the second focuses on previous studies examining factors influencing the use of public parks by the elderly.

2.1. What Is Public Park

There are numerous definitions of public parks. The Cultural Landscape Foundation (2020) defines a public park as an open space accessible to the public, managed by federal, state, or municipal governments, as well as private organizations ^[7]. Public parks can vary in size and configuration but share a common purpose of providing specific and civic benefits to the general public. These spaces offer opportunities for enjoying nature and scenic beauty, participating in sports, attending cultural events and exhibitions,

and supporting education and research. The design and management of public parks are shaped by contemporary urban planning practices, recreation trends, landscape preservation principles, and the promotion of social interaction [7]. Habermas (1991) described public space as areas collectively owned by members of society, where everyone has the right to use such spaces freely, within the boundaries defined by societal norms [8]. Public space serves not only a physical function but also symbolizes the rights and freedoms of individuals to live their lives [8]. According to Ozsoy (2010), public spaces are accessible to all citizens regardless of gender, race, ethnicity, age, or socioeconomic status. These spaces encompass both man-made environments and natural areas that the public can access free of charge, such as roads, squares, residential areas, shopping centers, and open parks [9]. Carmona et al. (2011) further noted that public spaces, provided they are not restricted, or are freely accessible during daytime hours, play a significant role in urban life [10].

Public spaces comprise various elements, including pathways, roads, open areas, canals, trees, and buildings, facilitating interactions between people. Their functions and usage vary depending on factors such as shape, size, and proximity, which influence daily life. Public spaces can generally be classified into two main categories: Urban Space and Open Space. Urban Space refers to areas surrounded by built structures, such as roads and buildings, while Open Space encompasses naturally occurring or intentionally designed spaces, such as parks or sports fields. At the city level, Public Open Space refers to outdoor areas where people gather and interact, serving as central elements of urban structures and hubs for cultural and social life [11]. Madden (2021) emphasized that Public Open Space is an essential component of urban society, offering relaxation and respite from the busyness of urban life. Examples include pedestrian walkways, public parks, squares, and open plazas. These spaces foster cultural and traditional activities, promoting shared experiences and community engagement [12]. Madden also identified four key factors for measuring the quality of public spaces: accessibility and linkage, comfort, activities, and sociability. Successful public spaces are characterized by their ability to attract a high proportion of users, who consciously choose to gather there. Madden observed that women often

constitute the majority of users in such spaces, likely due to their selectivity regarding adequate seating, safety, and overall comfort [12]. Jacobs (1961) argued that promoting diverse activities and effective use of public spaces is integral to urban development and successful city growth [13]. Public parks, as a type of public open space, are physical areas that are open and accessible to all. They serve as hubs for various activities such as exercising, relaxing, socializing, and engaging in conversations. These activities are supported by the communities living nearby or those utilizing the spaces, reinforcing the significance of public parks in urban life [13].

2.2. Previous Research Related to Factors Affecting Elderly Using Public Park

Van Puyvelde et al. (2023) investigated park features that encourage visitation among older adults in Belgium and found that high-quality, accessible walking paths, natural elements, vegetation, openness, structural park layout, and sufficient seating of good quality significantly influenced park use [14]. Similarly, Kou et al. (2021) examined physical environmental factors affecting older adults' park use in the UK and identified eight key features: park accessibility, natural elements, amenities, sports facilities, maintenance and aesthetics, walking and cycling infrastructure, safety, and slope [15]. Moreover, the National Recreation and Park Association (2014) suggested that the conditions of the sidewalks and aesthetics are key factors to take into account when building a safe route to park. It is important to make walking to parks inviting to residents by introducing tree-lined streets, creating a visually appealing and clean environment [16].

In China, Huo et al. (2024) studied landscape design for healthy aging-in-place and emphasized that elderly residents have complex needs, including safety, comfort, health, social interaction, and spiritual fulfillment [17]. Veitch et al. (2022) explored park features influencing older adults' use of public parks and highlighted the importance of shade trees, a peaceful and relaxed setting, and walking paths. Regarding built environment factors [18]. Parra et al. (2010) identified land-use mix and connectivity as influential for older adults' park use [19]. Additionally, Mahmood et al. (2012) found that feelings of safety, security, peer support, and community programs were associ-

ated with increased park use among older populations ^[20]. Nikolopoulou (2004) proposed that climate conditions—such as sunlight, temperature, humidity, and wind—significantly shape the experiences of public park users. They recommended incorporating seasonal considerations into park design, including features such as roofs, awnings, and moisture-resistant, quick-drying furniture to mitigate issues caused by rain. These features allow visitors to choose between direct sunlight, filtered sunlight under trees, or shaded areas ^[21].

In Japan, Prompan (2023) studied the factors influencing the elderly's visit to and an exercise in public parks during the Covid-19 pandemic in Tokyo and he found that Japanese elderly appreciated the liveliness, contact with nature, access to social space for their age group, cleanliness and safety, and various atmospheres and activities offered by the park ^[22]. Motomura et al. (2024) studied the park proximity and older adults' physical activity and sedentary behavior in dense urban areas in Japan, and they investigated that the number of parks within a 1600-m. buffer ^[1] around participants' homes, as well as proximity to these parks is associated with more breaks in sedentary behavior among Japanese older adults ^[23].

In Singapore, an Asian country where has stepped into an aging society since 1999 and a well-known green city despite its high population density, SIA et al. (2023) studied the use and non-use of parks people in Singapore and they reported on a study using the Theory of Planned Behavior (TPB) to understand the extent of influence that accessibility, nature orientation, social norm, and availability of time has on the use and non-use of parks ^[24].

In Thailand, limited research has addressed factors influencing park use among the elderly. Suwannawong (2018) studied factors affecting elderly engagement in physical activities at public parks in Bangkok and found that loca-

tion, companionship, and a variety of activities (e.g., walking, jogging, running) were significant contributors ^[25]. Tantimekabut and Charnwasununth (2020) investigated public park use in Bangkok and identified activity type, usage period, duration, frequency, travel mode, and travel time as factors influencing older adults' park usage ^[26]. Prompan and Kantachote (2022) explored the development of public green spaces for the elderly in Bangkok, revealing that preferences for specific activities, safety concerns, and facilities, as well as built-environment aspects, were associated with park usage ^[27].

This empirical approach builds on previous studies, which explain that factors associated with public park use include park usage behavior, accessibility, diversity, seating arrangements, climate and weather conditions, aesthetics, safety, and opportunities for social interaction. These factors are used as independent variables in the analysis model for this study.

3. Research Methodology

This paper investigates the factors influencing the use of public parks among the elderly in Bangkok, Thailand. Data were collected through a questionnaire survey involving 299 respondents, of which 254 completed the online questionnaire, and 45 participated in an onsite survey. The questionnaire consisted of two parts: (1) Respondent demographics: This section collected individual data such as gender, duration of public park use, mode of transportation to public parks, and whether the respondent visited the park alone or with others. (2) Attitudinal questions: This section focused on factors influencing public park use. A total of 21 questions, as outlined in **Table 1**, were included. Responses were measured using a five-point Likert scale, ranging from “strongly disagree” (=1) to “strongly agree” (=5), as shown in **Table 2**.

Table 1. Questions about Factors Affecting Elderlies' Park Use Choices.

Variable Groups	Variables	Attitudinal Questions on Factors Influencing Public Park Usage among the Elderly
Accessibility attributes (ACC)	ACC_1	If public park is easily accessibility and comfortable, you will use that public park.
	ACC_2	If public park has clear directional signage and maps, you will use that public park.
	ACC_3	If public park is well-connected and easy to navigate, you will use that public park.
Diversity attributes (DIV)	DIV_1	If public park regularly hosts special events or exhibitions, you will use that public park.
	DIV_2	If public park offers diverse activities, such as fitness areas and relaxation zones, you will use that public park.
	DIV_3	If a public park offers more restaurants or beverage stalls, you will use that public park.

Table 1. Cont.

Variable Groups	Variables	Attitudinal Questions on Factors Influencing Public Park Usage among the Elderly
Seating arrangement attributes (SEAT)	SEAT_1	If a public park has ample seating areas for relaxation, you will use that public park.
	SEAT_2	If a public park allocates tables and chairs for multipurpose use, you will use that public park.
	SEAT_3	If a park offers a variety of seating options such as benches, reclining chairs, picnic tables, and multifunctional chair-desk setups, it enhances you to use that public park.
Temperature and weather attributes (TEM)	TEM_1	If public park has more shared areas from trees, you will use that public park.
	TEM_2	If public park feature ponds or fountains to increase air humidity, you will use that public park.
	TEM_3	If public park features enclosed areas equipped with air-conditioned spaces, you will use that public park.
Aesthetic attributes (AES)	AES_1	If public park is well-designed with green spaces and landscapes, you will use that public park.
	AES_2	If a public park is well-known for photogenic qualities, attracting visitors who enjoy taking photos, you will use that public park.
	AES_3	If public park offers a calm and relaxing atmosphere that creates a lasting positive impression, you will use public park.
Safety attributes (SAFE)	SAFE_1	If public park is equipped with a highly efficient security system, including guards and CCTV coverage throughout the area, you will use that public park.
	SAFE_2	If public park is regularly maintained and clean, you will use it.
	SAFE_3	If public park is well-lit at night and adequate lighting in pathway, seating areas, and activities zone, you will use that park.
Social interaction Attributes (SOC)	SOC_1	Is public park a meeting place for friends and acquaintances, offering a relaxed and open environment?
	SOC_2	Is public park used by multi generations?
	SOC_3	Public Park is as spaces for meeting new people, isn't it?

Table 2. Scoring Range of Likert Scale of the Survey.

Evaluation Criteria	Value	Range
Strongly Disagree	1	1.00–1.80
Disagree	2	1.81–2.60
Neither/Nor Agree	3	2.61–3.40
Agree	4	3.41–4.20
Strongly Agree	5	4.21–5.00

The finding factors affecting elderlies' public park use is estimated by the binary logistic regression model. The number of effective samples in the analysis model should be higher than the number of independent variables 10 times at least as recommended by Peduzzi et al. (1996) ^[28]. The data analysis and model estimation were conducted by using the SPSS program version 27th. The binary logistic regression model is expressed in Equation (1)

$$\ln\left(\frac{p_1}{1-p_1}\right) = X\beta + L\alpha + N\lambda + M\eta + V\chi + W\delta + Y\kappa + Zi + \varepsilon \quad (1)$$

Where p_1 is the probability of using a public park; X , L , N , M , V , W , Y , Z , are the vectors of factors related to elderlies' public park use: use behavior characteristics, accessibility attributes, diversity attributes, seating arrangement attributes, temperature and weather attributes, aesthetic attributes, safety attributes and social interaction attributes; ε is

the logistically distributed error; β , α , λ , η , c , d , k , i and are the vectors of the model parameters.

4. Results and Discussion

Sample Characteristics

According to the data summarized in **Table 3**, this research includes 299 effective respondents, all elderly. The majority is males who use public parks for less than one hour per visit, travel to the parks by private car, and often visit the parks with others, such as friends or family members. Among the respondents, 197 seniors (aged over 60) residing in Bangkok reported regular use of public parks (65.89%). Males are more likely to use public parks, while females tend to avoid them, often preferring pseudo-public spaces or shared areas around shopping malls instead of stand-alone public parks. Elderlies who spend less than one hour at a park are more likely to choose public parks over other shared spaces. Additionally, most seniors prefer driving their cars rather than using public transportation to reach the parks. Elderly respondents who visit parks with companions are also more likely to use public parks compared to those who visit alone.

Table 3. Summary of Respondents' Behavior of Public Park Usage.

Variables	Overall	Use Park	No Use Park
Number of participants (persons)	299	197	102
Gender			
Female (%)	148	44.67	58.82
Male (%)	151	55.33	41.18
Duration of park use			
More than 1 hour (%)	52	22.34	7.84
Less than 1 hour (%)	247	77.66	92.16
Using public transport to park			
Yes (%)	32	13.20	5.88
No (%)	267	86.80	94.12
Using public park alone			
Yes (%)	98	25.38	47.06
No (%)	201	74.62	52.94

From the collected sample data of 299 individuals, there are 151 males and 148 females, accounting for 50.50% and 49.50%, respectively. The summary of sample's average scores towards factors affecting the use of public spaces is shown in **Table 4**. It shows that the highest average scores are ACC_1, DIV_2, SAFE_3, that is, 4.21, 4.10, and 4.07, respectively. Only ACC_1 is interpreted as strongly agree. The lowest average scores are TEM_2, ACC_2, and TEM_1, that is, 3.57, 3.58, and 3.61, respectively. These results suggest that elderly respondents place the greatest importance on "easy access to public parks," emphasizing the need for convenient design features such as well-connected transportation networks, ample parking, and clear pathways to encourage park usage. In contrast, the least importance is assigned to "increasing air humidity in public parks" through the addition of ponds, fountains, or other water features.

Table 4. Summary of respondents' attitudes towards factors affecting public park usage.

Variable groups	Variables	Mean	S.D.	Level Agree
Accessibility attributes	ACC_1	4.21	1.05	Strongly Agree
	ACC_2	3.58	1.20	Agree
	ACC_3	3.94	1.15	Agree
	DIV_1	3.87	1.08	Agree
Diversity attributes	DIV_2	4.10	1.04	Agree
	DIV_3	3.74	1.08	Agree
Seating arrangement attributes	SEAT_1	3.74	1.16	Agree
	SEAT_2	3.62	1.08	Agree
	SEAT_3	3.80	1.14	Agree

Table 4. Cont.

Variable groups	Variables	Mean	S.D.	Level Agree
Temperature and weather attributes	TEM_1	3.61	1.18	Agree
	TEM_2	3.57	1.24	Agree
	TEM_3	3.71	1.19	Agree
Aesthetic attributes	AES_1	3.90	1.16	Agree
	AES_2	3.96	1.08	Agree
	AES_3	3.89	1.11	Agree
Safety attributes	SAFE_1	3.92	1.19	Agree
	SAFE_2	4.00	1.17	Agree
	SAFE_3	4.07	1.04	Agree
Social interaction attributes	SOC_1	3.85	1.10	Agree
	SOC_2	3.88	1.06	Agree
	SOC_3	3.79	1.19	Agree

5. Model Estimation and Results

According to the questionnaire survey, all 299 respondents were interviewed the possibility (Yes or No) of choice of using a public park of elderlies in Bangkok. 197 ones use public parks. As for the binary logistic regression model in **Table 5**, the coefficient values are estimated by using the maximum likelihood method proved by the collected data. Behavior characteristics (gender, using public park more than 1 hour, traveling to the park by mass transit systems, and using a park alone) and 25 aspects related to factors influencing the use of public parks of elderly are the independent variables but using public parks (Yes/No) is the dependent ones. The significant factors in the model recommend any public policy makers and park designers what factors of the use of public parks affect to elderly to use public parks in Bangkok. The results show that the coefficients for explanatory variables including "ACC_1", "SAFE_1" and "SOC_2" are statistically significant at $p < 0.05$ while "Using park more than 1 hour", "DIV_3", "SEAT_1", "AES_2", "AES_3" and "SOC_1" are statistically significant at $p < 0.01$. 6 aspects of "Using park more than 1 hour", "ACC_1", "SEAT_1", "AES_3", "SAFE_1" and "SOC_1" show the positive sign of coefficient while 3 aspects of "DIV_3", "AES_2" and "SOC_2" are the negative sign of coefficient. It implies that if there are many special events or exhibitions in public parks, the elderly are less likely to use public parks. In addition, if a public park is well-known for its photogenic qualities, a lot of visitors come to enjoy taking a photos there, elderlies tend not to use that public park. Also, if public parks are used for

multi-generations and many events of multi-generations are set there, elderlies tend not to use that public park. Among any significant predictors, “DIV_3” is the best predictor of the use of public parks for the elderly because of the coefficient of magnitude. If public parks regularly host special events or exhibitions inside, they become dynamic and engaging spaces for visitors who are multi-generations and it makes fewer park spaces for activities of elderlies. They are more likely to use public parks less on the day of having special events. The odds ratio value associated

with “DIV_3” is negatively high, -4.181. If holding a special event or exhibition in a public park is raised 1 event, the probability of using a public park for older adults decreases by 4.181 times. In terms of the use of public parks, the odd ratio value of “AES_3” is positively high, 2.371. It means that if public parks providing a calm and relaxing atmosphere such as lush greenery, quiet zone, comfortable amenities that serve as peaceful retreats for elderlies to unwind and recharge, the probability of the use of public parks by elderlies increases by 2.371 (See **Table 5**).

Table 5. Binary Logistic Regression Results.

Variables	B	S.E.	p	Exp(B)
Park Use Behavior characteristics				
Gender (Male =1)	0.712	2.072	0.150	0.359
Use Park more than 1 hours (Yes =1)	0.997	11.650	0.001**	30.029
Use Public transport (Yes = 1)	1.108	0.339	0.561	1.906
Alone (Male =1)	0.712	0.101	0.750	1.254
Accessibility attributes				
ACC_1	1.172	0.525	0.026*	2.810
ACC_2	0.404	0.385	0.293	1.498
ACC_3	0.851	0.477	0.074	2.343
Diversity attributes				
DIV_1	0.235	0.520	0.651	1.265
DIV_2	1.187	0.714	0.096	3.276
DIV_3	-4.181	0.956	0.000**	0.015
Seating arrangement attributes				
SEAT_1	1.964	0.619	0.002**	7.129
SEAT_2	-0.784	0.586	0.181	0.457
SEAT_3	0.734	0.576	0.202	2.083
Temperature and weather attributes				
TEM_1	-0.050	0.630	0.936	0.951
TEM_2	-0.997	0.600	0.096	0.369
TEM_3	0.191	0.497	0.701	1.210
Aesthetic attributes				
AES_1	0.982	0.816	0.228	2.671
AES_2	-1.890	0.688	0.006**	0.151
AES_3	2.371	0.897	0.008**	10.705
Safety attributes				
SAFE_1	1.655	0.716	0.021*	5.235
SAFE_2	-0.294	0.588	0.616	0.745
SAFE_3	1.062	0.575	0.065	2.892
Social interaction attributes				
SOC_1	2.245	0.737	0.002**	9.442
SOC_2	-1.480	0.771	0.049*	0.228
SOC_3	0.953	0.604	0.115	2.592
Constant	-14.148	3.114	0.000**	0.000

Table 5. *Cont.*

Variables	B	S.E.	<i>p</i>	Exp(B)
Number of observations	299			
Chi-square	11.811			
Initial -2 Log Likelihood	383.789			
Step 1 -2 Log Likelihood	113.944			
Cox & Snell R Square	0.594			
Nagelkerke R Square	0.822			
Percentage correct (%)	92.0			

Notes: ** Significant at $p < 1\%$; * Significant at $p < 5\%$.

6. Conclusions and Recommendations

This study examines the factors influencing public park use among the elderly in Bangkok, Thailand. By 2024, Thailand had transitioned into a complete-aged society, with 20% of its population aged 60 and above. This trend is projected to continue, and by 2030, the nation is expected to become a super-aged society, with 28% of its population aged 65 and older. To accommodate this demographic shift, urban land development projects—including residential areas, shopping malls, government offices, and public parks—must adapt to address the needs of this growing population segment. The research offers valuable insights for urban planners and public park designers aiming to promote daily park use among the elderly, a group currently underrepresented in park attendance. Furthermore, the findings provide recommendations for the future development of public parks in Bangkok to better serve elderly users. Public parks offer numerous benefits for individuals, communities, and the environment. For the elderly, parks contribute to better physical and mental health and provide opportunities for social interaction. They serve as gathering places for friends, families, and community events, fostering social connections and reducing loneliness. Additionally, public parks help mitigate pollution by functioning as natural air filters through trees and plants, while also offering diverse activities for users. Importantly, public parks contribute to creating safer urban environments. Research suggests that well-maintained parks with proper security measures can reduce crime rates. Moreover, parks enhance the visual appeal of urban areas, create pleasant environments for residents, and increase property values in their vicinity.

In this research, 299 elderly respondents (aged

60 years and older) were surveyed. Among them, 66% were public park users, while 34% preferred other shared spaces, such as pseudo-public parks located around shopping malls or mixed-use buildings. Regarding park usage behavior, most respondents were male, used parks for less than one hour per visit, commuted to parks using their personal vehicles, and typically visited alone. Males were more likely to use public parks, whereas females tended to prefer alternative shared spaces. Additionally, the elderly who drove to parks and visited alone were more likely to utilize public parks.

Regarding elderlies' attitudes toward factors associated with public park use, "easy access to public parks" emerged as the most critical requirement. Many elderly respondents reported driving to parks due to difficulties navigating pedestrian routes or using public transportation. Some noted that driving was the most convenient option. A lack of physical transport infrastructure further discouraged park usage. To address this, barriers to walkability should be removed, and infrastructure improvements such as pathways, pedestrian crossings, pedestrian bridges, pavement shoulders, pedestrian signals, and crosswalks should be implemented in areas surrounding public parks.

The study also found that elderlies were more likely to use public parks for longer durations (over one hour) when parks offered easier accessibility, ample seating areas, a calm and relaxing atmosphere, and highly efficient security systems, including CCTV and experienced security staff. Parks that served as gathering places for socializing with friends and acquaintances further encouraged usage. Conversely, parks with extensive areas allocated to restaurants and beverage stalls were less likely to attract elderly users.

Based on the research findings, several recommendations can be made for urban planners regarding the design

of park features suitable for the elderly in Bangkok. First, greater emphasis should be placed on creating easy access to public parks through various modes of transport, including walking, cycling (non-motorized transport), and public transportation. Additionally, providing sufficient parking spaces for the elderly who drive to parks is essential. Safe and accessible routes to parks should be redesigned, incorporating effective wayfinding systems, such as landmarks, signage, distance markers, and points of interest, to facilitate easy navigation.

Second, parks should prioritize creating a calm and relaxing atmosphere to serve as peaceful retreats for elderly visitors seeking to recharge. This can be achieved by incorporating lush greenery, quiet zones, and comfortable amenities.

Third, efforts to attract tourists or visitors for photography may not effectively encourage the elderly to use parks more frequently or for extended periods. Instead, public parks for the elderly should focus on promoting not only physical activities but also social and celebratory activities.

Finally, designing comfortable, spacious, and high-quality open spaces is crucial for attracting elderly users, as it provides opportunities for meaningful social interaction. Additionally, offering a variety of programs and activities tailored to elderly needs can make parks more appealing and encourage greater usage.

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All data presented in this study are available in the article.

Conflicts of Interest

The author declares that there is no conflict of interests regarding the publication of this manuscript. In addition, the ethical issues, including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, and redundancies have been completely observed by the author.

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