



" Harmony in Spaces : Blending Heritage , Nature and Design "

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ANALYZING AGE-FRIENDLY DESIGN PREFERENCES FOR URBAN PUBLIC PARK , KUANTAN, PAHANG

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ABSTRACT

The intention of this research is to assess and examine age-friendly design concepts for Kuantan, Pahang's urban public parks. The research examines how well existing design techniques promote inclusivity, accessibility, and participation in urban public park areas, with a particular focus on the requirements and preferences of the aging population. With a focus on improving the general well-being and quality of life for elderly's, the research investigates the integration of age-appropriate amenities, accessible features, and recreational possibilities through a thorough literature review and empirical analysis. In addition, the research looks at how smart technology and creative solutions may be used to enhance the park experience for aging by enabling easy navigation, social interaction, and access to relevant health and wellness data. The research initiative requires to give actionable insights and suggestions to assist the creation of sustainable and comprehensive urban design strategies that address the many and changing demands of Kuantan, Pahang's aging population.

Keywords: *age-friendly*, *design preferences*, *aging population*, *urban public parks*

INTRODUCTION

The encouraging of active and healthy lifestyles among aging has become

a key endeavor in an era where the world population is aging. The idea of "active aging," which emphasises older individuals' participation in mental, social, and physical activities, is becoming more widely acknowledged for its beneficial effects on aging population ' overall well-being(Ayoubi-Mahani et al., 2023). At the same time, the emergence of smart urban public parks—which incorporate customized facilities and cutting-edge technologies—offers a viable means of fostering the concepts of active aging in public areas. The idea of urban public parks might be completely changed by this integration, becoming dynamic, inclusive, and networked spaces that respond to the changing demands and tastes of an aging populace(Boavida et al., 2023).

Communities may design holistic environments that prioritise aging population's physical, cognitive, and social well-being by fusing the inventive potential of smart urban public parks with the concepts of active aging. This kind of approach aims to support older adults in maintaining an active lifestyle while also helping them feel like they belong and have a purpose in life(Sharyl Ng Yun Hui and Ye Zhang, 2021). Customised amenities found in these parks, such as wellness centres, accessible trails, and exercise equipment, operate as channels for encouraging aging population to be more active and independent in their daily lives. Additionally, the integration of interactive technology improves aging population cognitive stimulation and educational engagement, which benefits their mental health and general quality of life. Examples of these technologies include augmented reality trails, health monitoring systems, and digital informative resources(Boavida et al., 2023; Seifert et al., 2019).

In the context of active aging, the importance of socialisation and community participation cannot be emphasized. Smart urban public parks are dynamic centres for promoting human connections and addressing the pervasive problem of social isolation among the elderly. They can accommodate a wide range of social activities, events, and customised programmes for aging population. These areas promote meaningful connections and social engagement among the elderly population while also offering forums for skill development, information sharing, and the creation of a common goal(Boavida et al., 2023).

Moreover, the incorporation of safety and accessibility elements

in these parks plays a crucial role in guaranteeing a safe and welcoming atmosphere for aging population . Elderly people with a range of physical abilities may participate in the park with the support of smart security systems, well-lit walkways, and universally built facilities. These features allow them to move around and use the amenities without difficulty. These parks uphold the idea of equity by placing a high priority on safety and accessibility, highlighting the significance of designing environments that are hospitable and accommodating to everyone, regardless of age or physical ability(Frace, 2020).

The main of this research is to improve the urban planning of urban public parks in Kuantan City, Pahang, in order to better meet the requirements and preferences of the elderly population, encouraging social interaction, active and healthy lives, and general elderly well-being. The research is centred on the following goals is to understanding the specific needs of the aging population by get a thorough understanding of the unique physical, cognitive, and social requirements of Kuantan City's aging population, with an emphasis on their preferences for park features, leisure pursuits, and social interaction possibilities. The second objective is integration of age-friendly design principles is to ensure that urban public parks are planned and developed with age-friendly design concepts and criteria-accessibility, safety, comfort, and inclusivity-in mind, and to include these design standards into the process, so as to meet the various needs of the aged. The last objective is utilization of smart technologies and innovations by investigate how smart technology and creative solutions may be incorporated into urban public parks with the goal of improving aging population ' park experiences, making pertinent information and services easier to obtain, and encouraging active aging and social interaction.

Regarding the aging population's preferences for urban public parks in Kuantan City, Pahang, as it relates to urban planning, there are substantial gaps in the literature that require prompt attention and thorough investigation. The creation of inclusive and successful urban design solutions has been hampered by these research gaps, which revolve around a number of important factors and lead to a fragmented knowledge of the particular requirements and difficulties that the aging population has when accessing and using urban public parks. A notable research void is the inadequate focus on regionalized research initiatives, and the research gap focuses

attention on the lack of focus on urban public park design as a means of promoting holistic health and well-being among the aging population. The precise leisure pursuits, green areas, and health-promoting programs that can improve the physical, emotional, and social well-being of Kuantan City's aging population have not been sufficiently examined, hindering the creation of all-encompassing plans to encourage elderly's to lead active, healthy lifestyles by using urban public parks as surroundings that are friendly and favorable to their general well-being. In order to create inclusive, approachable, and interesting urban environments that meet the varied and changing demands of Kuantan City, Pahang's aging population, it is essential to fill in these important research gaps. A more nuanced understanding of the particular opportunities and challenges can be attained through thorough and focused research initiatives, opening the door to the implementation of practical and sustainable urban design solutions and promoting an environment that is more welcoming and supportive of the aging population in the city.

In conclusion, the convergence of active aging principles and smart urban public parks presents a transformative paradigm in the realm of urban planning and community development. It signifies a commitment to fostering a society where the elderly are not only supported in maintaining their physical and mental vitality but are also valued as integral members of a thriving and interconnected community. The establishment of such dynamic and inclusive spaces underscores the imperative of recognizing the evolving needs of an aging population and underscores the potential of urban environments to serve as catalysts for holistic well-being and societal inclusivity.

LITERATURE REVIEW

The literature on urban public park design choices that cater to Kuantan City, Pahang's aging population displays a complex and dynamic debate that highlights many important characteristics that are essential to comprehending and creating inclusive and accessible urban spaces. A review of the body of research indicates a number of important discoveries and patterns that have influenced the conversation on the creation and planning of elderly-friendly urban public parks in Kuantan City.

Urban Public Park

It is important to provide age-appropriate urban public parks in order to guarantee that aging population may take advantage of and enjoy these areas. Based on the research (Abdelhamid & Elfakharany, 2020), Al-Shalalat Park in Alexandria, Egypt, is a good illustration of an urban public park that caters to older people. In order to make the park more accessible and meet the requirements of aging population, it was remodelled. The park currently features lots of shade and seating, accessible routes and entrances, and a range of recreational amenities to meet the requirements of the community, which includes aging population. In the centre of the busy metropolis, the park offers a tranquil and natural setting that is wellmaintained and kept clean.

Overall, It is essential to construct urban public parks that are agefriendly, safe, cosy, and stimulating for aging population in order to guarantee that they may take use of and enjoy these areas. Urban public parks may develop into wonderful public areas that support aging population ' social, emotional, and physical health by adhering to these design principles. The effective renovation of Alexandria, Egypt's Al-Shalalat Park highlights the significance of acknowledging the interests and requirements of aging population and modifying public areas to accommodate their evolving demands.

Design Preference Of A Good Urban Public Park

Urban public parks are vital places for people to enjoy nature and greenery while also supporting a city's sustainability. In order to guarantee that the park is extensively utilised and relished by the community, it is important to create an excellent urban public park that caters to user preferences.

In the design of a good urban public parks, prioritizing abundant greenery, diverse trees, and natural elements is imperative, as these elements serve as vital components for providing a much-needed escape from the urban landscape. By integrating ample green spaces, flourishing trees, and diverse natural elements, designers can create a harmonious balance that fosters physical and mental rejuvenation for park users, promoting a sense

of tranquility and well-being within the bustling cityscape. Safety and security also considerations are pivotal in the design of urban urban public parks. Emphasizing well-lit pathways and open spaces, while strategically minimizing hidden corners, plays a critical role in fostering a sense of security among park users. By ensuring clear sightlines and eliminating secluded areas, designers can create an environment that promotes a feeling of safety, encouraging visitors to freely enjoy the park's amenities and recreational activities without apprehension. Incorporating these design preferences not only enhances the park's overall appeal but also cultivates a welcoming and secure space for the community to gather and engage in various leisure pursuits(Ahmad et al., 2011).

Beside, fostering community involvement in the design and planning process of urban public parks is vital for creating spaces that resonate with the specific needs and aspirations of local residents. Incorporating tools such as surveys, focus groups, and public meetings enables designers to garner valuable insights and feedback directly from the community, thereby ensuring that the park's layout, amenities, and overall ambiance align with the preferences and requirements of its users. By actively engaging the community, designers can establish a sense of ownership and pride among residents, fostering a stronger sense of belonging and encouraging active participation in the park's maintenance and utilization, ultimately leading to a more inclusive and vibrant community space(Shahhosseini et al., 2020).

To sum up, creating an urban public park that is safe, well-maintained, green, inclusive, and meets the many requirements of the community is essential to making sure that everyone uses and enjoys the park. Urban public parks may develop into fantastic public areas that support the social, psychological, and physical health of the neighbourhood by adhering to these design principles.

Age-Friendly Of Urban Public Park

To guarantee that aging population can take use of and enjoy these public places, age-friendly urban public park design is essential. Based on the research(Onose et al., 2020), which at Chicago's Millennium Park. It serves as an effective illustration of an urban public park that is age-friendly.

The park has gained popularity among both locals and visitors because to its array of cultural and recreational offerings, which include ice skating, concerts, and exhibitions. The park offers lots of shade and sitting, accessible walkways and entrances, and a range of recreational amenities to meet the requirements of the community, which includes aging population . In the centre of the busy metropolis, the park offers a tranquil and natural setting that is well-maintained and kept clean.

To conclude, It is essential to construct urban public parks that are age-friendly, safe, cosy, and stimulating for aging population in order to guarantee that they may take use of and enjoy these areas. Urban public parks may develop into wonderful public areas that support aging population ' social, emotional, and physical health by adhering to these design principles.

Design Preferences Integrated With The Aging Society

It is imperative to incorporate age-friendly design ideas into urban urban public parks' layouts to guarantee that aging population can take advantage of and appreciate these areas. The Urban Comprehensive Park is an example of a successful urban public park that caters to the unique demands of the aging population. Based on the search results, China has been focused on age-friendly garden design in urban areas. In order to give aging populationa secure and comfortable space for physical exercise, socialising, and leisure, the park was created. For example in (Liu, 2021) research, A high rate of population aging in China has sparked an increase in interest in age-friendly design for urban public areas. The case research of WANSHOU Park serves as an illustration of age-appropriate garden design in China. The park offers lots of places to sit, accessible pathways and entrances, and a range of recreational amenities to meet the requirements of the community, which includes aging population .

Based on the case research of WANSHOU Park"(Liu, 2021) offers recommendations for designing age- friendly gardens in accordance with Chinese garden design standards, worldwide age-friendly cities in Europe, and LEED standards. The revised requirements indicated above have also led to the inclusion of child-friendliness. 29 reports that described WANSHOU Park as an age-friendly garden, including basic data and rating records on its surroundings and amenities, were gathered for the case research.

The design will have a great lot of opportunity to address issues related to aging through the addition of more kid- friendly elements and installations throughout the park.

Specific Need Of The Aging Population And Society

It is essential to create urban public parks that cater to the unique requirements of the elderly community in order to guarantee that aging populationmay get pleasure and use from these areas. The findings of the research indicate that while creating urban public parks, particular demands of the aging population should be taken into account. Physical exercise, a sense of security, accessibility, social contact, upkeep and cleanliness, and nature and greenery are some of these demands.

The Urban Comprehensive Park is one instance of a successful urban public park that caters to the particular demands of China's aging population. The park was created with the intention of giving aging population a cosy and secure space for exercise, socialising, and leisure. The park offers lots of places to sit, accessible pathways and entrances, and a range of recreational amenities to meet the requirements of the community, which includes aging population. In the centre of the busy metropolis, the park offers a tranquil and natural setting that is well-maintained and kept clean. This makeover serves as an example of how crucial it is to acknowledge the unique requirements of aging population and modify public areas to accommodate their evolving demands and preferences(Zhai et al., 2018).

Urban planners and designers should also take into account the distinct demands that aging population may have in contrast to the normal park target group, which is often families and/or children. In order to encourage aging population to spend time in urban public parks and form relationships and in order to offer a break from the city and support both physical and mental well-being, urban public parks ought to be abundant in vegetation, trees, and other natural features.

Design Preferences Integrated Utilization Of Smart Technologies And Innovations

The integration of intelligent technology and inventive approaches

is progressively becoming indispensable in managing the changing requirements of an aging populace in urban public parks. The ability of technology to improve elderly folks' quality of life in public areas is becoming increasingly apparent as cities throughout the world struggle with the effects of an aging population.

The UCLA Luskin Centre for Innovation in the United States created the SMART Parks Toolkit to enable park administrators, designers, and municipal planners to integrate technology into parks for the benefit of local communities. SMART parks are easily accessible, resilient to climate change, water- and energy- efficient, low maintenance, and contribute to community health and safety by utilising technology (environmental, digital, and materials) to reflect and fit within their cultural and environmental surroundings. The toolkit is intended for activists, municipal and park management, and everyone else who wants to use technology in parks(Kelsey Jessup, 2018).

In the final analysis, to be able to better serve communities, park administrators, designers, and municipal planners may integrate technology into parks with the help of the SMART Parks Toolkit. SMART Parks employ technology to adapt and blend in with their natural and cultural surroundings. They are also easily accessible, climate change adaptable, energy and water efficient, simple to maintain, and contribute to community health and safety. These parks provide a number of advantages to the environment and the people they serve by utilising cutting-edge technologies and creative design ideas.

METHODOLOGY

Overview

To better understand the preferences of various age groups of in level of aging population, the research might benefit from using a quantitative technique methodologies. Numerical data be gathered and analyzed when using quantitative approaches. In order to provide design solutions that precisely address the demands of older users, this research highlights

how crucial it is to include them in all stages of the research, design, and implementation of smart urban public parks.

Site Of The Research

Taman Gelora Kuantan, Taman Bandar Kuantan, Taman Kejiranan Jalan Teluk Sisek, Taman Tasik Kotasas, and Taman Gelora were the five urban public parks that were choose in the research. These parks were choose because they are important for providing leisure opportunities for Kuantan City's aging population and they were perfect for the research due to their size, location, and current amenities. This selection site to determine the requirements and preferences of Kuantan City's aging population for age-friendly urban public parks through an analysis of these parks.

Taman Gelora Kuantan

Taman Gelora Kuantan was located between 3 km from Kuantan's City Centre. This park's amenities and conditions were chosen based on its size of 67.12 acre. This urban public park is a popular urban public park located at Gelora Beach in Kuantan, Pahang also known as eco-tourism urban public park and this area can contribute to the preservation of biodiversity. A variety of recreational and nature experience activities, especially for the aging population, its advantageous location can enhance a visitor's attractiveness which might have a positive economic impact on nearby companies and the neighborhood and serve as green spaces and enhance the locale's overall ecological connectedness and aid in the fight against pollution, promote biodiversity, regulate humidity and temperature, and release environmental advantages to the surrounding the area.



Figure 2. Satellite map of Taman Gelora Kuantan

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Taman Bandar Kuantan

Taman Bandar Kuantan was located between 6 km from Kuantan's City Centre. This park's amenities and conditions were chosen based on its size of 43.65 acre. This urban public park is a strategically positioned urban public park. It is the perfect place for a variety of leisure and recreational activities and also known as healthy park, because of the park near to the sport centre, Majlis Sukan Pahang. Especially for the aging population and its strategic position because there's provide a lot of exercise equipment and jogging area space. The park's location within the city makes it conveniently accessible and well-connected to government and corporate office centers as well as commercial areas and institutional area.



Figure 3: Satellite map of Taman Bandar Kuantan

Taman Kejiranan Jalan Teluk Sisek

Taman Gelora Kuantan was located between 3.5 km from Kuantan's City Centre. This park's amenities and conditions were chosen based on its size of 4.86acre. This urban public park located near to the location of Taman Gelora . This park give residents somewhere to relax and engage in recreational activities like strolling, and working out. When situated next to eco-tourism parks, they can provide extra recreational opportunities for locals and tourists, enhancing the area's attractiveness. Because of its location inside the city, the park is well-served and has good access to surrounding residential neighborhoods.



Figure 4. Satellite map of Taman Kejiranan Jalan Teluk Sisek

Taman Tasik Kotasas

Taman Tasik Kotasas was located between 8 km from Kuantan's City Centre. This park's amenities and conditions were chosen based on its size of 22.59 acre. This urban public park located quite far from other urban public but still in the urban area . This park have the social cohesiveness, acting as centres for work, play, rest, and exercise, and eventually enhancing urban populations' health and well-being because it surrounding by the residential area. The site location provides a range of amenities and services, such as playgrounds, picnic spots, and walking trails.



Figure 4. Satellite map of Taman Tasik Kotasas

Procedure Method

The methodological strategy employed in this research is quantitative method oriented and synthesises quantitative methodologies as follows:

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Strategy of collecting data

The technique of collecting and analyzing data to support or refute a theory is known as quantitative research. The steps involved in performing quantitative research include identifying the issue, formulating a hypothesis, organizing the research, selecting the best research technique, gathering and evaluating data. The focus of quantitative research is on objective measurements and the statistical, mathematical, or numerical analysis of data obtained questionnaires methods of data collection. Using Google Forms, have a questionnaire that allowed respondent to gather information . The purpose of the questionnaire was to learn more about the requirements and preferences of the aging population with relation to age-friendly urban public park design features.

Respondent questionnaire

In order to obtain a varied sample of respondents, the questionnaire was disseminated by aging populations. A great deal of information on the requirements and preferences of Kuantan City's aging population was gathered through the data gathering procedure. This method was put into practice by conducting in-person questionnaire in 5 of urban public park in Kuantan, Pahang. It was carried out by collecting questionnaire and asking the aging population to respond to the form using Google Form by provide them to get the link or quick respond (QR Code) at the park. There are four sections on the survey form . Section A, the first section, focuses on the demographics and data of the aging population. The second section addresses research objective about preferences for urban public park design. Section C, user satisfaction of urban public parks, is the third section. Comments and suggestions about what could be added or enhanced in urban public parks to improve the experience for the aging population in urban public parks make up the last section which is in section D. This section vital to research since aging population enable to offer thorough and customized feedback, aid in identifying problem areas and possible solutions, and highlight the particular difficulties and concerns that respondent are dealing with.

Analysing Data Collection

From the data collection gathered using a Google Form survey to gather information about the elderly population. The Statistical Package for the Social Sciences (SPSS) was then used to analyze the data and produce tables that could be viewed and understood. This can help determine the

needs and preferences of aging population for parks that are appropriate for their age. It offered insightful information on the requirements and preferences aging population that may be applied to the development and design of the urban public parks.

RESULT AND DISCUSSION

Result

In order to provide insights into the design and implementation of urban public parks that meet the needs of various age groups, encourage active aging, and foster a sense of community in the urban environment, we set out to analyze age-friendly design preferences for urban public parks in Kuantan, Pahang. Surveys, interviews, and questionnaire real methods were all part of the research methodology, which combined quantitative techniques to collect information on Respondent preferences, park visiting patterns, and demographic profiles. For section A : demographic profile & information, The results showed that most of the respondents were female and that a sizable portion of them were 50(71.4%) of person and most of their age ranges are in the 60-69 years old 40 (57.1%). This demographic distribution emphasizes how important it is to take older people' needs into account when designing urban public parks because they make up a sizable share of park visitors. Additionally, the findings demonstrated that most of the respondents said they regularly currently visited urban public parks 63 (90%) and mostly daily come to the park for joining the recreational activity 21(30%), and they strongly preferred parks with a wide range of recreational amenities and good accessibility.

		Statistics						
		Gender	Age	Do you currently visit urban public parks?	How often do you visit urban public parks?	How important is accessibility in a urban public park for you?		
Ν	Valid	69	69	69	69	69		
	Missing	0	0	0	0	0		
Mean		1.71	1.64	1.10	2.32	1.59		

Median	2.00	1.00	1.00	2.00	1.00
Mode	2	1	1	1	1
Std. Deviation	.457	.840	.304	1.118	.846
Variance	.209	.695	.092	1.250	.715
Sum	118	113	76	160	110

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How important is accessibility in a urban public park for you?								
		Frequency	Percent	Valid Percent	Cumulative Percent			
Valid	Very important	41	59.4	59.4	59.4			
	Important	18	26.1	26.1	85.5			
	Neutral	7	10.1	10.1	95.7			
	Not very important	3	4.3	4.3	100.0			
	Total	69	100.0	100.0				

Table 2. Urban Public Park Importance

In Section B which is urban public park design preferences and the respondents must select up to three in the checkboxes, their specific needs of you in urban public park design and amenities are most focus on the Physical activity and health which voted 34 respondents of 69 (48.6%). For the specific design elements or features can be incorporated into urban public parks to make respondents more accessible are Accessible paths and walkways that are well-maintained, free from obstacles and debris, and easy to navigate 42 (60%). In their opinion, urban public parks be designed to ensure the safety and security of them, particularly during nighttime and morning hours by having security personnel and surveillance systems 39 (55.7%) and Accessibility features 34(48.6%). For them, by having sensoroperated facilities can be as solutions be integrated into urban public park design to enhance the experience you and support their health and well-being by smart technology 36(51.4%). Not only that, mental health are the most potential benefits of improving the urban planning of urban public parks to better of the elderly population, encouraging social interaction, active and healthy lives, and general elderly well- being too 40(57.1%). Besides, the urban public parks might help aging populationengage in physical exercise and social interaction by having the natural environments with more natural elements, such as trees and plants, which can contribute to their overall attractiveness and health benefits 46(65.7%). In keeping with age-friendly city policies, it might the urban public park be planned to guarantee older

folks safety, accessibility, and social interaction by providing accessible facilities and amenities 40(57.1%). For the last questionnaire on section B, the steps are being done to improve the park's inclusiveness and accessibility in light of aging-related changes in sensory acuity and mobility are also by providing accessible facilities and amenities 47(67.1%). Therefore, by prioritizing accessibility in urban park design, cities can ensure that these public spaces are inclusive for all residents, ultimately contributing to the well- being and quality of life of the community.

Questionnaire Section B Frequencies						
Question	Top answer	Res	oonses			
		N	Percent			
1. What are the specific needs of you in urban public park design and amenities?	Physical activity and health	33	19.9%			
2. What specific design elements can be incorporated into urban public parks to make you more accessible ?	Accessible paths and walkways that are well-maintained, free from obstacles and debris, and easy to navigate	42	19.9%			
3. How can urban public parks be designed to ensure the safety and security of you, particularly during nighttime and morning hours?	Security personnel and surveillance systems	38	24.8%			
4. How can technology and smart solutions be integrated into urban public park design to enhance the experience you and support your health and well-being?	Sensor-operated facilities	35	20.5%			
5. What do you think the most potential benefits of improving the urban planning of urban public parks to better of the elderly population, encouraging social interaction, active and healthy lives, and general elderly well-being?	Improving mental health	39	21.5%			
6. In what ways do you think urban public parks might help aging populationengage in physical exercise and social interaction?	Barrier-free and healthy built environment - encouraging elderlys to stay physically active and engaged in their community	18	10.6%			
7. In keeping with age-friendly city policies, how might the urban public park be planned to guarantee older folks' safety, accessibility, and social interaction?	Providing accessible facilities and amenities	39	23.6%			

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Table 3. Urban	public park	Desian	Preferences	(Select Ur) To Th	ree)
	P			100.000.00		

8. What steps are being done to improve the park's inclusiveness and accessibility in light of aging- related changes in sensory acuity and mobility?	Providing accessible facilities and amenities	46	29.9%
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Next, for section C which is user's satisfaction of urban public park. This section has been prepared for 10 question related based on the objective of the research. First, by providing a safe environment in urban public parks, particularly during the day, is essential to encourage community members to utilize these spaces. The respondents mostly disagree when asked about their feel safe at the urban public park during the day 28(40%). The highest respondent's vote that they are agree that urban public parks and green spaces can contribute to a higher quality of life for older adults 25(37.5%). They also agree that incorporating age-friendly design principles and safety-promoting technologies is essential to creating inclusive and accessible smart urban public parks 26(37.1%). Not only that , 38(54.3%) are agree that involving older adults throughout the research, design, and implementation phases of smart urban public parks is necessary to develop design solutions that specifically cater to their needs and 31(44.3%) are agree that integrating innovations and smart technologies can improve user experience and encourage older adults to lead healthy lives in urban public parks. This is because smart technologies, like emergency call systems, surveillance cameras, and well-lit paths, can increase safety and make urban public parks more appealing to older adults who may be more prone to accidents or crime. Next, the respondents are agree with the questionnaire satisfaction related to the design and implementation of smart technologies and innovations is crucial for creating inclusive and accessible public spaces 29(42.4%), create design solutions that especially address the requirements of older individuals, their involvement is essential throughout the research, design, and implementation phases of smart urban public parks 28(40%) , mobile applications and virtual reality experiences can help older adults stay connected and eng aged with their community 32(45.7%). Last of the questionnaire satisfaction this is one and only the respondents choose strongly agree with the creation of inclusive and accessible smart urban public parks requires the integration of age-friendly design principles and safety-promoting technologies. It is because ultimately, creating inclusive, accessible, and safe urban public parks benefits the community as a whole, fostering social interaction, physical activity, and a sense of well-being

among diverse groups of aging population 43(48.6%).

	Statistics								
		Do you feel safe at the urban public park during the day ?	Do you agree that urban public parks and green spaces can contribute to a higher quality of life for older adults?	Do you agree that incorporating age-friendly design principles and safety- promoting technologies is essential to creating inclusive and accessible smart urban public parks?	Do you agree that involving older adults throughout the research, design, and implementatio n phases of smart urban public parks is necessary to develop design solutions that specifically cater to their needs?	Do you agree that enhancing accessibility and inclusivity in smart urban public parks can contribute to the development of age- friendly cities while offering an improvement in the quality of life of older adults?			
Ν	Valid	69	69	69	69	69			
	Missing	0	0	0	0	0			
N	Mean	2.57	3.65	3.87	3.99	3.94			
M	ledian	2.00	4.00	4.00	4.00	4.00			
Ν	Node	2	5	4	4	4			
Std.	Deviation	1.254	1.235	.954	.849	.906			
Va	ariance	1.573	1.524	.909	.720	.820			
	Sum	177	252	267	275	272			

Table 4.	User's	Satisfaction	Of	Urban	Public	Park
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Statistics							
Do you agree that incorporating smart technologies and innovations can enhance the user experience and promote healthy living among older adults in urban urban public parks?	Do you agree that mobile applications and virtual reality experiences can help older adults stay connected and engaged with their community?	Do you agree that involving older adults in the design and implementatio n of smart technologies and innovations is crucial for creating inclusive and accessible public spaces?	Do you think that in order to create design solutions that especially address the requirements of older individuals, their involvement is essential throughout the research, design, and implementatio n phases of smart urban public parks?	Do you think that the creation of inclusive and accessible smart urban public parks requires the integration of age-friendly design principles and safety- promoting technologies?			

Ν	Valid	69	69	69	69	69
	Missing	0	0	0	0	0
	Mean	4.07	4.01	4.09	4.06	4.22
Ν	Nedian	4.00	4.00	4.00	4.00	4.00
	Mode	4	4	4	4	5
Std.	Deviation	.896	.962	.869	.906	.937
V	ariance	.803	.926	.757	.820	.879
	Sum	281	277	282	280	291

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According to these findings, in order to build surroundings that meet the requirements of older individuals, accessibility, safety, and social interaction should be given top priority when designing urban public parks. Urban planners and designers have the ability to develop public places that encourage active aging and generate a sense of community by taking into account the preferences and needs of various age groups. This can eventually improve the quality of life for aging population in Kuantan, Pahang.

DISCUSSION

The results of the research provide insight into the unique requirements of the elderly when it comes to urban public park facilities and design, as well as actions that may be implemented to improve this group's park experience. The research highlights how important it is to design inclusive and agefriendly urban areas, especially in fast-growing towns like Kuantan where parks are becoming more and more important for fostering sustainability and community well-being.

The design and facilities of urban public parks should prioritise the physical activity and health demands of the senior population. This emphasizes how crucial it is to provide amenities and services that promote The design and facilities of urban public parks should prioritise the physical activity and health demands of the senior population. This emphasizes how crucial it is to provide amenities and services that promote aging populations' active lifestyles and general well-being. Furthermore, the use of technology and intelligent solutions, including sensor-driven amenities, is emphasized as a way to improve park experiences and promote aging populations' health and wellbeing. ' active lifestyles and general well-being. Furthermore, the use of technology and intelligent solutions, including sensor-driven amenities, is emphasized as a way to improve park experiences and promote aging populations' health and wellbeing.

The research also highlights how better urban design of urban public parks might assist the senior population in other ways, such as enhancing mental health, promoting physical activity and social contact, and guaranteeing safety, accessibility, and inclusivity. This correlates with the larger literature on the advantages of urban parks for the elderly, including the promotion of physical and mental health, social cohesion, and environmental sustainability.

The research's conclusions highlight the significance of constructing inclusive and age-friendly urban areas, especially in quickly growing cities like Kuantan where parks are increasingly seen as having a positive impact on sustainability and community well-being. By researching and addressing the special demands of the ageing population, urban public parks may be created to better satisfy the requirements and preferences of the aged, fostering social engagement, active and healthy living, and overall senior well-being.

CONCLUSION

To conclude, the research conducted to examine the design choices for age-friendly urban public parks in Kuantan, Pahang, has yielded significant insights into the varied demands and preferences of the local population. The particular design aspects that appeal most to various age groups have been identified thanks to the quantitative data gathered through surveys and evaluations. For architects, legislators, and urban planners who want to design public areas that are inclusive and adaptable to the changing demographic makeup of the neighborhood, this information is essential. The examination of age- appropriate design choices for urban parks in Kuantan, Pahang, has yielded significant knowledge on the requirements and inclinations of various age cohorts, especially the elderly. Research has shown how important it is to priorities safety, accessibility, and social interaction when designing and implementing urban public parks in order to create spaces that support active aging and meet the requirements of Analyzing Age-Friendly Design Preferences for Urban Public Park, Kuantan, Pahang page 129-152

aging population.

Urban public parks may improve user experience and encourage healthy living among aging population by implementing smart technology and innovations. This will make these areas more accessible and inclusive for all members of the community. Additionally, it is imperative that older users actively participate in the research, design, and implementation stages of smart urban public parks to guarantee that these public areas cater to the unique requirements of aging populationand enhance the community's well-being and standard of living. The results of this research also highlight how crucial it is to include age-friendly design ideas into park construction and urban planning. Quantitative research reveals preferences for things like seating places, accessible routes, and recreational facilities. These preferences may be used as a guide to design public spaces that support the needs of people of all ages. The importance of age-friendly urban infrastructure is becoming more and more clear as cities throughout the world struggle with the effects of an aging population, and the findings of this research significantly add to the current conversation.

The findings of this research can help build inclusive, sustainable urban landscapes that meet the demands of the elderly population as well as the needs of the larger community. They can also be used to guide the design of age-friendly urban public parks. Urban public parks that serve the requirements of aging population and encourage active aging must be designed and implemented as a top priority for cities as the world's population ages. Urban planners and designers may build public places that encourage healthy living, foster a sense of community, and enhance the general quality of life for aging populationin Kuantan, Pahang, and beyond by using an inclusive and user-centered approach.

Within a larger framework, the research not only tackles the pressing issues surrounding the layout of urban public parks, but it also supports the general objectives of building thriving, healthy, and sustainable communities. Urban planners and legislators may promote a feeling of community involvement and belonging by giving priority to age-friendly architecture, which would eventually improve the general standard of living for Kuantan, Pahang, people. It is imperative that stakeholders continue to work together to construct urban areas that really suit the requirements of all generations going forward and utilize these research findings as a basis for informed decision-making.

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