

Challenges on Use of Recreational Parks in Kuala Lumpur

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Published online: 30 August 2019

To cite this article: Mazlina Mansor, Khalilah Zakariya and Nor Zalina Harun (2019). Challenges on use of recreational parks in Kuala Lumpur. *Journal of Construction in Developing Countries*, 24(1): 141–162. <https://doi.org/10.21315/jcdc2019.24.1.8>.

To link to this article: <https://doi.org/10.21315/jcdc2019.24.1.8>

Abstract: Recreational public parks in Kuala Lumpur are provided to support leisure activities of city residents. The leisure activities include voluntary, recreation and social activities. Recreational parks have been recognised to play a positive reinforcement in promoting a healthy lifestyle, regarding physical health, social or even mental health. Nonetheless, some users have negative perceptions of recreational parks. The study investigates challenges pertaining to city residents' use and needs of recreational parks in Kuala Lumpur. Survey results from respondents who live in various zones in Kuala Lumpur were analysed to identify the parameters relevant for the study ($n = 1617$). The respondents' answers were statistically analysed using Statistical Package for the Social Science (SPSS). The findings revealed challenges related to the use and needs of recreational parks, namely facilities, design aspect, maintenance and safety. The findings imply that similar challenges are prominent in many research papers in the last 15 years. In other words, the specific challenges identified in this study need more attention, should be evaluated closely and be solved for future improvement on the conditions of city's recreational parks. Through solving the pertinent aspects, comfortable spaces and activities that affect residents' health and well-being can be planned and managed.

Keywords: Recreational public parks, Challenges, Use, Needs

INTRODUCTION

An increase in leisure activities, particularly in urban areas are an outcome of a rising standard of living, changing employment, and lifestyle patterns of the urban inhabitants (Maruani and Amit-Cohen, 2007). These factors resulted in an ever-growing demand for outdoor recreations in cities. To fulfil the needs, a city is planned to consist of a variety of public recreational places, to complement and contrast with its concrete jungle. Recreational parks and open spaces are important services that are provided by the local government. The public spaces range from large-scale recreation parks to the smallest of pocket spaces. In Kuala Lumpur, the recreational public parks and open spaces are provided to support leisure activities of city residents. Besides, the public spaces play a positive reinforcement in promoting a healthy lifestyle for city residents, physically, psychologically and socially. The public recreational park has also been long recognised as contributors to physical and aesthetic qualities of a city's environment.

Researchers in many countries in the world have provided various evidence on the benefits of recreational parks (e.g. studies by Akpınar and Cankurt, 2016; Zainol and Au-Yong, 2016; Nasir, Ahmad and Ahmed, 2013; McCormack et

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al., 2010). Regrettably, there are also negative perceptions regarding use of recreational parks in urban areas. Similarly, the recreational parks in Kuala Lumpur are facing challenges, which hinder city residents from enjoying their recreational parks attributes and facilities. For examples, barriers such as rowdy behaviours, teenage hangouts, underused spaces or even crimes (Dalip, 2001; CABE Space, 2005; Seaman, Jones and Ellaway, 2010; Maruthaveeran and van den Bosh, 2015) deter full enjoyments of the amenities.

The quantity of recreational parks, their location, adequacy of facilities and maintenance need also to be considered to facilitate and offer city residents with a healthy environment. On the other hand, according to Kuala Lumpur City Hall, in many cases, community facilities such as local and neighbourhood parks are adequately provided, but somehow, they are under-utilised (Kuala Lumpur City Hall, 2004). The situations are probably caused by vandalism, inadequate maintenance and poor accessibility (Dalip, 2001; Seaman, Jones and Ellaway, 2010; Cohen et al., 2010). The conditions have also affected some other facilities than parks, such as children's playgrounds, soccer fields and sports facilities (Kuala Lumpur City Hall, 2008; McCormack, 2010).

Studies have also shown that a lack of quality facilities near residents' home is the main barrier for people not going to recreational parks (Roth, 2016; Akpinar and Cankurt, 2016). Such facilities include good transportation and pedestrian networks. Baran et al. (2013) suggest that proximity and accessibility to large neighbourhood parks are related to the increased use of the parks. Therefore, accessibility is crucial to many people, especially for youth. Thus, the attribute has a policy and planning implications of a city's recreational spaces.

Concerns about personal safety in parks also become one of the main challenges. It detracts people from the enjoyment that a recreational park can offer because people are concern about safe travelling to and from their nearest local park, and worry about their safety while doing activities in the park (Aziz, 2012; Ayegi and Ujang, 2014; Maruthaveeran and van den Bosh, 2015). Other than that, there is also lack of awareness of the location of parks and what recreational park offers may not match users' interest (Loukaitou-Sideris and Sideris, 2009; Cohen et al., 2010; Zainol and Au-Yong, 2016). Other challenges include reduced in spending for green spaces in many countries including Malaysia has also impacted the ability to manage parks effectively, because of the current national economy and state budget cutbacks (Dalip, 2001; Fratini and Marone, 2011; Aziz, 2012; Kabisch, 2015). For instance, even in a developed city, financial constraints on municipal budget in Berlin, Germany severely affect green space development, as suggested by Kabisch (2015). A study by Reeves (2000) also found that year-on-year budget cuts over the last 30 years due to lack of recognition of parks services and other factors have contributed to declining condition and status of urban public parks in Britain.

The article presents findings that identify challenges on use of public recreational parks in Kuala Lumpur. It explores responses of city residents on issues and needs of the recreational parks in Kuala Lumpur city. Review of literature covers international and local studies from 2001 onwards, and the aspects of review cover challenges and needs of park users. The study is important to identify users' needs of a recreational park, and the factors that they feel important to be improved by professionals and local authorities. It is not a new study because the topic on challenges on the usage of a city's public spaces is an ongoing discussion among researchers and professionals. It is rather an addition to the pool of knowledge to provide evidence that there are ongoing challenges that a city needs to improve

despite various formulated policies, design ideas and implementation. The findings also provide understanding on the close relationships between city residents and their green environment, to what extent that the current amenities give benefits to city residents and challenges face by the public, professionals and local authorities to overcome them. The findings are significant too in light of increasingly sedentary society, and declining quality and quantity of urban green spaces face by many countries all over the world. Investigation of these factors may provide underlying guidelines for a better provision of recreational parks in a city, such as an understanding of good park attributes that can be relevant in planning, design and management of a vibrant and positive city spaces.

LITERATURE REVIEW

Urban public spaces in Malaysia consist of several categories. They are city park, district park, civic field, neighbourhood park, pocket park, plaza and a few more. The recreational park is one of the favorite public spaces among Malaysians. It is a place that city residents can frequently visit without any entrance fee (Danis, Sidek and Yusof, 2014; Ngesan et al., 2013). A recreational park goes beyond the functions for leisure activities, recreation and physical activities to provide an opportunity for all to socialise. Recreational facilities such as parks and children's playgrounds in Kuala Lumpur are planned, provided and maintained by Kuala Lumpur City Hall. The city parks, local and neighbourhood parks in Kuala Lumpur have significant contributions that go beyond the needs of the citizen. It also serves to attract domestic and international visitors to the city (Kuala Lumpur City Hall, 2008). These recreational parks can create a chance for a physical and psychological revitalisation of the daily life of urban residents (Nasir, Ahmad and Ahmed, 2013).

There is a wide range of benefits of recreational parks in a city as suggested by various researchers. The benefits include recreational and leisure needs of people (Maulan, 2002; Carmona and Tiesdell, 2007), environmental benefits (Noorazuan and Ruslan, 2003; Pickett and Cadenasso, 2008), economic benefits (Wolf, 2005), physical well-being (Booth et al., 2000; Pretty et al., 2007), cognitive well-being (Jamil, 2002; van den Berg, Hartig and Staats, 2007; Nurse et al., 2008) and social well-being (Yap et al., 2007). For example, from ecological perspectives, parks and green spaces create wildlife habitats and reserve land for future urban development. Pretty et al. (2007) suggests that major green space such as city and neighbourhood parks enable residents to have access to the natural environment, thus allows interactions and people's engagements with nature. In summary, parks in a city improve the quality of the urban environment through the provision of access to natural habitats, avoidance of damage to the built form, improvements in ambient environmental quality, more opportunity for healthy lifestyles, and opportunities to encounter nature. It is because the physical features in a recreational park can provide opportunities to attract users to do activities, thus will make the place vibrant in use due to increasing numbers of visitor. It is found that attributes such as general population (carrying capacity), short distance, many trees, open lawn, exercise equipment, soccer and basketball fields, and picnic areas are features that attract users to use parks and green spaces (Akpinar and Cankurt, 2016).

Participation in leisure and social activities in recreational parks and other outdoor public places are known to be an important determinant of health and well-being of people. The spaces are considered as a physical space that is unique

and attractive in urban areas. For example, socially, it allows city residents to conduct local and social activities, therefore promotes connection and interaction among people. In leisure aspect, Ramlee et al. (2015) suggest that the purpose of visiting parks among Malaysians are to relax, to walk for fresh air and to have fun. From their study, Ayeghi and Ujang (2014) suggest that the main purpose of users coming to the park is for leisure activities, as compared to other purposes. For examples, watching other people's activity, walking, enjoying water showcase and listening to the sound of waterfall are among the leisure activities that park users genuinely appreciate. These activities imply that, given a choice, city residents in Malaysia prefer an outdoor public space as a place to spend their leisure time activities, either passive or active. The activities can be carried out individually or in a group such as with friends and family. For example, youths require a place to be healthy and physically active by playing sports in outdoor areas. Hence, factors such as proximity to parks from their home and the provision of sufficient and suitable facilities will affect their recreational activities (Zulkia et al., 2014). It is because it is found that youths that have convenient access to recreational facilities, which are near their homes, are more active than those without such access (Bauman et al., 2012). In other words, the nearer the parks from their home are, the higher tendency for them to use the recreational facilities in the parks.

Sadly, challenges or barriers of use of recreational parks were also found in many recreational spaces in the urban area. For instance, poor ethics, unhealthy activities among park users and lack of maintenance are among the reasons that made city residents feel reluctant to visit the recreational parks (e.g. Aziz, 2012; Ayegi and Ujang, 2014). The famous urbanist and human behaviour researcher, William H. Whyte claims that when a public space is empty, vandalised or used chiefly by undesirables and this is generally an indication that something is very wrong with its design, or its management, or both (Whyte, 2012). Hence, the issue of underutilised recreational parks goes back to the design and management of the spaces. Challenges on management and maintenance of public recreational parks in a city are not localised. It means that the conditions do not only occur in Malaysian parks, but they are a worldwide concern. Irregularity in maintenance leads to a dirty and uncomfortable environment; such as an unpleasant smell of water bodies, infertile plants and garbage. Aziz (2012) states that, this issue relates to the factor of lack of fund for maintenance work. Besides, unhealthy activities in public spaces in Malaysia such as loitering culture, illegal racing, vandalism and graffiti may deter people to visit the places. Dalip (2001) reports that RM2.4 million is spent yearly by the city council, other government and private-sector agencies on repairing and replacing facilities damaged by vandals. The exercise equipment could be damaged due to the act of vandalism and be used in an incorrect manner. These factors also relate to safety and security in recreational parks, thus making a recreational park as an unwanted place for outdoor leisure activities. Concerning safety, one of the management steps that can be implemented by the Kuala Lumpur City Hall is a proper landscape maintenance and plant species selection, as suggested in the study of Maruthaveeran and van den Bosh (2015). Also, to give comfort, park designers need to create play environments conducive to feelings of safety and security that would reassure rather than discourage park usage. Besides, Ngesan and Zubir (2015) suggest that most city residents in Malaysia prefer to carry out leisure activities at night time too due to the higher temperature and their busy lifestyle during the day. So much so that the aspects of comfort and safety are very significant to complement this kind of lifestyle.

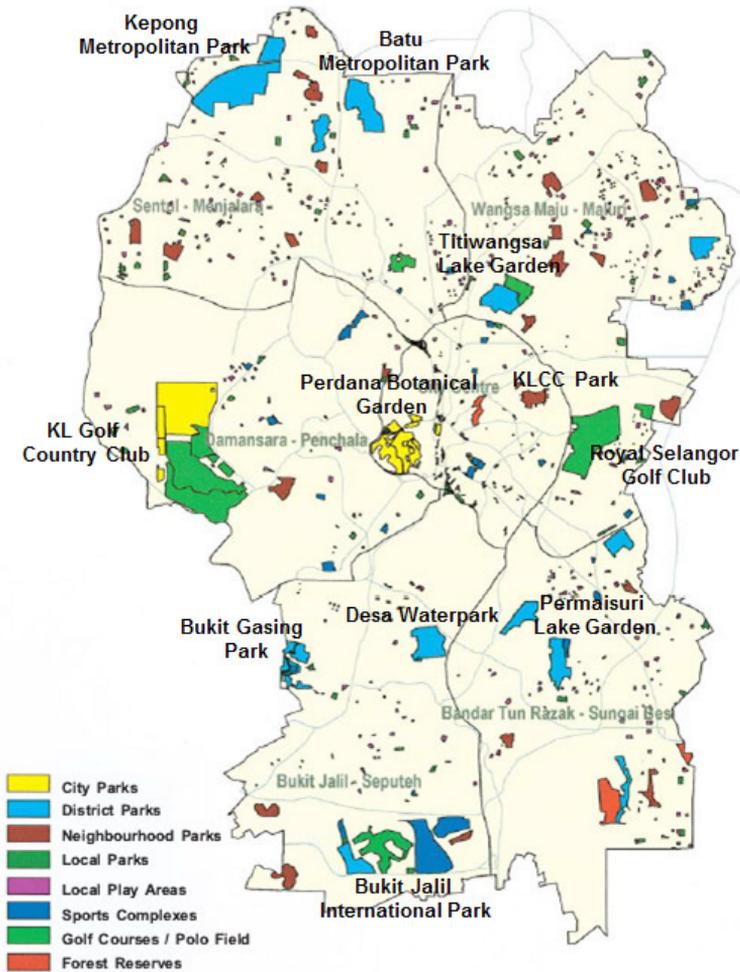
Razak, Othman and Nazir (2016) imply that park users will be motivated to visit a recreational park if it can attract them through various conducive activities and functional spaces. It is mentioned by Streetheran (2017) that more than 80% of park users feel that recreational parks in Kuala Lumpur are actually safe to be visited. Hence, to optimise the use of parks, stratifying areas in a park by age groups may also be important for users (Floyd et al., 2011). It is because size and personalisation of the park area are related to park use (Smith et al., 2008). For example, since older adults have the disadvantage in their specific needs of park usage, practitioners who plan, design and manage the recreational parks must pay attention to this group of users. By providing facilities that fulfill their autonomy needs, such as elements of nature and convenience of use, the older adult can have a better experience of the park, and it will encourage them to revisit it more often (Gibson, 2017). A park programming also should allow opportunities for socialising, safety and security, access routes, natural elements for contact with nature and aesthetic elements (Loukaitou-Sideris et al., 2016). In other words, design aspects of a recreational park that fulfill users' needs may increase the frequency of visits and could develop city residents' attachment to the place.

Sakip, Akhir and Omar (2014) claim that the main factor of a successful park is good access and linkage, followed by sociability, activities and the degree of comfort and image. Regarding linkage, Floyd et al. (2011) propose that creating and enhancing access to parks and playgrounds are promising strategies to increase physical activity, especially among children and adolescents. It seems that lower quality of the walking environment in the neighbourhood and lower quality of park design may also account for reduced use of parks in a city (Smith et al., 2008).

MATERIALS AND METHOD

Study Area

The study area covers various districts in the strategic zones of Kuala Lumpur city. The areas include Kuala Lumpur City Centre, Wangsa Maju–Maluri, Sentul–Menjalara, Damansara–Penchala, Bukit Jalil–Seputeh and Bandar Tun Razak–Sungai Besi. Within these areas, there exist a variety of recreational parks at different scales and hierarchies. Based on the Kuala Lumpur City Hall, the parks in Kuala Lumpur can be categorised into a city park (e.g. Perdana Botanical Garden), a district park (e.g. Titiwangsa Lake Garden), a neighbourhood park (Permaisuri Lake Garden) and a local park (e.g. Kepong Metropolitan Park and Batu Metropolitan Park). Even though the parks are at a different scale, the respondents for this study consider these parks as their neighbourhood parks. It is because the residents live within one to a three kilometres radius from these recreational parks. For this study, the different hierarchies of parks as defined and mentioned earlier are considered as a neighbourhood park by the respondents. For them, the neighbourhood parks play important roles for outdoor activities in Kuala Lumpur city. Figure 1 illustrates the main recreational parks and public space that is in Kuala Lumpur.



Note: Coloured version of this figure is available in the online edition of Journal of Construction in Developing Countries.

Figure 1. Main Recreational Parks and Public Spaces in Kuala Lumpur (Adapted from Kuala Lumpur City Hall [2008])

Methods of Data Collection

The study explores the city residents' use and needs of public parks and open spaces in Kuala Lumpur. It also identifies challenges concerning use and physical characteristics of the recreational parks. The results were obtained from questionnaire survey ($n = 1,617$). The survey involved respondents who live in various districts in Kuala Lumpur, namely the area of Kuala Lumpur City Centre, Wangsa Maju–Maluri, Sentul–Menjalara, Damansara–Penchala, Bukit Jalil–Seputeh and Bandar Tun Razak–Sungai Besi. To obtain respondents, enumerators approached

them in several recreational parks (i.e. Taman Tasik Titiwangsa, Taman Botani Perdana, Taman Metropolitan Kepong, Taman Tasik Permaisuri, Putrajaya Park and Taman Metropolitan Kepong). The residents were also approached in their residential areas located within the zones of study. The respondents were selected based on the distance that they live from the nearest recreational parks, which is within one to three kilometres radius.

The parameters, namely on challenges and needs based on the benefits of outdoor recreation in the recreational parks were investigated. The questionnaire survey consisted of various items that were designed to measure the parameters. Questionnaire surveys were used because they are widely used as a mean of making descriptive assertions about the preferences and attitudes of the sample of a population (Akbar, Hale and Headley, 2003). A questionnaire has the advantage of reaching a reasonable representative group of people in a short period, providing a mean to generate data that can be quantified and analysed. Hence, it gives the opportunity to assess various issues from the view of people with different social, economic and geographical background (Oppenheim, 1992; Akbar, Hale and Headley, 2003).

The survey items were derived from the parameters established by a literature research. The literature covers articles from as early as the year 2000 up until the current ones. The reviews covered at least five fields of study that relate to the use, challenges and effects of recreational parks and public spaces in urban areas (as shown in Table 1). They are epidemiological studies, lifestyle pattern, leisure and recreation, landscape architecture and planning, and urban ecosystem studies. A wide range of electronic databases was covered in the review, including Science Direct, Proquest, SCOPUS, SpringerLink and Google Scholar portal. The remaining studies were also obtained from proceeding papers, journals, theses, governmental reports, and books. These reviews show that outdoor activities, especially in recreational parks and public spaces in urban areas receive a lot of attention from researchers in various fields. The parameters emerged from the reviews as summaries in Table 1 show that use, challenges and effects of recreational parks and public spaces cover physical, psychological and social parameters. Physical characteristics of the environment and ecosystem services also play vital roles in determining areas for future improvement of the spaces.

Before the actual on-site survey was carried out, the questionnaire was pilot-tested with a small sample of residents. Items were pilot-tested to improve the format, clarity and wording of the questionnaires. The pilot test resulted in only minor changes to the survey questionnaires where the final questionnaire was organised into several sections.

A judgment non-probability or convenient sampling method was used to collect the data, in which the respondents were selected based upon a judgment of the researchers about some appropriate characteristics of the samples (Ahmad, 2007). In relation to this, the respondents were included in the survey because they are residents who live in Kuala Lumpur city in 10 districts in six strategic zones of the metropolitan city. They are Kuala Lumpur City Centre, Wangsa Maju–Maluri, Sentul–Menjalara, Damansara–Penchala, Bukit Jalil–Seputeh, and Bandar Tun Razak–Sungai Besi. The respondents live at least three kilometres from the nearest neighbourhood or city parks in the zones. In other words, they are the residents who would mostly participate in outdoor activities and visit the nearest recreational parks in the city. Thus, they are somewhat representative of the population.

Table 1. Parameters Emerged from Literature Review of the Study

Field	Authors	Parameters
Epidemiological study	Wickrama, Bae and O'Neal (2016), Zainuddin et al. (2016), Azhar et al. (2016), Chorin et al. (2015), Hazreen et al. (2014), Zulkia et al. (2014), Yaacob et al. (2009), Pretty et al. (2007) and van den Berg, Hartig and Staats (2007)	<ol style="list-style-type: none"> 1. Physiology: Body mass index (BMI), genetic factors, unhealthy diets, blood pressure, sleep quality, obesity and overweight. 2. Physical health: Body health; fighting obesity. 3. Psychology: Level of stress.
Lifestyle pattern	Sham (2015), Ayeghi and Ujang (2014), Danis, Sidek and Yusof (2014), Ngesan et al. (2013), Nasir, Ahmad and Ahmed (2013), Qidwai et al. (2010), Chin and Mohd Nasir (2009) and Booth et al. (2000)	<ol style="list-style-type: none"> 1. Types of activity: Computer gaming addiction, spend time indoor more than outdoor, entertainment effect, sedentary behaviour, widespread use of internet and gadget, eating behaviour and symptom. 2. Effect towards psychology: Personal values and attitudes.
Leisure and recreation	Zainol and Au-Yong (2016), Zulkia et al. (2014), Yan et al. (2014), Amin et al. (2012) and Floyd et al. (2011)	<ol style="list-style-type: none"> 1. Indoor space: Addiction of passive activities, influencing factor and effect towards youth health. 2. Outdoor space: Level of physical activity, physiological and mental health level, time trends and time spend, location of activities.
Landscape architecture and planning	Roth (2016), Akpinar and Cankurt (2016), Ramlee et al. (2015), Latifiyan and Salavati (2015), Ngesan and Zubir (2015), Danis, Sidek and Yusof (2014), Sakip, Akhir and Omar (2014), Ngesan et al. (2013), Aziz (2012), Zainol and Maidin (2011), Çubukçu, Zeybek and Shafei (2010), Ries et al. (2009), Kaczynski, Potwarka and Saelens (2008), Maruani and Amit-Cohen (2007), Yap et al. (2007), Ali and Nawawi (2006), Wolf (2005), Maulan (2002), Jamil (2002) and Dalip (2001)	<ol style="list-style-type: none"> 1. Physical environments: Park quality is associated with park use, facilities should be given the priority, aesthetic quality, proximity aspect. 2. Social environments: Safety and security aspects, promotes the social interaction, influencing factor by other park users.
Urban ecosystem	Pickett and Cadenasso (2008), Nurse et al. (2008) and Noorazuan and Ruslan (2003)	Ecosystem services provided by nature in urban area and its effects (physical and mental well-being).

The sample size to determine a population under study is based on the Taro Yamane method (Yamane, 1967). The sample population which consists of who live within three kilometres radius and use recreational parks for all six zones are estimated to be more than 100,000 people. The Taro Yamane method was used to calculate the sampling size for the population using the following formula:

$$n = N / (1 + N(e)^2)$$

where:

n is the sample size

N is the population under study

e signifies the margin error (0.03)

Therefore, at 95% confidence level, based on the calculation, the sampling size for the study is:

$$n = 100,000 / (1 + 100,000 (0.03)^2)$$

$$n = 100,000 / (1 + 100,000 (0.0009))$$

$$n = 100,000 / 91$$

$$n = 1,099$$

The areas of survey are in the zones as shown in Table 2. Putrajaya was also included in the survey area because it is closely related with Kuala Lumpur and have many attractive public spaces for residents to use. The units of analysis were conveniently drawn according to their residence and place of encountering researchers during the survey. Two ways were carried out to obtain responses. First, ten assigned enumerators approached and distributed self-administered questionnaire survey forms to users of recreational parks. Secondly, they visited residents who live in various neighbourhood areas near a recreational park, approached and distributed survey forms to the residents. The residents were selected based on the distance that they live to their nearest recreational parks, which is within one to three kilometres radius. The final total number of the completed surveys was 1,617 respondents.

Table 2. Areas of Survey in Kuala Lumpur

Strategic Zones	Recreational Green Space
The City Centre	Perdana Botanical Garden Kuala Lumpur City Centre (KLCC) Park
Sentul–Menjalara	Kepong Metropolitan Park Batu Metropolitan Park Residential areas
Wangsa Maju–Maluri	Titiwangsa Lake Garden Residential areas
Damansara–Penchala	Residential areas
Bukit Jalil–Seputih	Bukit Jalil International Park
Bandar Tun Razak–Sungai Besi	Permaisuri Lake Garden Residential areas

This article presents two sections with several items in the questionnaire. The items in the survey were presented using several types of scale measurements. In specific, they are in dichotomous scale, categorical scale, a positive five-point Likert format and open-ended questions. The Likert scale is a response from 5 = "Strongly Agree" with 1 = "Strongly Disagree" and a 3-neutral option. The open-ended questions on several important parameters of the study were given to the respondents to complement the close-ended questions.

Analysis

The analysis focuses on discerning the challenges regarding use of recreational parks in Kuala Lumpur and the needs of park users. Descriptive statistics such as percentage and mean were used to describe the data. This is applicable for this study because it concerns with summarising a sample. According to Shamsuri (2004), the approach is aimed at obtaining some degree of simplification. In addition, descriptive statistics and frequencies are used in many studies involving public opinion (Akbar, Hale and Headley, 2003). For this study, open-ended questions were analysed and grouped based on the parameters emerged from the respondents' answers.

FINDINGS

The findings show parameters that include the respondents' characteristics, challenges concerning parks' use and needs of Kuala Lumpur city residents of their neighbourhood recreational parks.

Characteristic of Respondents

Table 3 shows the results on several items that are related to the characteristic of respondents.

The respondents in the study consisted of city residents ($n = 1,617$) who live in various strategic zones in Kuala Lumpur and Putrajaya. Wangsa Maju–Maluri zone consisted of 44.7% of the respondents. They consisted of most of the respondents because the residents were approached at the main and a well-known recreational park in Kuala Lumpur, which is Titiwangsa Lake Garden. Furthermore, the survey was also carried out in the residential areas around the park. The second largest percentages of respondents were from Sentul–Menjalara zone (18.8%). This is where two major recreational parks are located, which are Kepong Metropolitan Park and Batu Metropolitan Park. A small percentage of respondents came from Bandar Tun Razak–Sungai Besi zone (9.9%), Damansara–Penchala (8.9%), Kuala Lumpur City Centre (2.8%) and Bukit Jalil–Seputih zone (2.7%). "Others" (10.9%) represent the respondents who live in the fringe areas of Kuala Lumpur, such as Shah Alam and Petaling Jaya.

Half of the respondents are in the age group of 22–40 years old (55.7%). They represent the adults in Kuala Lumpur. A large percentage of the respondents also came from a younger generation group within the age of 15–21 years old (34.9%). They are the Generation Z of Kuala Lumpur. They are the first generation of the 21st century and was born from the mid of the 1990s to the late 2000s (Sladek and

Grabinger, 2014). This data is important because statistic in Malaysia has projected that the population of Gen Z will increase from nearly three million in 2016 to 5.5 million in 2020 (based on statistics from Department of Statistics, Malaysia [2016]). Therefore, there is a need to focus more on their needs for outdoor leisure activities. A recreational park is an ideal place for Gen Z to be active, which can offer them positive effects towards health, growth development and shape their attitudes. It is also suggested by research that most users in recreational park is among youth generation. Another minority of respondents consists of children within the age of 12–14 years old (3.3%), older adults within the age of 41–59 years old (5.3%) and the elderly (0.8%).

Table 3. Characteristics of the Respondents

Parameters	Measures	Frequency (No.)	Valid Percentage (%)
Residency based on strategic zones	Kuala Lumpur City Centre	45	2.8
	Wangsa Maju–Maluri	721	44.7
	Sentul–Menjalara	303	18.8
	Damansara–Penchala	144	8.9
	Bukit Jalil–Seputeh	43	2.7
	Bandar Tun Razak–Sungai Besi	160	9.9
	Putrajaya	21	1.3
	Others	176	10.9
Age group	12–14 years old	53	3.3
	15–21 years old	564	34.9
	22–40 years old	900	55.7
	41–59 years old	86	5.3
	60 years old and older	13	.8
Type of residence	Bungalow/semi-detached	137	8.5
	Terraced house	479	29.7
	Flat/condominium	497	30.8
	Village-type house	92	5.7
	Shop house lot	21	1.3
	Others	386	23.9

Most of the respondents live in a flat or a condominium type of housing (30.8%) and terraced-type housing (29.7%). "Others" (23.9%) represent students who live in hostels of their institutions, quarters-type housing and town house. A small percentage lives in bungalow, village-type housing and shop house lot.

Challenges on Use of Recreational Parks

A central question of the paper explored residents' opinion on challenges related to the use and functions of a public recreational park in Kuala Lumpur. Two types of question were posed to the respondents: (1) closed-ended question in Likert scale format and (2) an open-ended question. The measures for Likert scale format question were derived from the literature review obtained through international and local papers related to the study of recreational park and green space in urban areas. The literature covers articles from as early as the year 2000 up until the current ones. 15 items on challenges were posed to the respondent and to ease in

interpretation of results the responses were categorised into several parameters as presented in Table 4.

Table 4. Challenges on Use of Public Recreational Parks in Kuala Lumpur (Likert Scale Format)

Parameter and Measure	Mean	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
Park Facilities and Location						
D4-3 Outdated facilities	3.85	1.9	6.3	21.2	45.8	24.8
D4-2 Uncomfortable	3.48	1.6	11.5	37.0	36.7	13.2
D4-11 Bad location	3.13	3.8	18.7	47.1	21.5	8.9
D4-10 Too far	3.45	2.0	10.8	41.7	31.1	14.3
Design Aspects						
D4-4 Unused	3.49	2.1	10.3	37.1	37.1	13.4
D4-6 Bad lighting	3.40	3.1	15.3	35.1	31.3	15.2
D4-14 Limited learning opportunity	3.37	2.5	12.5	42.5	30.7	11.8
D4-5 Lack of signage	3.35	2.3	13.1	42.8	30.8	10.9
D4-15 Lack of aesthetic value	3.30	4.2	16.6	38.1	27.4	13.7
D4-12 Unattractive design	3.27	3.0	17.3	40.9	27.6	11.2
Maintenance						
D4-1 Dirty	3.71	2.0	6.2	29.7	42.8	19.3
Activities and Attitude						
D4-9 Unhealthy social activities	3.99	2.2	5.5	19.0	37.9	35.4
D4-8 Vandalism/ graffiti	3.84	1.9	7.5	23.2	39.1	28.3
D4-13 Limited social interaction	3.22	3.0	16.5	45.4	25.4	9.7
Safety						
D4-7 Crime	3.68	3.0	9.8	27.8	35.1	24.3

Results show that there are five parameters related to the challenges. All measures for the parameters obtained means result of more than 3 (mean > 3). This means that the respondents agree that recreational parks in Kuala Lumpur are facing these challenges. The most significant items that need attention are challenges that are leaning towards "Agree" (mean > 3.5). They are the parameters on: (1) activities: unhealthy social activities (mean = 3.99), (2) park facilities: outdated facilities (mean = 3.85), (3) attitude of park users: vandalism/graffiti (mean = 3.84), (4) maintenance: dirty (mean = 3.71) and (5) safety: crime (mean = 3.68). Even though other parameters on the challenges, such as design aspects and safety received a lower mean of the result, the responses were also leaning towards an agreement scale (mean = 3.2 to 3.49). It shows that a large percentage of the respondents agreed that recreational parks in Kuala Lumpur are facing these challenges as well.

To complement the closed-ended question, an open-ended response was also included in the questionnaire. The question was posed to expand on the understanding on issues of recreational parks and to add to meaning to the Likert scale format questions. It is meant to reveal respondents' own opinion regarding issues that need attention related to recreational parks and open spaces in Kuala Lumpur. Sixty-six respondents filled up the open-ended question. Their answers were analysed and categorised into a meaningful parameter as based on similar keywords in the respondents' answers. The results are shown in Table 5.

Table 5. Challenges on Use of Recreational Parks in Kuala Lumpur (Open-Ended Response)

Parameters Emerged from Respondents' Answers	Frequency (Cases)	Percentages (%)
Park facilities	22	31%
Design aspect: Not user friendly; Unsafe equipment; Unattractive/dated	18	25.4%
Maintenance: Dirty and smelly	12	16.9%
Crowded; Noisy	8	12.7%
Safety: No closed-circuit television (CCTV); No guard	4	5.6%
Activities: Lack organised activities	3	2.8%
Public transportation: No transit; Lack of buses	2	2.8%
Others: Lack of green; Too much development around park	2	2.8%
Total : 66 respondents	71 cases	100%

Seventy-one answers were recorded from the 66 respondents who answered the question. Three salient challenges were raised by the respondents. They are on the facilities (31%), design aspects of the park (25.4%) and maintenance (16.9%) of the recreational parks (31.8%). On facilities, it seems that lack of parking spaces become a major challenge to park users. This is probably related to the responses that there are lack of public bus/transportation and no shuttle bus from the nearest public transportation to go to parks in Kuala Lumpur (2.8%). Therefore, users need

more parking spaces to be able to visit the recreational parks. The respondents also expressed that there are inadequate toilets and *surau* facilities, shelters, seating, food stalls and dustbins in recreational parks in Kuala Lumpur.

The design features of space also play an important role for park users. Among the concern raised by the respondents on design aspect are such as: lack of wide open space, poor sense of welcoming, lack of access, not friendly to physically-challenged people, unsafe equipment for toddlers, not up-to-date in design, narrow walkway and materials used for design are of poor quality.

In the aspect of maintenance, the respondents mentioned that certain places in recreational parks are dirty or even smelly. They feel uncomfortable to be in the areas because of the conditions. This is confirmed also by the result in the closed-ended response, whereby respondents agreed that some spaces in recreational parks in Kuala Lumpur can be dirty and smelly (mean = 3.71). Respondents also highlight issue of overcrowding (12.7%) and the recreational parks can be a noisy place during peak hours. This means that Kuala Lumpur needs more recreational park and green spaces to cater the ever-growing population in the city. As suggested by Akmar et al. (2011) in their strengths, weaknesses, opportunities and threats (SWOT) analysis of the status of greenspace planning in several cities including Kuala Lumpur, the full potential of greening as a part of city development has not yet been realised. Although it is mentioned in *Kuala Lumpur Structure Plan 2020* that there are various recreational parks such as neighbourhood parks, local parks and playgrounds in all strategic zones, they are not distributed evenly according to population distribution (Kuala Lumpur City Hall, 2008). Hence, there may be cases where some areas that really need recreational spaces may have not received the amenities.

Other parameters emerged from the result are on safety (5.6%), lack of organised activities such as *zumba*/aerobic, lack of public transport and shuttle bus, lack of greenery and too much development around recreational parks (2.8% respectively). Safety aspect concerns with issues such as no CCTV and lack of security guard to provide surveillance to the parks. Lack of greenery relates to the aspect of thermal comfort, whereby users need more shade and aesthetic quality of their surroundings with the provision of natural environment.

Needs of Users

The respondents were also asked about the types of activities that they need in a public recreation park. Table 6 shows the result.

Looking from the results in the form of means, cycling and relaxing place becomes the top priority to the residents (mean = 4.16; 4.13). It shows that the major function of a recreational park is to provide places for leisure activities that can offer relaxation and respite to users. Exercise (mean = 4.10) is an active activity that users need too. Therefore, facilities to enable residents to do this activity in a comfortable manner are necessary. It can be in terms of good facilities and conducive design. Somehow, the result on needs of users are related to the major issues that they are concerned with in the closed-ended and open-ended answers, that is in terms of facilities and design aspects of the parks. Other needs include places to socialise such as picnic together (mean = 3.93) and sports activities (mean = 3.56 to 3.86). The result suggests that a recreational park should function to give people variety of experience and enable to cater various activities and groups of users such as to individual, family and youth.

Table 6. Needs of Users of Recreational Parks in Kuala Lumpur

Types of Activity Needed in Parks	Mean	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
D2-a4 Cycling	4.16	0.9	1.4	14.6	46.9	36.1
D2-b3 Relaxing place	4.13	0.6	1.5	16.4	47.3	34.2
D2-a2 Exercise	4.10	0.8	1.4	14.7	52.9	30.2
D2-b2 Picnic	3.93	1.2	3.5	23.1	45.8	26.5
D2-a1 Sports	3.86	1.5	3.4	25.2	46.9	23.0
D2-a3 Water sports	3.77	1.6	6.1	28.9	40.1	23.3
D2-b1 Camping	3.56	2.2	8.6	36.4	35.9	16.8

DISCUSSION

The study has identified specific challenges regarding use and needs of park users in Kuala Lumpur. Among the concerns suggested by findings on the part of users are social issues by youngsters and negative attitude such as vandalism. On the part of management, findings suggest that park facilities, maintenance and design aspects need attention.

Recreational facilities are essential in Kuala Lumpur, for the physical and psychological well-being of city residents. They serve as elements that can reinforce a sense of community (Kuala Lumpur City Hall, 2004). In terms of quantity, the city council admits that although there are various types of recreational green space (such as neighbourhood and local parks, children's playgrounds, soccer fields, public swimming pools and tennis courts) in all strategic zones in Kuala Lumpur, the spaces are not evenly distributed according to the respective population areas. Uneven distributions of these neighbourhoods and local parks somehow have affected the use and provision of recreational areas in a more populated area in the city. The results from this uneven distribution may be seen from crowded parks, vandalism and lack of maintenance as many research and this study have pointed out (e.g. studies by Space, 2005; Ali and Nawawi, 2006; Sakip, Akhir and Omar, 2014).

Social concerns such as negative attitude and behaviour in park, vandalism and graffiti become the main concerns on the quality of experience in recreational parks. Some may say that it is not worth to invest money in the upkeep and maintenance of local parks because they will just get vandalised. However, most opinions of users in many studies suggest that recreational parks bring many benefits to their quality of life (e.g. studies by Maulan, 2002; Zainol and Au-Yong, 2016; Roth,

2016). There are also issues of maintenance and upkeep of design facilities in a park. On this point, the decline in the quality of recreational parks is somehow related to the improvement of behaviour of parks users and upkeep of the spaces. It seems that when the local government provides suitable and sufficient recreational facilities and activities to users, it should somehow be packaged with adequate management, maintenance and safety measures. On this aspect, Space (2005) implies that the decline in the condition of recreational parks in a city is related to the increase in the inappropriate behaviour of users. For example, dirty places encourage graffiti, vandalism or even crime. Thus, it is more appropriate to invest in the design and care of high-quality spaces rather than tackling issues on negative behaviour of users. It means that focusing more on solving the root of the issues than curing the symptoms. For example, when a place has a high quality of upkeep, people are less likely to litter, and they would feel safer if the place is visibly maintained.

Enhancing access and visible circulation layout of a park can also create opportunities for people to observe one another (Floyd, 2011), which will discourage bad behaviour. Another solution is tightening the rules of conduct in public parks. Security is an additional measure that adds to solve the challenges. Other than that, programmes that get involvement from the local community will improve the sense of belonging to users to a park, for example, involving youngsters in giving ideas on location and design of places for them to gather.

Maintaining a park is expensive, especially when it sits in an urban area. Lack of funding, despite what city residents needs and hope, the local government has to find ways and invest more in recreational parks to support city residents' leisure and recreational activities.

On the management part, local government can mitigate the current challenges by having a performance management and maintenance system. For example, the local government's objectives and strategies are currently openly publicised. Nonetheless, besides citizens' awareness, workers need also to be continuously aware of the objectives and strategies of the council's effort to improve recreational parks in the city. Therefore, through performance evaluation, they can contribute more effectively to achieve the objectives. Awards on standard achievement can also be a useful benchmark and drive motivation to improve public spaces in a city. To achieve this, various parties need to have a positive attitude and continuous motivation to achieve quality.

Findings and recommendations such as these are important in supporting efforts for park design, so they serve all spectrums of park users. It seems that contextual, design features and social aspects appear to either stimulate or hinder park usage by city residents. These conditions also suggest that there are still many areas that require improvements by professionals and local authority. They can somehow represent opportunities for professionals and local authority to identify solutions to improve further facilities that the local government offers to the public.

CONCLUSION

City residents need recreational park because the place is one of the essential requirements for them to be able to participate in activities, leisure and recreational activities, as well as to socialise. The way parks and recreation have integrated itself into the lives of city residents highlight that it is not a luxury, but rather a crucial,

essential service delivered by local governments. The findings of this study have suggested that there are various challenges that the city residents must face in terms of use of recreational parks in Kuala Lumpur. City residents need more recreational parks because currently, the carrying capacity could not cater the growing population in Kuala Lumpur. Park users must have an awareness of the aspects of cleanliness, present good attitude when using public recreational parks and need to be educated to care for their green area so that it is comfortable and attractive to be used by all types of user.

When compared to the literatures that were reviewed from 2001, the literatures suggest similar challenges, which means that the same challenges such as maintenance issue, design aspects and users' attitude to take care of public parks keep emerging in the past 15 years. These challenges need more attention by all spectrums of authority, as well as users.

In planning and management aspects, parks in a city need to be improved in various aspects, particularly in terms of facilities, good location, design, maintenance, safety, transportation network and transit. The findings of this study have implications in ways that they reveal to various local authorities on the needs to update and formulate design and planning guidelines of recreational parks to take considerations on the ever-emerging challenges in providing the needs of park users. Even with the current challenges, the study suggests that the local government such as the Kuala Lumpur City Hall to keep investing in providing a sufficient and high-quality spaces, with good maintenance system and surveillance. This is considered as a complete package that ensures the feeling of comfort, safety and security of recreational park uses. By tackling the roots of the challenge, it will eventually lead to a responsible utilisation of recreational parks in a city by all spectrums of users. Thus, quality and successful parks in a city as aspired by all could be achieved.

ACKNOWLEDGEMENTS

This article is a part of research work funded by the Fundamental Research Grant Scheme (FRGS) Research Grant obtained through the International Islamic University Malaysia (IIUM).

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