

Visitor Perceptions and Accessibility for Disables in the Children's Park, Jaffna

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ABSTRACT

Visitor information often serves as the basis for the management plan of parks. The parks and open spaces in Sri Lanka are studied briefly and only a few scientific and fundamental surveys are identified in the literature. However, none of the studies were carried out at the children's park in Jaffna, which is one of the prominent urban park in the Northern Province. Hence, the present study was conducted with the objectives of gathering and comparing specific information about park to improve the park further. Two hundred visitors were interviewed using a questionnaire. Data were subjected to descriptive statistics and regression analysis. People from the entire peninsula visited the park and majority of visitors belong to the travel group family and spent less than 2 h in the park. The age has a relationship with the satisfaction levels of the visitors. The main purpose of visitation was identified as playing with kids (47%) and rest and relaxation (47%). Importance of accessibility and other facilities of a park for disable people were highly recommended by differently able people in Jaffna. A key distinguishing finding of our results is that an adequate concern has not yet given to disable visitors to the park. These findings will help park managers to understand the current situations and examine future management strategies to maintain and enhance visitor satisfaction and improve information services.

KEYWORDS: Aesthetic evaluation, Disabled persons accessibility, Landscape, Recreation, Visitation pattern

INTRODUCTION

A Park is an area of natural, semi-natural, or planted space set aside for human enjoyment and recreation or for the protection of wildlife or natural habitats (Anon, 2016). A children's park as the very name indicates, is a park meant for children to come in the mornings and evenings to spend their leisure time in the open and fresh air of the park, away from their congested homes and busy environments (Arpita, 2011).

Aesthetic is concerned with beauty or the appreciation of beauty. Beautiful landscapes provide unique opportunities for people to achieve special kinds of experiences, often called aesthetics, which are highly valued and less likely to occur in less-beautiful places (Chenoweth and Gobster, 1990). According to Mackey (2004), aesthetic qualities which people enjoy are also influenced by peoples' values and preferences. Recreation is an activity of leisure, leisure being discretionary time. Recreational activities are often done for enjoyment, amusement or pleasure and are considered to be fun (Daniels, 1995).

Disability is the consequence of an impairment that may be physical, cognitive, intellectual, mental, sensory, developmental, or some combination of these that results in restrictions on an individual's ability to participate in what is considered normal in their everyday society (Morin, 2016). A disability may be present from birth or occur during a person's lifetime (Rubin and Crocker, 1989).

According to the available statistics, 1,566 persons (including children) are disabled in Jaffna due to the war (Anon, 2014). Hence it is a burning issue in the society.

In July 2011 Minister of National Heritage declared the old Kachcheri building in Old Park to be a Protected Monument. The renovated Old Park was upended to the public in July 2012. The Old Park open at 9:00 a.m. and close at 7:30 p.m. in week days and 8:30 p.m. in weekends. Apart from smaller parks, this is the main park available in the Jaffna peninsular for general public, children and travellers. In most of the open spaces in developed countries regular demographics and satisfaction surveys were carried out to improve the parks (Bowie, 2010). However, hardly any studies were conducted on local parks. On the other hand, though disability is a burning issue in the North, inclusive design techniques were hardly applied in public open spaces in the Jaffna peninsula.

Hence, the objective of the present study is to gather and compare specific information about park visitation patterns, opinions, preferences and demographics to improve the park further.

MATERIALS AND METHODS

Study Area

The study was conducted at the Children's park (Old Park), Jaffna, during the period from December 2015 to May 2016.

Data Collection

All the trees species present in the park was identified and from February to April 2016 and 200 visitors were interviewed using a pre-structured questionnaire. Each questionnaire included questions with regards to demographic characteristics, purpose of the visit, time spent in the park, frequency of visitation and with whom they have visited *etc.*

Visitation pattern was evaluated over a period of one month by making observations at the entrance of the park and through the help of the park supervisor. Features of the recreation and accessibility for disables were evaluated in the park by observations and taking measurements and photographs.

Recreation and Disabled Accessibility

Details of the disabled persons were collected from the Divisional Secretariat, Jaffna district. To evaluate the views regarding accessibility and other facilities of a park for disable people, special ranking questions were used and 50 disable people from Jaffna disable forum were interviewed to collect data.

Statistical Analysis

Visitation pattern was analyzed descriptively. The relationship between the level of satisfaction of visitors and the educational level, gender, age, travel group and child age category was analyzed by regression analysis using Minitab 17. Preference for the aesthetic features, recreation and disabled accessibility were analyzed using mean rank value.

RESULTS AND DISCUSSION

Parks serve various purposes including recreational activity areas for nearby urban residents who often lead stressful lives. Consequently, large numbers of people visit these places for numerous purposes throughout the year (Hammit, 2002). The demands for open spaces in the neighbourhood are increasing as people become more demanding for a natural experience when seeking refuge from urbanization (Aikoh *et al.*, 2012). In recent years, user questionnaires and surveys have been conducted in most urban and public facilities as this information is useful in management, operations and construction of those facilities (Aikoh *et al.*, 2012; Bowie, 2010).

Composition of Trees in the Park

A total of 64 individuals belongs to 18 species were present in the park (Table 1). Of which 83.3% is represented by natives. Palmyra

was the most abundant species followed by neem.

Table 1. The composition of trees in the park

Scientific Name	Common Name	No.
<i>Adansonia digitata</i>	Baobab (E), Perkkumaram (T)	01
* <i>Azadiracta indica</i>	Neem (E), vembu(T), kohomba (S)	11
* <i>Borassus flabellifer</i>	Palmyra (E), Panai (T), tal (S)	10
* <i>Cocos nucifera</i>	Coconut (E), Tennai (T), pol (S)	07
* <i>Delonix regia</i>	Flamboyant (E), poo-vahai (T), mal-mara (S)	01
* <i>Ficus religiosa</i>	Peepul (E), Arasu (T), bo (S)	02
* <i>Lannea coromandelica</i>	Odi (T), hik (S)	01
* <i>Madhuca longifolia</i>	Mousey-mi(E), illupai (T), mi (S)	03
* <i>Melia azedarach</i>	Ceylon Mahogany (E), malai-vembu (T), lunu-midella (S)	03
* <i>Mimusops elengi</i>	Makil (T), muna-mal (S)	08
* <i>Morinda coreia</i>	Manchavanna(T), Ahu (S)	02
<i>Muntingia calabura</i>	Jam tree (E), Jam (S)	03
* <i>Saraca asoca</i>	Asogam (T), Ashoka (S)	03
* <i>Schleichera oleosa</i>	Ceylonoak (E), Kula (T), kon (S)	01
* <i>Syzygium cumini</i>	Naval (T), Madan (S)	01
* <i>Tamarindus indica</i>	Tamarind (E), Puli(T), mahasiyambala (S)	02
* <i>Tectona grandis</i>	Teak (E), tekku (T), Takku (S)	01
<i>Araucaria columnaris</i>	Cook pine (E)	04
TOTAL		64

*Native

Visitation Pattern

Visitation pattern is a useful management indicator of level of use of urban parks and it's the attractiveness of tourism sites (Catibog-Sinha, 2000).

Demographics of Visitors

Among the visitors, gender distribution was more or less equal, which consisted of 53.5% male and 46.5% female (Table 2). Regardless of the gender, majority of visitors (60.5%) belong to the age group between 18-35 years. Therefore, it is important to satisfy this age group by conducting further studies to identify their interests.

Even though there were a high number of visitors (55.5%) from very near places (<10 km), a considerable number of visitors (23%) came from far places (>20 km) too (Table 2).

Table 2. Socio-demographic profile of visitors

Variable	Frequency	Percentage
Child age		
0-5	52	48
6-12	39	36
13-17	9	8.3
Combination of age <17	8	7.4
Age		
18-24	47	23.5
25-34	74	37
35-44	38	19
45-54	8	4
55-64	24	12
>=65	4	2
Gender		
Male	107	53.5
Female	93	46.5
Educational level		
<O/L	8	4
O/L	34	17
A/L	81	40.5
Diploma	19	9.5
Degree	53	26.5
Postgraduate	5	2.5
Distance		
<5	57	28.5
5-10	54	27
10-20	43	21.5
>20	46	23

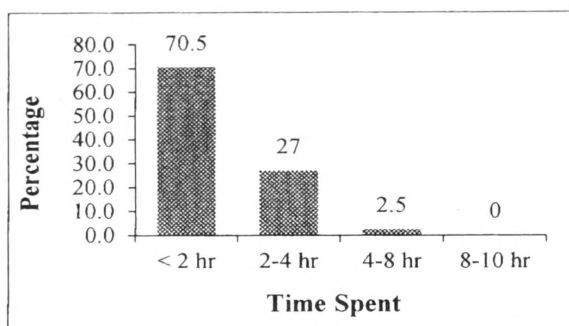


Figure 2. Distribution of the length of the time the visitors spent

Purpose of Visitation

Among the purposes of visitation, playing with kids (47%) and rest and relaxation (47%) were the topmost (Figure 3). Visiting for educational purposes ranked the lowest (1%). Therefore, educational activities can be promoted through the labelling of trees, displaying posters and other outdoor activities.

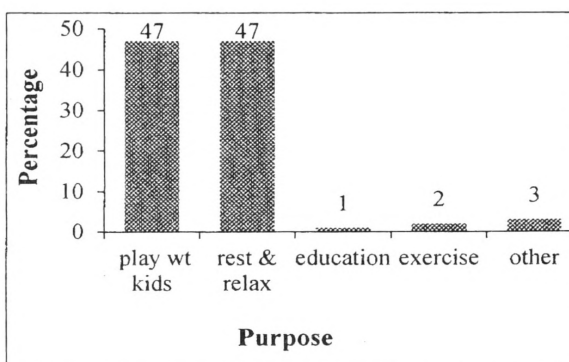


Figure 3. Reasons for selecting the park

Frequency of Visitation

Majority of visitors (33.5%) visited the park for the first time (Figure 4) followed by 2-5 times per year (30%).

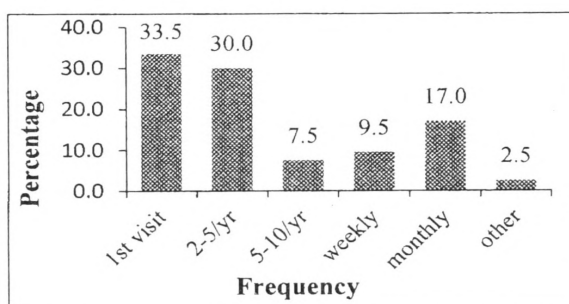


Figure 4. Frequency of visitation to the park

Social Group of Visitors

The visitors were categorized based on their social groupings such as single (individual), family, friends and couples (married/elderly). Family represents the majority (55%) among them (Figure 1). This clearly indicates the presence of young married parents with their kids. Friends represent the next majority (37%) of the social groupings.

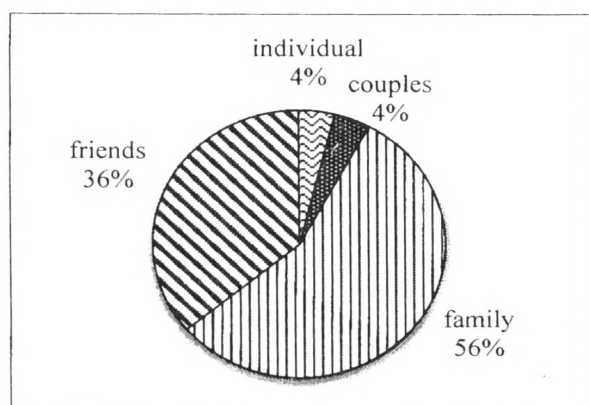


Figure 1. Distribution of visitor categories

Length of Visits

Based on the time visitors spent in the park, they were categorized into four groups (Figure 2). Majority of the visitors (71%) spent only less than 2 h period in the park.

Recreation Preference of Visitors

Parks offer a range of recreational facilities both active and passive. When consider about the broad range of playing facilities, 93.5% of visitors were suggested it as an important feature for their visit and 60% of visitors were satisfied regarding the present playing facilities for the children. However,

40% of the visitors were not satisfied, because of the availability of less number of playing equipment, broken equipment and lack of safety.

In early morning and late night, few numbers of employed people come to the park for walking, to do breathing exercises and to practice yoga. Some seniors come to the park frequently for regular walking.

View of Visitors for Disable Person's Accessibility

Among the visitors, 77.5% of visitors considered accessibility for the disable people as an important requirement to the park while 79.5% visitors were not satisfied about the facilities available for disable people. Because there were fewer facilities other than ramps in entrance area and cement paved paths. There were no any toilet facilities, sitting areas and other activities for disabled.

Facilities at the Park

Majority of the visitors (79%) were satisfied about their visit to the park. With regards to the facilities provided by the park management, according to the visitors 56.5% were satisfied with the well designed and maintained paths and 89.5% were liked the sitting areas. However, 92.5% were not satisfied about the road signs in the park. In addition, only 9.5%, 7.5% and 4.5% satisfactory remarks were given for access to toilet, clean and well-presented toilet and useful directional and informational signs. Visitors were not satisfied about the unnoticeable location of the toilet and drinking water facilities. There is no any shelter except at the entrance area. Therefore, it is important to incorporate sufficient shade trees and resting places to the park.

Safety of the Park

Majority of the visitors were satisfied (55.5%) with the safety aspects of the park in general while 43.5% visitors were not satisfied with the safety of children's play areas. Because, there were no any sand floor under some of the playing equipment and poor drainage caused water logged area around the play equipment. Some of the play equipment are broken and covered with rust. There is no any barrier surrounding the pond which has caused this area to become hazardous.

Regression Analysis for Visitor Satisfaction

In relation to the female visitors, male visitors have significantly lower satisfaction. Female visitors might have visited the park with their children. This may led to higher

satisfaction levels. Advance level or lower than A/L qualified visitor's satisfaction level was significantly high compared to visitors having tertiary education. This may be due to their exposure to facilities available in the park. A significantly high visitor satisfaction was recorded by visitors came with their friends compared to individual visitors. Thirty five to forty four year age category visitors satisfaction level is significantly different with other age categories and they have higher satisfaction than other age categories (except elderly, >65 yr). Parents of 0-5 year children have higher satisfaction compared to parents of other age categories of children. Family visitors frequently come to the park mainly to play with kids and elderly people come to the park mainly for rest and relax. But parents have low satisfaction level regarding the availability of recreation and aesthetic features. They recommend further water bodies with water plants, artificial waterfalls, pools, sanctuary, focal points, flower garden, information boards and shade (Table 3).

Table 3. Regression analysis for visitor satisfaction

Variable	Coefficient	P value
Female	-0.780029*	0.009
0-5	-1.25101*	0.008
6-12	-0.460641	0.318
13-17	-0.648015	0.379
Combination of age < 17	0.517601	0.532
25-34yr	-0.548810	0.175
35-44yr	-1.06754*	0.038
45-54yr	-0.166704	0.836
55-65yr	-0.446576	0.433
>65yr	-1.21911	0.127
O/L	0.654633	0.464
A/L	0.903199	0.286
Tertiary education	1.69864*	0.051
Couples	-0.180528	0.854
Family	-0.503791	0.520
Friends	-1.70628*	0.033

Age (18-24, 25-34, 35-44, 45-54, 55-65 and >65yr)
Child age category (0-5, 6-12, 13-17 and combination of age <17) education levels (O/L, A/L and Tertiary education - Degree, Diploma, Post graduates) Gender (male, female) Travel group (Single, couples, Family and Friends). * Significant at $p < 0.05$

Regression Analysis for Importance of Accessibility and Other Facilities of a Park for Disable People

There was no significant difference between the views of male and female regarding accessibility and other facilities of a park for disable people. Importance of accessibility and other facilities of a park for disable people were highly recommended by disable persons who have completed Ordinary Level than those who have completed

Advanced Level. People with speech impairment has highly recommended the importance of accessibility and other facilities compared to people with hearing impairment ($\alpha=0.10$). The age has no relationship with the recommended accessibility and other facilities of a park for disable people. The present study was limited only to five months. However, long term survey should be conducted to further discuss the issues and to make concrete conclusions (Table 4).

Table 4. Regression analysis for importance of accessibility and other facilities of a park for disable people

Variable	Coefficient	P value
Female	1.03948	0.188
18-24	-1.26830	0.184
25-34	3.37616	0.104
35-55	1.15922	0.509
>55	-4.05616	0.192
O/L	-0.74910	0.410
A/L	6.78725**	0.006
Speech impairment	-6.89129*	0.075
Visual impairment	-20.1335	0.999
Physical impairment	0.541034	0.748
Combination of impairment	1.43696	0.313

*Significant at $p<0.05$, **Significant at $p<0.1$; Gender (male, female) Age (<18, 18-24, 25-34, 35-55, >55yr) Educational level (<O/L, O/L, A/L) Type of disability (hearing, speech, visual, physical and combination of two or more).

CONCLUSIONS

According to the study, majority of visitors belong to the travel group family. The main reason for the visit is for play with kids and rest and relax. There is a significant relationship between the visitor's satisfaction with their gender, education level and type of travel group. Importance of accessibility and other facilities of a park for disable people were highly recommended by differently able people.

Though the park is designated as a children park, due to lack of public open green spaces in the city, this could also be further promoted as a multi-functional park to further accommodate people with different age groups. To improve socio-cultural wellbeing of city dwellers, it is important to uplift the facilities of the park paying particular attention to the disable community.

ACKNOWLEDGEMENTS

The authors wish to express their gratitude to Mr. P. Vageshan, Municipal Commissioner,

Mr. P. Jayarajah, Work Supervisor and the labourers of Old Park, Jaffna. Sincere gratitude is extended to Mr. E. Pradeepan, for his assistance given in statistical analysis. The support provided by the visitors and differently able people attached to the Jaffna disable forum is also appreciated.

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