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# Assessment of community park as social interaction place for rural communities: a case study of Peyi Community Bwari Abuja

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## Abstract

This study is focused on the benefits of community park as a place of social interaction in Peyi community, Bwari Abuja. The study examined community parks and their environmental impact as it relates to social interaction. Community parks play a significant role in the society, they provide significant impact to their host communities by enhancing regional development. It boosts the economy, as well as the dynamics of social processes. A mix methods approach of qualitative and quantitative research was adopted for the study using questionnaire, interview guide and observation checklist. A sample size of 150 was considered, adopting the stratified random sampling technique. The result was analyzed using SPSS and the findings are presented in tables and charts. The findings of the study revealed there is a good interaction in Peyi Community Park between people from different social and cultural backgrounds hence the aim of social interaction in the community park was met but about 60% decry poor availability of basic amenities, inadequate spaces provided as well as lack of privacy and overall poor security Architecture in the park. The study concluded that it is necessary for Architects and other building professionals involved in community park designs to consider innovative ways of ensuring safety at night through the use of motion sensitive lighting systems and other passive measures, design consideration for end users and also design to accommodate anticipated population including provision of age appropriate facilities.

**Keywords** Community park, Social, Interaction, Rural community, Peyi community

## Introduction

Community parks are considered as large space designated to serve surrounding residential areas and designed to cater diverse activities families may want to engage in (Anon, n.d.). In the case of Nigeria, it is common to find that community parks are often called Amusement

parks even when they do not meet the basic definition of Amusement parks. The nomenclature of amusement park as used by the rural community residents is basically due to the activities that they conduct during festive seasons in such parks. An amusement park is a combination of various types of attractions that may be divided into several major categories: thrill rides, roller coaster rides, family rides, water attractions or rides in darkness in a covered train (Zygmunt 2012). Camp (1997) defined

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amusement park as 'as being an outdoor attraction which combines rides, attractions and shows; as being designed around a central theme or group of themes; and as being charging a pay-one-price admission fee to visitors. The evolution of Amusement parks started from European fairs, pleasure gardens, and large picnic areas, which were created for people's recreation (Jimmy 2005), while the World's fairs and other types of international expositions are also influence of the emergence of the amusement park industry.

The precursor of amusement parks, was the funfair with fascinating roller coaster trains and various interesting exhibits to be viewed by visitors. Unlike temporary and mobile funfairs and carnivals, amusement parks are stationary and built for long-lasting operation. They are more elaborate than city parks and playgrounds, usually providing attractions that cater for a variety of age groups (Milman 2001). However, this can cannot be same as community parks where the individuals are required to create their own fun activities with no fixed facilities. The Amusement parks allow individuals to look forward to an adventure and after the visit they provide memories that tend to last a lifetime (Aleksandrova 2011). Community parks equally parks play a significant role in society, they provide significant impact on their host communities, enhance regional development, boosts economy, as well as the dynamics of social processes.

The community parks give the residents a sense of belonging as they tend to interact with each other when they meet in such places hence the location of community parks is quite important within the community. Community parks are considered as critical aspect of a functional community because they often include diversity of spaces to suit different users of the space, the basic function of the community park is to provide avenue for recreation (<https://www.victoria.ca>). Their ability to promote a happy and free environment allows visitors to escape their everyday life and experience complete happiness (Sedinkin 2009). However, they can also be seen

as places to promote social interaction within the community as it brings various classes of people for recreational purposes (Shuib et al. 2015). Parks are designed to fulfil human needs (Al-Bishawi and Ghadban 2011), and social interaction is one of the most important needs. Hence, community parks are crucial public open space for social activities, it affords opportunities for contact which include proximity and convenient access to public facilities, particularly in rural communities (Azmi and Karim 2012).

There is limited literature in the area of community parks and the available ones are focused on the tourism industry by Nya and Duncan (2016) and Xindong et al. (2021) on soil contamination in parks; Suresh et al. (2020) on digital queuing in parks. These spaces support physical activities, social interactions, and enjoyment of nature and provide an escape from hectic city life (Brown et al. 2013). The need to relax after a day's work key in any given community regardless of the nature of the work done by the individuals, their gender or their age and these recreation can take place anywhere there is provision for social interaction (Cross and Walton 2005; Contente 2016) Hence the aim of this study is to assess Community Park as a site for social interaction in rural communities using Peyi community in Bwari area council as case study, with the view to make it world class to enhance social interaction community inclusiveness.

### Study area

Peyi community is located in one of the Area Councils in the Federal Capital Territory Abuja. Bwari is a local government area in the Federal Capital Territory (FCT) of Nigeria. The original inhabitants of the town are the Gbagyi speaking people. The paramount ruler is the Esu who is otherwise known as Sa-bwaya. The FCT is made up of Six Area Councils that make up the capital of Nigeria and Peyi community is a rural community hence it does not enjoy the benefits of the urban areas despite being in the Federal Capital Territory of Nigeria.



### General concept of recreation

Recreation comes from the Latin word “recreatio” which means to renew, recreate or reconstruct (Akova et al. 2019). Recreation has multiple meanings based on the perception and experience of the individual (Torkildsen 2005; Obinna et al. 2009; Gunes and Parlak 2020) and Stebbins (2021), defines recreation as leisure-time pursuits that differ from activities in which people are normally highly engaged”. Sevin (2016), explained recreation to be time spent re-energizing/resting and participating in voluntary activities, after-duty activities, and activities such as work. For most people, the setting in which the recreation takes place is a very important part of the whole experience and in many instances, it is the landscape that enables them to obtain the most enjoyment from a scenic view (Tyrvaenen 2001). Henderson and Ainsworth (2002) and Chi (2022), discovered that many kinds of recreational experiences in which people can be freely engaged take place in outdoor settings and are seen as enjoyable by a wide range of people in their leisure time. Recreational activities provide an important approach to replenishing people’s energy and preparing them for the next task. Participation in recreation is intrinsically motivated in nature and is often done for pleasure, entertainment, or pleasure that is considered “fun” (Nkwanyana 2020; Stebbins 2021). However, participation in leisure activities must be well organized (Donnelly 2002).

Recreation has been shown to flow through so many aspects of personal life (Li and Wang 2011), such as

improving depression levels, building self-esteem and self-confidence (Kirkcaldy et al. 2002; Stinnett and Gibson 2016) increasing people’s life satisfaction (Sugiyama and Ward-Thompson 2007; Sugiyama et al. 2009) time management (Driver 1997; Driver and Burns 1999), positive interpersonal relationship development between social groups and families (Ramsey and Smit 2002), improving school performance (Roddy et al. 2017), improving social interactions, refreshment of the senses, reduction of tension, anxiety and fostering personal growth (Fadamiro and Adedeji 2014). These benefits evolves physical, mental, and social health benefit which indicates that the individual fulfil the need for personal development while contributing to the satisfaction of the person’s psychological needs for well-being and the development of their social behavior (Paksoy 2016).

### Recreation in rural community

Recreation is an experience (Driver 1972; Driver and Brown 1978) that is goal-oriented, with satisfaction expected from participation (London et al. 1977). Recreation in rural communities is positively associated with higher community satisfaction (Payne and Schaumleffel 2008). Rural recreational activities and events connect all generations in the community and increase a sense of togetherness among their members (Oncescu and Robertson 2010). This contributes to the quality of rural life by providing opportunities for socialisation, strengthening family solidarity, helping to encourage healthy personal growth and providing a strong base for youth to develop interests that may follow into adulthood (Long

and Kraus 1983). Rural recreation also contributes to the formation of close-knit communities and local community pride (Tonts and Atherley 2005). However, participation in recreational and other community activities helps strengthen civic engagement, which is important to respond to community needs (Arai and Pedlar 2003), and can facilitate settlement for newcomers (Perez et al. 2010; Gallant and Tirone 2017), through the development of social networks and language skills (Suto 2013). Taken together, rural recreation activities clearly have a strong link to healthy community traits, including cohesion, identity and pride, which contribute to improving the overall quality of life in rural communities (Middleton 2000).

In most communities, age, gender, local context, and socioeconomic status determine the types of recreational activities people engage in, and their leisure time is based on cultural activities such as traditional dance, storytelling, religious festivals and events, and the Visiting entertainment troops. Sometimes rural residents travel greater distances to access recreational facilities, limiting their participation (Arnott and Duffield 1980). However, the rural community often has fewer community-based recreational programs and opportunities available (Parker 2001). Unlike their urban counterparts, rural communities have limited resources for recreational activities and rely on themselves and other community members to create opportunities rather than access structured programs (Oncescu and Robertson 2010; Oncescu and Giles 2012).

### Social interaction

Social interaction is defined as a process in which activities are included; these activities satisfy specific human needs such as their need for belonging, their need for love, self-esteem, and success (Hana and Amal 2015). Social interaction comes from communication and these interactions can include smiling, talking or winking; threatening, fighting, or debating; and negotiating, discussing or litigating. However, the rise of the internet in the 1990s provided an infrastructure for interaction between individuals around the world. Distributed social networks formed through email and chat, on bulletin boards and chat rooms, struggled to survive and, in many cases, endured and thrived (Merchant 2006; Tahroodi and Ujang 2022). Social interaction between individuals and their social environment varies from individual to individual depending on the situation. Good social interaction involves an appropriate social network on which social capital is rooted. This plays a key role in the formation of society as it transforms a person's character and personality, which in turn has the potential to transform society. Again, Aelbrecht (2019), stated that there is a

shared consensus on social interactions as a way of building community cohesion. Without social interaction, the human community will not be able to achieve successful functionality (Baumeister and Leary 1995), and repeated social interactions defines the relationship with each interaction shaping future interactions (Leary et al. 2015; Tahroodi and Ujang 2022).

Social interactions plays a significant role and its importance cannot be overemphasised as they have been shown to be beneficial for health (Smyth et al. 2014; Ferguson 2015) and psychological well-being (Hays et al. 2001). Similarly, people who engage in more meaningful conversations report greater satisfaction (Mehl et al. 2010), greater connectedness (Reis et al. 2000; Ujang et al. 2018), feel more socially connected (Wesselmann et al. 2012; Chen et al. 2020) and increased positive effect (Sandstrom and Dunn 2013). Although, social interactions have many positive effects, they also have negative characteristics, including social rejection, social appreciative threat, stress, and conflict, which can have deleterious consequences (Filipkowski and Smyth 2012; Kiecolt-Glaser, et al. 2010; Wirth et al. 2015). Despite the negative effect there is still need for effective social interaction as it is extremely important in ensuring social well-being, healthy activities in all spheres of society and consequently the development of any country as a whole.

### Social interaction in rural communities

Social interaction in rural community is defined as the related communal contact between residents while participating in various daily activities (Hesham et al. 2014). Everyday social contact and encounters are crucial to overcome ethnic and cultural differences (Aelbrecht 2019). Social life in rural areas is characterized by a high sense of togetherness among residents due to the high degree of intimacy (Susilawati 2012). The rural residents perform various activities together in the form of physical activities such as; cleaning the environment, building village halls and repairing other public facilities without expecting excessive wages that strengthen their interaction (John 2013). The interactions between rural dwellers encourage participatory aspirations within the community and subsequently lead to a sense of acceptance of one another's lives (Humaizi et al. 2018). Community participation enhance the creativity of rural life and helps to reduce social problems arising from economic, political and environmental issues (Mathbor 2008). However, low community participation in cultural activities can lead to loosening of links and has far reaching implications on social cohesion and sense of identity (Bakar et al. 2012). Over time, people's perceptions of social interaction have positively intertwined with residents' sense of community (Lund 2002; Ryan et al. 2005; Wood et al. 2010.)



suggested that the more people connected to their community, the more likely they are to engage in involuntary activities that work toward local benefit.

Rural people interact primarily through personal and traditional communication before the advent of telecommunications, through which deep relationships could be formed to a significant extent (Priatama et al. 2020). This action strengthened social capital (SC) and increased attachment to and dependence on the local community (Dallago et al. 2009; Lee and Jeong 2021; Adhikari et al. 2022). However, the advent of the internet has led to selective interaction with people based on interests (Priatama et al. 2020). This new style of rural social life could have both negative and positive effects, with the positive impact improving people's networks and understanding of the outside world, lifestyle and other personal aspects while the negative impact reduces dependence on native villages (Haythornthwaite and Wellman 2002).

### Research method

The choice of Peyi as a rural community in Abuja the capital of Nigeria was due to the fact that some of the living patterns observable in the urban areas are often reflected in the rural community on a different scale. The study was conducted over a period of three months which covered four days of the week, Fridays and Sundays were compulsory each week while the other two days were spread over the period of study and this allowed for a clear observation and interaction with the residents that made use of the community park. A mix methods approach was adopted for the study with the use of questionnaire, interview guide and observation checklist.



**Fig. 1** Wire mesh fence at Peyi park



**Fig. 2** Unfenced portion of Peyi park

In administering the questionnaire, the study identified peak periods and off-peak periods for the utilization of the park. Questionnaire was administered at both periods. The time of the day was also a consideration for the administration of the questionnaire, however there was no respondent available to respond to the questionnaire at night time. A sample size of 150 was considered adequate for the study as established by Marshall et al. (2013), in determining the sample size the study adopted a stratified random sampling method, as this allowed for the collection of data across different groups of users. Age and Gender was used as basis for the stratification in distributing the questionnaire. The distribution times of the question were morning period (7am-9am), afternoon period (1–2 pm) and evening period (4–6 pm). A total of 96 copies of the question were returned giving a return percentage of 64% which was considered adequate for analysis in a qualitative research according to Boddy (2016). The returned copies of the questionnaires were collated and inputted into SPSS for analysis using descriptive statistics. The results are presented in tables and charts, these findings were further supported with respondents' responses to interview questions. The images presented are to give a visual expression of what is obtainable in the park which further established the findings of the study.

### Discussion of findings

#### Overview of community park

Community parks are an integral part of any society for it to function properly and serve to improve the wellbeing of the people and the community at large. In the case of the Peyi community the same benefits were expected

to be derived from the users of the facility. The community park location is key in meeting the goal of improving social integration and interaction within the community, it is advisable that the community park is located in areas considered central within the community. There is no religious segregation to the use of the community park as the residents have a way of respecting individual religious differences and celebrations. The community park in Peyi community located at a central point within the community thereby ensuring that there is equal access to the park by all residents. The park is an open park with wire mesh fences hence there is little or no restriction in terms of access and exit from the park and it is maintained by the government so it is considered a public park. The nature of wire mesh fence used allowed for easy damage which hence made the park porous and accessible from anywhere as seen in Figs. 1 and 2. There is provision for few garden seats while majority of the users are encouraged to sit on the lawn directly or on their garden mats which would improve the social interactions and offer a better relaxation option. The provision of a fountain within the park is major source of attraction to the park and it is accessible at any time of the day however the level of security is poor hence many of the residents do not

make use of the park at night. The park has no building for shops rather vendors are allowed to provide snacks on mobile cart where users of the parks can afford to buy a few snacks in case they did not bring any to the park. The parking spaces for the users is off the road adjoining the park and it allows for the users to walk within the park on foot hence make the park user friendly. The central location of the park ensures the residents in the rural community of Peyi get to decide when to use the park for recreation on an individual basis. There are no permanent nor regular activities that take place in the park that would have significant effect on the social activity of the residents. The usual social activities of rural communities is often dictated by their cultural activities which often took place in the village square, hence an community park gave a semblance of what is obtained in the urban areas for those who sought to have a close to urban life experience without leaving their community.

#### Rating of social interaction and spaces for interaction in the park

In consideration of the social interaction that occurs in a community park like the community park at Peyi, the

**Table 1** Respondents opinion on of social interaction and spaces within the community park

Variable	Very good X1	Good X2	Poor X3	Very poor X4	Sum	Mean	Interpretation
Adequacy of your interaction with people of different religious affiliation	49	54	27	16	146	1.640449	Good
Pleasantry level in living with people	26	94	30	32	182	2.000000	Good
Use of park as meeting point to friends and families?	17	48	51	52	168	2.366197	Good
Level of interaction between people in public place?	17	88	54	52	211	2.293478	Good
Relationship with people of different tribe and culture in the park	25	94	27	32	178	2.000000	Good
Level of participation in social events held at park	24	92	57	28	201	2.093750	Good
Interaction with people of different level of education qualification at park	24	80	51	44	199	2.163043	Good
Interaction with people of different socio-economic category in the community	18	96	45	48	207	2.225806	Good
Adequacy of facilities within park	8	48	156	40	252	2.680851	Poor
Security within the park	17	98	66	28	209	2.200000	Good
Accessibility to the park for users	15	86	57	44	202	2.295455	Good
Adequacy of spaces provided in the park	9	46	123	84	262	2.787234	Poor
Comfort of the play area for users	21	96	54	32	203	2.136842	Good
Privacy within the park	5	32	156	76	269	2.923913	Poor
Opportunities for interaction provided by spaces within the park	13	110	57	28	208	2.212766	Good
Suitability of park for all age groups	2	40	183	36	261	2.836957	Poor
Friendship development opportunities as a function of arrangement of facilities	16	100	54	20	190	2.134831	Good
Conveniences provide within park	5	52	141	60	258	2.774194	Poor
Landscape features within park	11	94	69	48	222	2.387097	Good
Safety of users of park at night time	3	38	174	60	275	2.894737	Poor
Visual comfort within park	11	114	51	24	200	2.197802	Good

need to obtain the users' view regarding their type of interactions and the perception of the spaces in terms of how it affects interaction. This was obtained using a likert scale of measurement and based on the findings the mean score was obtained to enable a categorisation of the views on each variable. The decision on the mean each variable was determined based on the following scale:

1.0–1.49	Very Good
1.5–2.49	Good
2.5–3.49	Poor
> 3.50	Very Poor

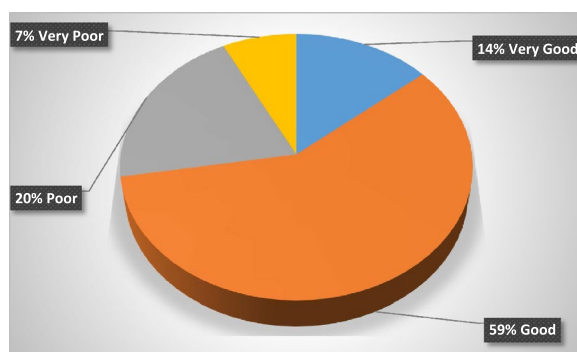
It is observable from Table 1 that the respondents considered their relationship with other people regardless of their socio-cultural, religious or socio-economic status as being good. Table 1 also shows that the variable regarding interaction with people with other faith scored the best value, this goes to show that the respondents consider themselves as being liberal in relating with people. This singular trait is interpreted to connote the ability of the respondents to be favourably disposed to the use of the community park and hold no religious misgivings towards the provision of Community Park. In one of the interviews with the respondents a few stated the periods when the park was at peak use was during festive periods.

*Respondent 6*

*this park is always bubbling with people during the Sallah or Christmas period, that's when you will see everyone coming out and the place will be crowded*

*Respondent 11*

*the crowd during Muslim or Christian public holidays is always more than other periods at such periods I make sure go early with my family before it gets busy*



**Fig. 3** Spaces providing opportunities for interaction amongst users

The adequacy of the facilities and spaces provided in the park is rated poor as presented in Table 1. This can be understood when compared with the growing population of the community and the inability of the park to increase in size. The issue of privacy within the park was equally scored low even though this is a public space and privacy could easily be overlooked, however upon further interaction with the respondents they opined that some level of privacy is required. A particular respondent stated that:

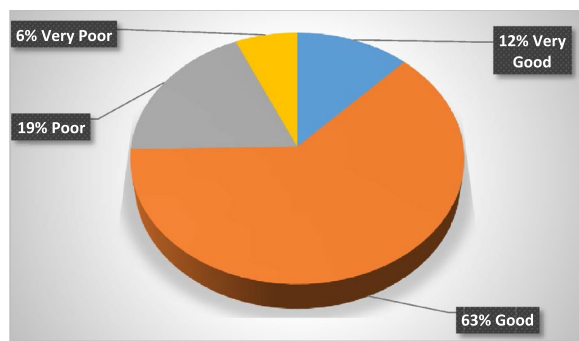
*even if it is a public area, there should still be space between where different groups of people sit. How will I go to a park to relax with my family and another family will almost be sharing our mat because the place is not large enough*

The variable regarding the suitability of the park for all age groups was scored as poor and this was clearly understood because the spaces provided for the children were not adequate as many respondents stated clearly that their children were often the primary reason for visiting the park. The issue of safety within the park at night was scored low despite the provision of garden lights within the park, this could be linked to the general personal perception of safety considerations by respondents. Variables relating to the community park either improving the social interaction amongst user or creating avenue for interaction were scored as good. This further shows the importance of community parks in the social balance of a community or society.

#### Opportunities for interaction provided by spaces within the park

One of the key reasons for setting up a community park as already stated by researchers (Milman 2001; Poodeh and Vali 2014; Shuib et al. 2015) is the need to create an environment away from homes that encourages relaxation while improving the unity and integration of the residents of the community of which Peyi is no different. The opportunity for relaxation is already considered in the choice of location for the community park in terms of travel time to the park which should be approximately at equal distance for every resident. The facilities in the park themselves should be such that allow users to get relaxed as much as possible, hence attention is often placed on provision of lawns and trees that help provide shade for sitting. It was therefore not a surprise to find that the Community park at Peyi was no different as there were very few park benches available at considerable distances apart. The seats were provided in such a way that it did not encourage a group meeting using the benches, rather if groups needed to meet and discuss this was done on the lawns where users sat. This rating of the variable is





**Fig. 4** Perception of visual comfort within park

shown in Fig. 3 where 73% of the respondents considered the opportunities provided for interaction as being at least good. The use of none linear pattern of arrangement of the seats and also the lack of defined walkways ensured that the park had a sense of freedom of expression as determined by the users. This freedom of expression by the users ensured there was increase in chance meetings by users as the open spaces were spread across the park and interjected with trees and children play equipment. The water body and the fountain were spaced apart so that users could have different water experiences while at the park and equally reduce the concentration of users at one spot. A few of the respondents stated that their children were responsible for their movement around the park considering that they always seek to play around the park and they the parents keep an eye on them. It was at these periods that they often strike up conversation with other users of the park. Two respondents were categorical in their response regarding the interaction when using the park:

*Respondent 3*

*my children will always run around the park always trying to play with every item in the park, that why I have to keep following them and I will now meet other parents doing similar things and we start to talk*

*Respondent 7*

*the insecurity and crime in the society will not allow me to leave my kid to go playing alone, so I have to plan my time and pick good points of view around each play facility even if it means starting a conversation with someone I have never spoken to before*

### Visual comfort within park

An environmentally and aesthetically pleasing environment is a major requirement for Community Parks due

**Table 2** Accessibility to the park vs level of participation in social events held at the park

	Level of participation in social events held at park			
	Very good (%)	Good (%)	Bad (%)	Very bad (%)
<i>Accessibility to the park</i>				
Readily accessible	30.91	61.82	7.27	0
Not readily accessible	15.15	36.36	33.33	15.16

to the need to attract users and make it more comfortable outdoor space. In achieving this specific need, attention expected to be paid to the physical environment and the surrounding features at the park. A common aspect of the comfort in the park is the visual comfort of users, which is often determined by several factors such as natural features like hills, water bodies, trees or shrubs. In cases with man-made features, the features must be arranged in a format that allows them to fit seamlessly into the site. The users of the park should not feel any form of physical discomfort resulting from the design of the community park. However, the issue of visual comfort is a subjective design requirement. In the case of the community park at Peyi, the landscape features provided an opportunity to improve visual comfort. It can be observed from Fig. 4 that a minimum of 75% of the respondents considered the visual comfort in the park as being good. This was attributed to the open nature of the design of the community and the adequate spatial distribution of the trees with minimal built-up area. The 25% of the respondents that considered the visual comfort in the park as being poor cited the issue of obstruction of line of vision when then the park is being used at full capacity. This particular reason can be excused due to the fact that there is a limitation placed on the park in terms of land size. A further reason given as the basis for rating the visual comfort as being poor was due to the need to separate certain adjoining properties from the line of vision of the users. It can be inferred that there is strong need for parks to be shielded with a row of trees and shrubs from adjoining properties that do not have complementary and aesthetically pleasing appearances. The need to properly maintain the community park in terms cutting the lawn and removal of dead leaves and branches from the lawn rather allowing them to decay on the lawn is a central management requirement.

### Accessibility to park relationship with participation in social events at park

It is generally accepted that the activities that take place within the community park are considered as social



events regardless of the nature of such activities. These activities always generate some form of social interaction within the park and these interactions often foster unity with the community and amongst the residents. In the case of Peyi community, there are several social events that take place within the community park and in some cases certain sections of the park where such activities are restricted to other users of the park. In examining the relationship between the variables of accessibility to the park and the level of participation of the park, Table 2 showed that the respondents who could readily access the community park consider participation in social events as being good with 92.73% as compared to the 51.51% of those who could not readily access the park. A further interaction with some of the respondents who were of the opinion that they could not readily access the park and participate in the social activities stated that the open nature of the park still allowed them to interact with other users at the peripheral of the park. The respondents also stated that their inability to readily access the park was not a daily occurrence rather it was on occasions where there were special social events at the park and the attendance was strictly on invitation. The apparent central location of the park and its openness in design ensured that the frequency of use and access into the park was high and it was also difficult for anyone or group to claim total lockout of other users.

## Conclusion

The general overall concept of community park or community parks is to foster unity within the community and this was the case with Peyi community given the location of the park which was centrally located thereby giving equal access to all the community residents. It is usually an assumption that community parks would often improve the social interaction within a community and this belief could be wrong in certain cases if not constantly evaluated with the view of ensuring that the needs and aspirations of the residents are met. It was this assumption that underpinned this study and it was established by the study that social interaction amongst users of the park could be affected by several variables that hitherto were not envisaged at the design stage. The study revealed that personal preferences greatly determined how the users rated the community park and a high percentage of the users considered their interaction within the park to be good. Adequacy of facilities and spaces was rated quite low and this could have high impact on the community park design and utilization. The study revealed that the perception of safety affected the periods at which the residents used the park as many did not consider visiting the community park at night an option. The study concluded that social interaction amongst users

within the park is rated good hence the aim of the community park provision was met even though there is need to improve the facilities and nature of spaces provided. In order to rate a community park as fully meeting the needs and aspirations of the users, the users should be able to make use of the park at any time of the day. This was not the case with the Peyi park because residents considered the use at night as being unsafe. It is therefore necessary for architects and professionals involved in community park designs to consider innovative ways of ensuring safety at night through the use of motion sensitive lighting systems and other passive security measures that would not interfere with the users' experience within the park at any time of the day.

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## Author contributions

OFA: He was responsible for the overall structure of the paper, the Introduction and analysis and part of discussion of the paper. DOA: He was responsible for the literature review section and proof reading of the paper. ATA: She contributed to the literature review, part of the discussion of the paper and the selection of relevant sample frame. APA: She was responsible for the collation of data and entering into SPSS, she equally contributed to the research method section of the paper. MAA: She was responsible for the administration of the research instrument in the field along with processing of the images used in the paper. She also ensured that the citations and references were accounted for.

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## Availability of data and materials

All data and material not sourced directly by the authors from fieldwork have been duly acknowledged and we have not violated any copyright requirements.

## Declarations

## Competing interests

The authors declare that they have no competing interests.

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## References

- Adhikari S, Mandal A, Kujur F, Guha S (2022) "Place attachment, migratory behaviour and its impact on economic activity: a study with special reference to Eastern India. *Rajagiri Manag J*. <https://doi.org/10.1108/RAMJ-11-2021-0081>
- Aelbrecht P (2019) New public spaces of circulation, consumption and recreation and their scope for informal social interaction and cohesion: an international comparison. *Public Space Des Soc Cohes* 1:1. <https://doi.org/10.4324/9780429489150-10>
- Fadamiro AJ, Adediji JA (2014) Recreational experiences in parks and gardens, Ibadan, Nigeria. *J Place Manag Dev* 7(1):5–26. <https://doi.org/10.1108/JPMDD-11-2013-0023>

- Akova O, Şahin G, Öğretmenoğlu M (2019) The effect of recreation experience on psychological well-being: a research on generation. *Spor Bilimleri Araştırmaları Dergisi* 4(2):124–139. <https://doi.org/10.25307/Jssr.579581>
- Aleksandrova YS (2011) Theme parks in the world. Cambridge University Press, Cambridge
- Al-Bishawi M, Ghadban SS (2011) A methodological approach for reading urban open space. *Int J Archit Res* 5(1):73–85
- Amal RK, Hana MF (2015) The role of the social relations in successful social interactions and language acquisition. *Res Human Soc Sci* 4:194–198
- Anon (n.d) <https://www.brec.org/ParkTypes#:~:text=A%20Community%20Park%20is%20the,diverse%20activities%20and%20amenities%20throughout>
- Arai S, Pedlar A (2003) Moving beyond individualism in leisure theory: a critical analysis of concepts of community and social engagement. *Leis Stud* 22:185–202. <https://doi.org/10.1080/026143603200075489>
- Arnott J, Duffield BS (1980) Leisure and community development in remote rural areas. Paper presented at the Leisure and Rural Society, London
- Azmi DI, Karim HA (2012) Implications of walkability. *Procedia Soc Behav Sci* 50:204–213
- Bakar AA, Osman MM, Bachok S, Jaafar S (2012) Community involvement in cultural activities: theories and concepts. In: Proceedings of the first international conference on Islamic built environment, Sao Paulo, Brazil
- Baumeister RF, Leary MR (1995) The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychol Bull* 117:497–529. <https://doi.org/10.1037/0033-2909.117.3.497>
- Boddy CR (2016) Sample size for qualitative research. *J Cetacean Res Manag* 19(4):426–432. <https://doi.org/10.1108/QMR-06-2016-0053>
- Brown G, Schebella M, Weber D (2013) Using participatory GIS to measure physical activity and urban park benefits. *Landsc Urban Plan* 121:34–44
- Camp D (1997) Theme parks in Europe. *Travel Tour Anal* 5:4–21
- Chen Y-L, Chen J, Liu W-Y, Sharma T (2020) Expected benefits of people interactions and guest experiences. *Int Hosp Rev* 34(2):187–202. <https://doi.org/10.1108/IHR-04-2020-0010>
- Chi NTK (2022) Environmentally responsible behaviour in outdoor recreation: the moderating impact of COVID-19 related risk perception. *J Tour Fut.* <https://doi.org/10.1108/JTF-09-2021-0234>
- Contente CM (2016) Analysis of amusing the million: Coney island at the turn of the century. In: Kasson JF (ed) *The histories*, vol 3(1), Article 3
- Cross GS, Walton JK (2005) *The playful crowd: pleasure places in the twentieth century*. Columbia University Press, New York
- Dallago L, Perkins DD, Santinello M, Boyce W, Molcho M, Morgan A (2009) Adolescent place attachment, social capital, and perceived safety: a comparison of 13 countries. *Am J Community Psychol* 44:148–160. <https://doi.org/10.1007/s10464-009-9250-z>
- Donnelly P (2002) The crisis in schools sports: issues and resolutions. Colloquium report, Centre for sport policy studies, University of Toronto
- Driver BL (1972) Potential contributions of psychology to recreation resource management. In: Wohlwill J, Carson DH (eds) *Environment and the social sciences: perspectives and applications*. American Psychological Association, Washington DC
- Driver BL (1997) The defining moment of benefits. *Park Recreat* 32(12):38–41
- Driver BL, Burns DH (1999) Concepts and uses of the benefits approach to leisure. In: Jackson EL, Burton TL (eds) *Leisure studies*. Ventures, State College, PA, pp 349–368
- Driver BL, Brown PJ (1978) The opportunity spectrum concept and behavioural information in outdoor recreation resource supply inventories: a rationale. In: *Integrated inventories of renewable natural resources: proceedings of the workshop*. United States Department of Agriculture, General Technical Report RM-55, Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO, 24–31
- Ferguson L (2015) A world of social interaction for all. *Qual Ageing Older Adults* 16(1):44–53. <https://doi.org/10.1108/QAOA-11-2014-0032>
- Filipkowski KB, Smyth JM (2012) Plugged in but not connected: Individuals' views of and responses to online and in-person exclusion. *Comput Hum Behav* 28:1241–1253
- Gallant K, Tirone S (2017) A 'good life without bells and whistles': a case study of immigrants' well-being and leisure and its role in social sustainability in Truro. *Nova Scotia Leisure/loisir* 41(3):423–442. <https://doi.org/10.1080/14927713.2017.1352456>
- Güneş SG, Parlak O (2020) The role of voluntary recreational activities in the United Nations 2030 sustainable development goals. *J Tour Gastron Stud.* 8:1–15. <https://doi.org/10.21325/jotags.2020.666>
- Hays JC, Steffens DC, Flint EP, Bosworth HB, George LK (2001) Does social support buffer functional decline in elderly patients with unipolar depression? *Am J Psychiatry* 158:1850–1855
- Haythornthwaite C, Wellman H (2002) The internet in everyday life: an introduction. In: Haythornthwaite C, Wellman B (eds) *The internet in everyday life*. Blackwell, Oxford, pp 1–41
- Henderson KA, Ainsworth BE (2002) Enjoyment: a link to physical activity, leisure, and health. *J Park Recreat Adm* 20(4):130–146
- Hesham EO, Ismail S, Hisyam RM (2014) Residents' perception towards social interaction among Malaysian ethnic groups in urban park. *International Congress on Interdisciplinary Behavior and Social Science 2014. Recent Trends in Social and Behaviour Sciences – Lumban Gaol et al. (Eds) At: Jakarta Indonesia, 04-05 Nov 2013 Volume: © 2014 Taylor & Francis Group, London, ISBN 978-1-138-00121-3*
- [https://www.victoria.ca/assets/Departments/Planning~Development/Community~Planning/OCF/Up~to~date~OCF~and~Design~Guide/lines/OCF\\_Section9.pdf](https://www.victoria.ca/assets/Departments/Planning~Development/Community~Planning/OCF/Up~to~date~OCF~and~Design~Guide/lines/OCF_Section9.pdf)
- Humaizi E, Sinaga RS (2018) Concord communications and interactions between ethnic groups supporting the candidate; case study on Paguyuban Suku Tionghoa Indonesia and Joko Tingkir in election of Medan City, 2015
- Jimmy GA (2005) *Tourism at a glance: contemporary issues in tourism and travels*. University Press, Ibadan
- John CC (2013) The togetherness of togetherness and separateness: some reflections on ASC/B.I.G. 2012. *Kybernetes* 42(910):1361–1366. <https://doi.org/10.1108/K-10-2012-006>
- Kiecolt-Glaser JK, Gouin JP, Hantsoo L (2010) Close relationships, inflammation, and health. *Neurosci Biobehav Rev* 35:33–38
- Kirkcaldy B, Shephard R, Siefen R (2002) The relationship between physical activity and self-image and problem behaviour among adolescents. *Soc Psychiatry Psychiatr Epidemiol* 37:544–550. <https://doi.org/10.1007/s00127-002-0554-7>
- Leary MR, Diebels KJ, Jongman-Sereno KP, Fernandez XD (2015) Why seemingly trivial events sometimes evoke strong emotional reactions: the role of social exchange rule violations. *J Soc Psychol* 155:6:559–575. <https://doi.org/10.1080/00224545.2015.1084985>
- Lee KY, Jeong MG (2021) Residential environmental satisfaction, social capital, and place attachment: the case of Seoul, Korea. *J Hous Built Environ* 36:559–575. <https://doi.org/10.1007/s10901-020-09780-2>
- Li C-L, Wang C-Y (2011) Recreation benefit, quality of life and life satisfaction. Conference: Proceedings of the First International Conference on Emerging Research Paradigms in Business and Social Sciences
- London M, Crandall R, Fitzgibbons D (1977) The psychological structure of leisure: activities, needs, and people. *J Leis Res* 9(4):252–263
- Long PT, Kraus B (1983) Colorado rural recreation director's report. *Rural Educ* 5(1):12–16
- Lund H (2002) Pedestrian environments and sense of community. *J Plan Educ Res* 21:301–312. <https://doi.org/10.1177/0739456x0202100307>
- Marshall B, Cardon P, Poddar A, Fontenot R (2013) Does sample size matter in qualitative research? A review of qualitative interviews in is research. *J Comput Inf Syst* 54(1):11–22. <https://doi.org/10.1080/08874417.2013.11645667>
- Mathbor GM (2008) *Effective community participation in coastal development*. Lyceum Books, Oxford
- Mehl MR, Vazire S, Holleran SE, Clark CS (2010) Eaves dropping on happiness. *Psychol Sci* 21:539–541. <https://doi.org/10.1177/0956797610362675>
- Merchant G (2006) Identity, social networks and online communication. *e-Learning* 3:235. <https://doi.org/10.2304/elea.2006.3.2.235>
- Middleton, S. (2000). Sheep to shore: the role of sport and recreation in stemming the rural urban drift. *Aust Parks Leisure* 3(1):11–1. *Niger J Sociol Anthropol* 12(1)
- Milman A (2001) The future of theme parks and attraction industry: a management perspective. *J Travel Res* 40:139–147
- Tahroodi MF, Ujang N (2022) Engaging in social interaction: relationships between the accessibility of path structure and intensity of passive social interaction in urban parks. *Archnet-IJAR* 16(1):112–133. <https://doi.org/10.1108/ARCH04-2021-0100>

- Nkwanyana S (2020) Recreation and leisure in promoting social inclusion: a reflection of documented theory. *African J Hosp Tour Leisure* 9(2):1–9
- Nya C, Duncan L (2016) Exploring the tourist destination as a mosaic: the alternative life cycles of the seaside amusement arcade sector in Britain. A University, Department of Tourism and Hospitality, Fern Barrow, Bournemouth, BH12 5BB, UK
- Obinna V, Owei O, Aroyehun A, Okwakpam I (2009) Patterns and determinants of recreational behaviour in Port Harcourt, River State, Nigeria. *Theor Empir Res Urban Manag* 3(12):150–165
- Oncescu J, Robertson B (2010) Recreation in remote communities: a case study of a Nova Scotian village. *J Rural Community Dev* 5(1–2):221–237
- Oncescu J, Giles A (2012) Changing relationships: the impacts of a school's closure on rural families. *Leisure/loisir* 36(2):107–126. <https://doi.org/10.1080/14927713.2012.724961>
- Paksoy M (2016) Factors affecting the participation of Abdullah Gul university students in recreation activities. *Int J Sport Culture Sci* 4(1):39–50. <https://doi.org/10.14486/IntJSCS532>
- Parker SD (2001) Rural 2000 and beyond. *Rural Spec Educ Q* 20(1):43–55
- Payne LL, Schaumleffel NA (2008) Relationship between attitudes toward rural community parks and recreation and rural community satisfaction. *J Park Recreat Adm* 26(3):116–135
- Perez A, Keller C, Nunez M (2010) Leisure, health, and adjustment of immigrants. In: Payne L, Ainsworth B, Godbey G (eds) *Leisure, health, and wellness: making the connections*, pp 373–381. Venture Publishing, Inc., State College, Pennsylvania
- Poodeh SR, Vali AHP (2014) Investigating the characteristics of open spaces to enhance social interactions in neighborhood environments. *Eur Online J Nat Soc Sci* (Unpublished)
- Priatama RA, Onitsuka K, Rustiadi E, Hoshino S (2020) Social interaction of Indonesian rural youths in the internet age. *Sustainability* 2020(12):115. <https://doi.org/10.3390/su12010115>
- Ramsey D, Smit B (2002) Rural community well-being: models and application to changes in the tobacco-belt in Ontario. *Canada Geoforum* 33:367–384. [https://doi.org/10.1016/S00167185\(02\)00008-8](https://doi.org/10.1016/S00167185(02)00008-8)
- Reis HT, Sheldon KM, Gable SL, Roscoe J, Ryan RM (2000) Daily well-being: the role of autonomy, competence, and relatedness. *Pers Soc Psychol Bull* 26:419–435. <https://doi.org/10.1177/0146167200266002>
- Roddy L, Pohle-Krausz RJ, Geltz B (2017) Recreation center utilization affects academic outcomes. *Recreat Sports J* 41(1):67–75. <https://doi.org/10.1123/rsj.20160041>
- Ryan V, Kerry D, Agnitsch A, Zhao L, Mullick R (2005) Making sense of voluntary participation: a theoretical synthesis. *Rural Sociol* 70(3):287–313
- Sandstrom GM, Dunn EW (2013) Is efficiency overrated? Minimal social interactions lead to belonging and positive affect. *Soc Psychol Pers Sci* 5:436–441. <https://doi.org/10.1177/1948550613502990>
- Sedinkin. (2009) Economic-geographical aspects of development theme parks in the world. *Bull Natl Acad Tour* 2(10):37–40
- Sevin DS (2016) A study to determine the relationship between small workers' participation levels in recreational activities and their work performance. *J Recreat Tour Res* 3(1):24–31
- Shuib KB, Hashim H, Nasir NAM (2015) Community participation strategies in planning for urban parks. *Procedia Soc Behav Sci* 168(311):320. <https://doi.org/10.1016/j.sbspro.2014.10.236>
- Smyth J, Zawadzki M, Santuzzi A, Filipkowski K (2014) Examining the effects of perceived social support on momentary mood and symptom reports in asthma and arthritis patients. *Psychol Health* 29:813–831
- Stebbins RA (2021) *Leisure lifestyle theory and research Leisure lifestyles*. Emerald Publishing Limited, Bingley, pp 1–21. <https://doi.org/10.1108/978-1-801176002>
- Sugiyama T, Ward-Thompson C (2007) Outdoor environments, activity and the well-being of older people: conceptualizing environmental support. *Environ Plan A* 39(8):1943–1960
- Sugiyama T, Ward-Thompson C, Alves S (2009) Association between neighborhood open space attributes and quality of life for older people in Britain. *Environ Behav* 41(1):3–2
- Suresh B, Ashoka N, Shankaranarayanan (2020) Digital queuing in amusement parks possibilities and challenges. Master's Thesis in Quality And Operations Management run Babu Department of Technology Management and Economics Division of Service Management and Logistics Chalmers University Of Technology Gothenburg, Sweden 2020. [www.Chalmers.Sereport](http://www.Chalmers.Sereport) No. E2020:111
- Susilawati N (2012) *Sosiologi Pedesaan*; INA-Rxiv: Padang, Indonesia
- Suto M (2013) Leisure participation and well-being of immigrant women in Canada. *J Occup Sci* 20(1):48–61. <https://doi.org/10.1080/14427591.2012.732914>
- Stinnett B, Gibson F (2016) Sustainable facility development: perceived benefits and challenges. *Int J Sustain High Educ* 17(5):601–612. <https://doi.org/10.1108/IJSHE-09-2014-0133>
- Tonts M, Atherley K (2005) Rural restructuring and the changing geography of competitive sport. *Aust Geogr* 36(2):125–144. <https://doi.org/10.1080/00049180500153468>
- Torkildsen G (2005) *Leisure and recreation management*, 5th edn. Routledge, London
- Tyrvalden L (2001) Use and valuation of urban forest amenities in Finland. *J Environ Manag* 62(1):75–92
- Ujang N, Kozlowski M, Maulan S (2018) Linking place attachment and social interaction: towards meaningful public places. *J Place Manag Dev* 11(1):115–129. <https://doi.org/10.1108/JPM-D-01-2017-0012>
- Wesselmann ED, Cardoso FD, Slater S, Williams KD (2012) To be looked at as though air: civil attention matters. *Psychol Sci* 23:166–168. <https://doi.org/10.1177/0956797611427921>
- Wirth JH, Bernstein MJ, LeRoy AS (2015) Atimia: a new paradigm for investigating how individuals feel when ostracizing others. *J Soc Psychol* 155(497):514
- Wood JL, Frank L, Giles-Corti BD (2010) Sense of community and its relationship with walking and neighbourhood design. *Soc Sci Med* 70:1381–1390. <https://doi.org/10.1016/j.socscimed.2010.01.021>
- Xindong W, Bo Z, Dingming Z, Xiaoxia W, China B, Yi S, Lin P, Xiaofeng W (2021) Contamination, distribution and health risk assessment of risk elements in topsoil for amusement parks in Xi'an. *Pol J Environ Stud* 30(1):601–617. <https://doi.org/10.15244/pjoes/123606>
- Zygmunt K (2012) Amusement parks as flagship tourist attractions. *Development and globalization. Econ Rev Tour* 3:156–163

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