COMMUNITY PERCEPTIONS OF AN URBAN PARK AS AN INDICATOR FOR QUALITY OF LIFE

L. Shahzad, B. Afzal, F. Sharif and A. Mansoor

Sustainable Development Study Centre, Government College University, Lahore, Pakistan. Corresponding author's Email: lailashahzad@gcu.edu.pk

ABSTRACT: In time of urbanization, Green spaces of parks provide many services for improvement of quality of life. The current study was carried out using a survey questionnaire in Jillani Park Lahore. Two hundred visitors were randomly included as study population. Descriptive analysis and analysis of variance were used to determine variation of influence. Most of the visitors (88.5%) experienced a change in concentration level of thinking which indicated that natural greenery provided peace of mind. Respondents (90.5%) of the study agreed that the park were beneficial to the surrounding community. In context of health, 99.5% of visitors agreed that place was a source of fresh air and 96.5% felt mental satisfaction. Analysis of variance showed positive significant results with age, income and occupation of the visitors. The study revealed that Jillani Park was very helpful in providing beneficial services and good quality of life to the visitors.

Key words: Urbanization, green space, urban park, quality of life.

(*Received 22-03-2016* Accepted 10-03-2017)

INTRODUCTION

Urbanization is one of the burgeoning problems of the world and more severe in developing countries. It is an outcome of transition from an agrarian society to industrial. As an aftermath, population is now growing in urban cities converting them into mega cities and more (Yang et al., 2017; UN, 2014 and Wang et al., 2012). In the South Asia, Pakistan has the highest rate of urbanization (3.06%) annuals (Jan et al., 2008). In this changing scenario, open green spaces has turned to congested. Urban parks are significant contributors in improving the quality of citizen's life (Ives et al., 2017 and Relf, 2008). Urban Parks facilitate community through providing several services like recreational, environmental, health, spiritual and psychological (Hussain et al., 2010; Iamtrakul, 2005; Midden and Barnicle, 2004; Chang, 2004; and Jackson, 2003). Urban parks provide different kinds of benefits like stress reduction, sense of harmony, peace, health improvement and recreational activities (Salazar and Rausell, 2008; Chiesura, 2004). Importance of urban park for the city's environment is like a buffer and enhance quality by providing multi benefits. Citizens and urban green spaces have a strong relationship with behavior pattern, level of perception and social representation (Younis et al., 2008; Strigsdotter, 2005). In congested areas and cities, problems like traffic, pollution and lack of society binding create a need of parks and gardens (Margaritis and Kang, 2017).

The structure and functions of Urban Parks is valuable for the society being green lungs generating wellbeing, not only for those who use them but also for entire population. Physical surroundings and socioeconomic conditions of urban environment are improved by parks (Husain *et al.*, 2010; Sherer, 2003). Open spaces provide opportunity for celebrating cultural diversity (Grahn and Stigsdotter, 2003). Urban trees provide cooling effect, prevent warming, act as wind break, reduce air pollution and sequester CO_2 (Sadeghian and Vardanyan, 2013; Johnson and Coburn, 2010). Present study was conducted in Jillani Park to assess the visitors' perception of an urban park in improving quality of life.

MATERIALS AND METHODS

Study site and design: The current study was carried out in the Jillani Park, Lahore (31°32'N and 74°20'E) whose old name was Racecourse Park. The park was operative since October 3, 1985 and located on Jail road Lahore; managed by Parks and Horticulture Authority Lahore. This park was selected for the study purpose on the basis of richness in terms of a green urban area and the well provided facilities to its users (Shahzad *et al.*, 2016). The study population comprised of visitors of Jillani Park, who came from different socio-economic backgrounds. The survey was conducted by using the semi-structured questionnaire with 200 visitors of age above 15 years.

Study Instrument: A 31-items based semi-structured questionnaire was designed to assess park contribution in improving the quality of visitor's life. The four sections of questionnaire were developed; first section of socioeconomic and demographic characteristics gathered information about gender, age, educational, job status and income, second section intended the questions about

respondent's recreational behavior through visiting pattern, travelling time, with whom they visit, and purpose of visiting, third section of visitor's personal and health benefits inquired about feelings nature evokes in them, how time spent in park, overall impression of park, opportunity of inhaling fresh air, mental satisfaction, rate of sport and exercise facilities, and presence of jogging path, fourth section of social benefits and environmental benefits questioned from the visitors regarding aesthetic sense, opportunity of social interaction, social security and rating the park's facilities, pollution control, any sound and maintenance of plants.

Field Survey: The field survey was carried out in two steps; preliminary was pilot survey consisting of 15 face to face interviews with visitors to justify the statement's structure of the questionnaire. After pilot surveys, main surveys were carried out using final version of questionnaire with 200 visitors of park. In each survey, Consent was taken from the respondents prior to interview. Descriptive analysis was applied by using SPSS (version 18) for analyzing the frequency, percentage and one way analysis of variance (ANOVA) was used for measuring the relationship of visiting pattern of respondents with variables of influence. Keeping the research context in consideration, a theoretical framework of the study was developed (Fig 1).

RESULTS AND DISCUSSION

Socio-Economic and Demographic Characteristics: The results revealed that participation of male and female visitors was 62% and 38% respectively. Highest numbers of visitors (38%) were of age 26-40 whereas older people (above 60) were least (3%). Although people above age 60 years become physically weak and vulnerable to more diseases however more exercises and visit the parks required. Students were visiting mostly for study purpose in peaceful environment whereas most ladies came for physical fitness. Mostly visitors were graduate; it shows that literate group had better understanding about visiting the parks. Analysis of variance (ANOVA) was done to find out the relationship of visiting pattern of the respondents with other variables like age, income, occupation, reason of visiting, short and long term benefits, and physical activity in the park (Table 1). Highly significant relationship appeared with age of respondents (F=5.98, p < .01). It showed people with more age were visiting the park more as compared to young ones, mostly people of 41-60 year old. Another reason was that at this age, people mostly visit with their families especially for young children. Occupation has shown significant relationship (F=4.36, P < .05). Occupation like semi-government, government, Private employ, Business owner and unemployment categories were asked in interview. In this research work, visitors were mostly consisted of house wives (ladies) and students. Income had significant relationship (F=3.26, p < .05). Income had effected the visiting pattern. High income people can visit more as compared to low income people.

Visitor's Recreational Behavior: People visiting pattern was different but people visiting on daily basis were higher in number (41%) for health improvement and relaxation. Weekly visitors came for same reasons i.e. for walk, enjoyment, relaxation and to enjoy nature. Yearly visitors were those who mostly came from other cities. Mostly people came in the evening time (61.5%) with families and for children play. Similar results were shown by the study conducted in Helsinki, Finland (Heidt and Neef, 2008). Visitors enjoyed natural places for inhaling fresh air and to relax mentally as well as physically. Same results were reported by Chiesura (2004). The park remained a busy place whole of the week days (94.5%) due to better quality of park than others in terms of its maintenance and various facilities. Green spaces in a city play an important role in helping residents and visitors to escape temporarily from the crowded streets and buildings (Bishop et al., 2001). It is needed to develop relationship of people with nature. It can help them in conserving and protecting the green spaces (Relf, 2008). About 50% of the visitors reported relaxation while visiting park. Reason of visiting the park has also shown high significant relation (F=10.03, p < .01). Types of benefits has high significant relation too (F= 3.27, p < .01). Those who visit more, they gain benefits like happiness, unity with nature, health improvement and relaxation. It all contributed in enhancing their wellbeing. Physical activity and visiting pattern has less significant relationship (F=2.83, p < .1) (Table 1). Physical activities were much affected by visiting pattern. People came on daily weekly and monthly basis. Only physical activity is more common among daily comers not in weekly and monthly comers.

Personal and Health Benefits from visiting Park: Out of 200 visitors, 36% liked the scenic beauty of park. It was adored more by the visitors due to good plantation and lush green ground and services like gym facility separately for ladies and gents. Tracks were constructed with mud and concrete material. Happiness was derived by 50% people. As a result happiness and freedom feelings were mostly evoked in visitors. In "Any other" option people felt divine powers and experienced the nature closely. In response of any change came in visitors behavior, 90% visitors agreed on positive change. Majority (90.5%) said that whole community got its benefits approximately 84.5% people said that their time spends here very well. These results are similar to findings of Maas et al., (2009). In parks when people find benefits like happiness, relaxation, spiritual connection

with nature and cut off from hectic routine of busy life, these all contributed in quality of life (Björk et al., 2008). Mostly people forgot home tensions and when went back to home; their attitudes with family remained good, these intangible benefits are very important for daily life. Absence of such green places can affect socio-economic conditions and health in long term (Thompson, 2002). Concentration level of thinking was affected among 88.5%, as they could make good decisions due to better thinking power. Such results were also supported by the study of Ridder (2001). Generally (94%) visitors were satisfied with the overall impression of the park, 99.5% agreed that the park is a source of fresh air and 96.5% people find mental satisfaction as shown by the study conducted by Annerstedt et al. (2012). Respondents (98.5%) agreed that park's visit had positively affected their health. So result showed this park improves the health of visitors (Stewart, 2004; Maas et al., 2006; Stigsdotter et al., 2010 and Weber and Anderson, 2010). Physical activity of 75.5% respondents remained very good during the stay in park. Similar results were shown by Coombes et al. (2010) and Mitchell (2012). Almost all respondents (100%) agreed that green spaces improve well-being of citizens.

Social and Environmental Benefits of visiting urban park: About 90.5% people replied that park had increased aesthetic sense by providing lush green grass, colorful flower plantation and tall trees. Park enhances the beauty of area and its economic value. In related work done by Heidt and Neef (2008), Cho *et al.*, (2008) it was indicated that urban parks improved property values of the surrounding area. The waste of park was burnt openly, it was contaminating the environment, and mostly people had suggested that proper waste composting should be done. Visitor's felt freshness due to fresh air and greenery in the surrounding area. About Social interaction, 48.5% people agreed. Social interaction depended on visitors; some did not want to interact with unknown people. Whereas rest of the visitors said that the park provided comfortable place for the social cohesion. Similar findings were shown by the studies of Herzele and Wiedemann (2003); Parr (2007) and Maas et al. (2009). About social security in this park, 67% respondents gave positive response. Almost all respondents agreed (99%) that the urban parks enhanced beauty of cities and 78% people strongly agreed that parks helped in combating pollution. Many studies had shown such results e.g. Escobedo and Nowak, (2009). Loures et al. (2007); Nowak et al. (2006); and Yang et al. (2005). Most of the Respondents (98.5%) said that more parks can give better environmental conditions in congested surroundings. Studies of Paoletti et al. (2011) and Cavanagh et al. (2009) showed same results. In park the dominant sound was bird's voice because 68% enjoyed it. Parks tree, flowers and flower beds maintenance was very good. Approximately, 78% of respondents agreed to the park's vegetation and quality of maintenance. Results proved that visiting parks and green spaces for physical fitness or exercises play vital role in improving health of individuals. Similar results were provided by Maas et al. (2009); Parr (2007); Herzele and Wiedemann (2003); Khan et al. (2005). Healthy mind and body is essential requirements for a peaceful life. Lahore city is very populated and polluted due to the pressure of urbanization therefore this park is playing its role in enhancing its beauty and in combating pollution. On the basis of results gathered from the four important sections of the questionnaire viz. face to face interviews, a conceptual model was developed. This model was based on the visitors' perception of a green space in improving their lives' quality in an urban setting of Lahore (Fig. 2).

Table 1: Analysis of Variance effects of visiting pattern on different variables.

Variables	Sum of Squares	df	Mean Squares	F-value
Age	139.58	199	5.82	5.99***
Occupation	373.52	199	7.64	4.346**
Income	397.99	199	6.24	3.26**
Reason of visit	1329.55	199	56.75	10.03***
Types of benefits	350.88	199	5.51	3.27**
Physical activity	161.39	199	2.2	2.83*

*p<.1 **p<.05 ****p<.01



Figure 2: Conceptual model of urban parks and quality of life.

Conclusion: It is concluded that public parks are important for citizens lives to provide social,

environmental and health benefits. Visitor's understand importance of green areas as helpful in combating pollution. Visits of such parks improve mental health of visitors through exposure to natural elements. In time of urbanization and demand for sustainable resource management, such green spaces provide a good opportunity for the managers to uplift already existing facilities considering community preferences.

REFERENCES

- Annerstedt, M., P. O. Ostergren, J. Bjork, P. Grahn., E. Skarback, and P. Wahrborg (2012). Green qualities in the neighbourhood and mental health results from a longitudinal cohort study in Southern Sweden. BMC Public Health 12: 337.
- Bishop, I. D., W. S. Ye, and C. Karadaglis (2001). Experiential approach to perception response in virtual worlds. Landscape Urban Plan. 54(1-4): 117-125.
- Björk, J., M. Albin, P. Grahn, H. Jacobsson, J. Ardö, J. Wadbro, P. Östergren, and E. Skärbäck (2008). Recreational values of the natural environment in relation to neighbourhood satisfaction, physical activity, obesity and wellbeing. J. Epidemiol. Community Healt. 62(4): 2-2.
- Carreiro, M. M., Song, Y. C., and Wu, J. (Eds.). (2007). Ecology, Planning, and Management of Urban Forests. Springer: New York.
- Cavanagh, J. A.E., P. Zawar Reza, and J. Wilson (2009). Spatial attenuation of ambient particulate matter air pollution within an urbanised native forest patch. Urban For. Urban Gree. 8(1): 21-30.
- Chang, C.Y. (2004). Psycho-physiological responses to different landscape settings and comparison of cultural differences. Acta Hort. 639:57-66.
- Chiesura, A. (2004). The role of urban parks for the sustainable city. Landscape urban plan. 6 (1): 129-138.
- Cho, S., N. C. Poudyal, and R. K. Roberts (2008). Spatial analysis of the amenity value of green open space. Ecol. Econ. 66: 403-416.
- Coombes, E., A. P. Jones, and M. Hillsdon (2010). The relationship of physical activity and overweight to objectively measured green space accessibility and use. Social Sci. Med. 70: 816-822.
- Escobedo, F. J., and D. J. Nowak (2009). Spatial heterogeneity and air pollution removal by an urban forest. Landscape Urban Plan. 90(3-4): 102-110.
- Grahn, P., and U. A. Stigsdotter (2003). Landscape planning and trees. Urban For. Urban Gree. 2(1): 1-18.
- Heidt, V., and M. Neef (2008). Benefits of Urban Space for Improving Urban Climate. In Ecology, Planning, and Management of Urban Forests. Springer New York 84-96 p.

- Herzele, V. A., and T. Wiedemann, (2003). A monitoring tool for the provision of accessible and attractive urban green spaces. Landscape Urban Plan. 63: 109-126.
- Hussain, G., M. Nadeem, A. Younis, A. Riaz, M.A. Khan, and S. Naveed (2010). Impact of public parks on human life: A case study. Pakistan J. Agric. Sci. 47(3), 225-230.
- Iamtrakul, P. (2005). Walking and cycling behavior within the service area of public parks. J. East. Asia. Soc. for Transport. Studies, Japan 6:225-240.
- Ives, C. D., C. Oke, A. Hehir, A. Gordon, Y. Wang, and S.A. Bekessy (2017). Capturing residents' values for urban green space: Mapping, analysis and guidance for practice. Landscape Urban Plan. 161, 32-43.
- Jackson, L.E. (2003). The relationship of urban design to human health and condition. Landscape and Urban Plan. 64:191-200.
- Jan, B., M. Iqbal, and I. Din (2008). Urbanization trend and urban population projections of Pakistan using weighted approach. Sarhad J. Agric. 24(1):173-180.
- Johnson, I., and R. Coburn (2010). Trees for carbon sequestration. Prime Facts, Industry and Investment, NSW Government, Australia.
- Khan, M. A., A. Younis, and M. N. Aslam (2005). Impact of well-planned landscape on producing quality environment for prisoners. J. Agric. Soci. Sci. 1(1): 69-70.
- Loures, L., R. Santos, and P. Thomas, (2007). Urban Parks and Sustainable Development: The case study of Partimao city, Portugal, EEESD 17th Conference, Agios Nikolaos, Greece.
- Maas, J., R. A. Verheij, P. P. Groenewegen, S. D. Vries, and P. Spreeuwenberg (2006). Green space, urbanity, and health: how strong is the relation? J. Epidemiol. Community Healt. 60: 587-592.
- Maas, J., S. M. E. Van Dillen, R. A. Verheij, and P. P. Groenewegen (2009). Social contacts as a possible mechanism behind the relation between green space and health. Health Place, 15: 586-595.
- Margaritis, E., and J. Kang, (2017). Relationship between green space-related morphology and noise pollution. Ecol. Indic. 72, 921-933.
- Midden, K.S., and T. Barnicle (2004). Evaluating the effects of a horticulture program on the psychological well-being of older persons in a longterm care facility. Acta Hort. 639:167-170.
- Mitchell, R. (2012). Is physical activity in natural environments better for mental health than physical activity in other environments? Social Sci. Med. 91:130-4.

- Nowak, D.J., D. E. Crane, and J. C. Stevens (2006). Air pollution removal by urban trees and shrubs in the United States. Urban For. Urban Gree. 4: 115–123.
- Paoletti, E., T. Bardelli, G. Giovannini, and L. Pecchioli (2011). Air quality impact of an urban park over time. Procedia Environ. Sci. 2011(4): 10-16.
- Parr, H. (2007). Mental health, nature work and social inclusion. Environ. Plan. D, 25(3): 537-561.
- Relf, P. D. (2008). Renewing the Relationship between People and Plants in the 21st Century. Proc. VIIIth Int. People-Plant Symp. Acta Hort. 790:45-52.
- Sadeghian, M. M., and Z. Vardanyan (2013). The Benefits of Urban Parks, a Review of Urban Research. J Nov. Appl Sci., 2 (8): 231-237, 2013.
- Salazar, S.D., and K. P. Rausell (2008). Adoublehurdlelofurbangreen areas valuation: dealing with zero responses. Landscape urban plan. 84,241-251.
- Shahzad, L., A. Mansoor and R. Nasir (2016). Identifying and Mapping the Elements of Botanic Garden in a Public Park: Case Study of Racecourse Park, Lahore. Bio-Pak 62 (1): 111-121.
- Stewart, W.P., D. Liebert, and K. W. Larkin (2004). Community identities as visions for landscape change. Landscape Urban Plan. 69(2-3): 315– 334.
- Stigsdotter, U.K., O. Ekholm, J. Schipperijn, M. Toftager, F.J. Kamper, and T. B. Randrup, (2010). Health promoting outdoor environments - Associations between green space, and health,

health-related quality of life and stress based on a Danish national representative survey. Scand. J. Public Healt. 38: 411-417.

- Strigsdotter, U.A. (2005). Urban green spaces: Promoting health through city planning, Inspiring Global Environmental Standards and Ethical Practices. TNAEP- 30th Annual Conference, Sweden.
- Thompson, C. W. (2002). Urban open space in the 21st century. Landscape Urban Plan., 60(2), 59–72.
- United Nations, (2014). Department of Economic and Social Affairs, Population Division (2014). World Urbanization Prospects: The 2014 Revision. New York, United Nations.
- Wang, H., O. He, X. Liu, Y. Zhuang, and S. Hong (2012). Global urbanization research from 1991 to 2009: A systematic research review. Landscape urban plan. 104(1-4): 299-309.
- Weber, D., and D. Anderson (2010). Contact with nature: recreation experience preferences in Australian parks. Ann. Leisure Res. 13: 46-69.
- Yang, J., J. McBride, J. Zhou, and Z. Sun (2005). The urban forest in Beijing and its role in air pollution reduction. Urban For. Urban Gree. 3: 65-78.
- Yang, J., J. Sun, Q. Ge, and X. Li, (2017). Assessing the impacts of urbanization-associated green space on urban land surface temperature: A case study of Dalian, China. Urban For. Urban Gree. 22, 1-10.
- Younis, A., M. Qasim, and A. Riaz (2008). Case study: Impact of a well-planned landscape in delivering quality of life to city dwellers. Acta Hort. 775:147-154.