

Adolescent use of urban parks and their social environment consequences

Zohreh Mahdiar, Melasutra bt Md Dali

Department of Urban and Regional Planning, Faculty of Built Environment, University of Malaya, 50603 Kuala Lumpur, Malaysia

Correspondence: Melasutra Md Dali, (Email: melasutr@um.edu.my)

Abstract

Parks increase their users' health and well-being because they offer settings suitable for physical activity, social interaction, enjoying nature, etc. Applying the socio-physical approach, "park use" behaviour is influenced by several environmental characteristics, including physical environment, social environment, and cultural environment. This study seeks to understand the influence of park social environment based on the perspectives of adolescent park users aged 15-18. A qualitative study (interviews) with 17 adolescents aged 15-18 (including male and female) shows that the social environment of an urban park plays an important role among adolescents. The research contributes to understanding how the social environment influence on park use and thus assists urban planners in measuring key targeted actions to improve the perception of social environment among adolescents to increase park use.

Key words: Adolescent, park use, socio-physical approach, social environment urban parks.

Introduction

Parks are valuable urban settings for physical activity, social interaction, contact with nature, and relaxation and can improve the health of park users (Potwarka et al., 2008; Payne et al., 2005). Parks can help develop the individual and social identities of adolescents (Lloyd et al., 2008). Parks are also an effective antidote to the passive lifestyle of most adolescents and the modern commercialization of most leisure facilities (Burgess et al., 1988). Therefore, increasing park use can improve adolescents' health and help resolve the issues related to an adolescent passive lifestyle, such as obesity, hostility and aggressiveness, increased impatience and depression, isolationism and escaping society, and increased shyness and lack of self-confidence in adolescents (Rey-López et al., 2008).

According to the socio-ecological model, the behavior 'use of urban parks' can be influenced by certain environmental factors (e.g. physical environment, social environment, cultural environment, policy environment) (Giles Corti, 2006; Raymore, 2002) (See Figure 1). Therefore, growing new research has focused on understanding which park characteristics relate most positively to greater park use (Bedimo-Rung et al., 2005; McCormack et al., 2010, Loukaitou-Sideris and Sideris, 2010; Cohen et al., 2010; Cohen et al., 2009). However, limited research has been conducted on adolescent use of parks, especially among those aged 15-18 years. Most of the research done focused on children or the elderly and the research on adolescents remains limited (Lloyd et al., 2008; Ries et al., 2008). Examining this issue specifically among adolescents is significant because these group of people may experience

and perceive a park environment differently due to their different needs and preferences (Ries et al., 2008).

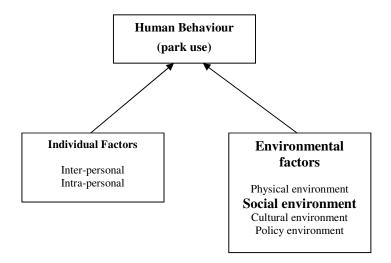


Figure 1: Socio-ecological framework for understanding human behaviour (Source: Giles Corti, 2006; Raymore, 2002)

The social environment of parks is a key contributor to park use (Whyte, 2000, McCormack et al., 2010). Sociable spaces, where people meet and have social interactions, are one of the key attributes of a successful public space. Sociability is a critical feature in urban public space success including in which public space provide gathering space that invites or allows social interaction among friends or strangers. These social environments foster a sense of belonging to a larger whole, for example, to a community, even if that community is only a momentary experience (Talen, 2000; Whyte, 1980).

Several researchers stressed the importance of social interaction on people's use of parks (Mäkinen and Tyrväinen, 2008, Ferré et al., 2006, Ries et al., 2008). Socializing in supportive and secure social environments is indeed significant, especially for girls and women (Evenson et al., 2002; Krenichyn, 2006; Lloyd et al., 2008; Veitch et al., 2007). The few studies that focused on adolescents' use of parks demonstrate that social interaction, for example, socializing and playing with friends in parks increases park use (Lloyd et al., 2008; Gearin and Kahle, 2006; Veitch et al., 2007; Ries et al., 2008). These studies showed that factors related to social environment including companionship especially the companionship and presence of friends (Atmodiwirjo, 2008; Ries et al., 2009; Scott and Jackson, 1996; Van Herzele and Wiedemann, 2003; Veitch et al., 2007; Ries et al., 2008), family friendly parks which welcome families (Evenson et al., 2002), and presence of other people (Atmodiwirjo, 2008; Jansson and Persson, 2010; Van Herzele and Wiedemann, 2003) are associated with increased park use among adolescents. On the other hand, the presence of undesirable people and teenagers can also play the role of a deterrent for park use (Adams et al., 2008; Dunnett et al., 2002; Veitch et al., 2006).

However, studies on the influence of park social environment on park use, especially among adolescents, is still limited. Moreover, it is believed that there are significant differences in different cultures and contexts on the impact of environmental factors on encouraging people to use parks. (Albert et al., 2011; Shores and West, 2010; Floyd et al., 2009; Jansson and Persson, 2010). In that respect, it is necessary to explore the influence of the social environment from the perspective of the potential park users in study context. More

qualitative research is needed to understand adolescents' perceptions on the meaning of a social environment and its influence on park use. This study thus explores how the social environment of a park can influence adolescent use of urban park in Shiraz, Iran.

Methodology

Study area

Shiraz is one of the biggest cities in Iran and is the capital of Fars Province. It is located in the southwest area of Iran (See Figure 2). Shiraz is about 340 km², and its average elevation is 1500m above sea level. Shiraz has a moderate climate with four regular seasons. The daily temperature varies between 40°C in the summer and -10°C in the winter.

The population of Shiraz is 1.3 million based on latest census of 2006. From this population 19.6% are adolescents aged 10-19, and 11.5% are adolescents aged 15-18. Of the adolescent population 51.5 % are male and 48.5% are female (Shiraz Municipality, 2010). Shiraz was once known as the "city of gardens". Green space per capita for the Shiraz people should be 14.55 m², but it is only 5 m² currently. Shiraz has 108 neighbourhood parks, 27 local parks, 35 district parks, and 15 city parks. The area of parks per capita in Shiraz is 1.58 m², but it should be 5 m² (Shiraz Municipality, 2010).



Figure 2. The location of Shiraz, Iran.

Study approach

Semi-structured interviews with seventeen (17) teenagers were conducted at 4 selected high schools over a 3- week period in October, 2012. These teenagers were chosen from both males/females aged 15 to 18. They were selected purposely at four (4) randomly selected high schools in four different socio-economic status areas in "Shiraz". Shiraz map was divided to 4 parts and each high school was selected randomly from each part. Respondents had to have visited the urban parks once or more than once in a six months period before the survey interview.

The researchers decided to conduct the interviews until the saturation level was reached, i.e. where more interviews did not add further to the knowledge that was collected from the completed interviews or provided no further insights. This resulted in a total of seventeen (17) respondents (Saunders et al., 2009). These respondents were chosen based on convenient sampling of 2 male high schools and 2 female high schools. There was almost an equal number of young men (8) and young women (9). The respondents were also fairly evenly distributed across the four grades. The interviews were conducted in a private room at each high school. The length was 20-35 minutes for each respondent. Interviews were tape-recorded with the permission of the respondents and then transcribed verbatim. All participants were identified using codes to protect their anonymity. The semi-structured interview was based on two main research questions:

- 1. If adolescents find park's social environment influential on their park use. And Why? And,
 - 2. How adolescents perceive a park with good/bad social environment.

Further questions were added based on respondents' explanations and experiments during the interview. These open-ended questions contributed to revelation of adolescents' potential different perception of social environment. Meanwhile, concluded influential parameters (social environment) on park use based on literature review contributed for further questions.

The researchers used qualitative analytic techniques, including coding and thematic development (Babbie, 2007; Neuman, 2004). The coding process was conducted manually in which the emphasis was placed revealing the multiple perspectives of the participants and interpreting their narratives in the context of their particular social worlds. Although these adolescents were selected from different age groups and areas of the city, the influence of age and social-economic status was not the aim of this study.

Participant validation was conducted, and the interpretations were presented to four respondents for their feedback on the accuracy of findings and their validation of the interpretation and explanations that were developed (Hennink et al., 2010).

Findings and discussions

Findings of this study indicated that adolescents find social environment of park important for park use. Even, for some respondents, the social environment of a park was more important than its physical environment for attracting them to use a park.

"The social environment of a park is more important than its beauty. Beautiful landscape is for adults rather than teenagers. We pay more attention to people rather than the landscape." (Female 2, Age 18)

"When we go to a park with our friends, the (physical) environment of the park is not that important; the main thing is being together." (Male 6, Age 16)

This finding was in line with previous studies on adolescents that argued the social environment of a park is a major determinant of park use (Veitch et al., 2007; Mäkinen and Tyrväinen, 2008; Ferré et al., 2006; Ries et al., 2008). It will be discussed later why adolescents valued social environment and how they perceived desirable social environment for park use. Based on thematic analysis, five themes were suggested of influence on social environment of park among adolescents and therefore on park use:

Presence of others

Findings of this study showed that the presence of others influence adolescents' perception of park. They explained how the presence of some people (we name them desirable users) increase their use while some others (we name them as undesirable user) limit their use of parks.

Desirable users

Most of the male respondents expressed a strong desire for the presence and accompaniment of their friends when going to a park. If adolescents know that their friends will be at the park, or if they can go to a park with their friends, then they will be much more likely to go there. It appeared that most male adolescents use parks for socializing and catching up with friends. Parks that do offer them this opportunity were favoured by them (See Figure 3).

"The first factor that makes me to go to a particular park is my friends. We can gather and talk about our problems to soothe ourselves, for example, about the problems we have with our parents. There we sympathize with each other and sometime offer solutions." (Male 3, Age 17)

"I like a park that I can go to along with my friends, where we can sit without being disturbed. As long as no one bothers us, that's fine." (Male 5, Age 16)



Figure 3. Adolescents use parks for socializing and catching up with friends

Female adolescents also preferred spending their time with their friends in park, but most of them were dependent on family to go to the park because of safety reasons and obedient characteristics of girls compared to boys. They complained this issue several times. For solving this problem, some of the adolescents' parents were planning to go to parks together or at least one adult were accompanying them, so that their children could be together.

"Adolescents in other countries go to parks without their parents, but in Iran I have never been to a park without my family. At this age, we like to spend our spare time with our friends, but we always have to go to parks with our parents." (Female 6, Age 16)

"Adolescents need to play and have fun with their peers, and when they go out with their parents, they can't play with them... I go to parks with my parents while I like to go there with my friends, but it is not possible because parks are not safe...It's easier for boys to go to parks with their friends because safety problems are less for them, and parents are less strict when it comes to boys and girls are more obedient." (Female 2, Age 18)

"My friend's parents and my parents plan, and we go to a park together. In this way, my friend and I can be together." (Female 8, Age 15)



Figure 4. Female adolescents were accompanied by adults for safety and cultural reasons

Previous studies also argued that companionship and presence of friends in a park environment is important for adolescents and it was associated with increased park use among them (Ries et al., 2009; Ries et al., 2008; Veitch et al., 2007). For example one study showed that adolescents chose one park over another only because their friends go to a particular park (Loukaitou-Sideris and Sideris, 2010). Through this type of companionship, young individuals experience a sense of belonging, acceptance, solidarity, and social affirmation simply by being together (Robertson, 2000-2001). Therefore, parks play an important role in cementing social connections and relationships among young people (L'Aoustet and Griffet, 2004). The presence of friends also increases a sense of safety and familiarity with a place and improves the sense of social inclusion (Nairn et al., 2003, Robertson, 2000-2001). Therefore, young people need spaces where they can gather to meet their peers, receive support from friends, and acquire new social skills (Brady, 2005; Lloyd et al., 2008)

Contrary to female adolescents in Iran, two studies on female adolescents didn't show any dependency on family to use parks (Shaw et al., 1995; Lloyd et al., 2008). Even, these researches showed that meeting people and 'hanging out' with friends were particularly important to young girls, and they spend a great deal of their time getting involved in

activities that emphasize connectedness and social relationships (Shaw et al., 1995). Moreover, for adolescent girls, group affiliation was mentioned as a strategy that enhances their access to public spaces (Brady, 2005; Lloyd et al., 2008).

As previously mentioned, companionship of family was influential on adolescent who were dependent on their family to use parks especially girls. However, the previous study by Ries et al. (2009) showed that companionship of family was not considered important by adolescents when going to parks.

Not only the presence of friends but also the presence of other people, especially adolescents of the same age group, made the park social environment more attractive and safer to adolescents. According to most of them, it was important to follow the crowd and hang out in places and parks occupied by more people, especially parks that attracted people of their same age.

"Parks that have a crowded environment are more attractive, a place where there are more families and more people." (Male 3, Age 17)

"I usually like going to parks where other people and teenagers go too. Seeing people of the same age as I makes me feel good." (Male 8, Age 15)

"I like the parks that are frequented by teenagers and young people. Parks where mostly old people go are usually quiet and boring. (Female 4, 17years)

"I like parks where people from all age groups go, teenagers as well as other age groups." (Male 6, Age 16)

"The presence of my friends, families, and even individuals that I know in the park makes it more attractive and better for me. (Male 5, Age 16)

'The presence of people, especially women, makes me feel safer.' (Female 7, Age 16)

These results are consistent with previous studies that showed the presence of other people and peers in a park environment important for encouraging adolescents to use parks (Jansson and Persson, 2010; Atmodiwirjo, 2008). The presence of people and the presence of peers as a contributor to park use suggest that adolescent needs will revolve around the settings for social interaction. Socializing in parks independently of adults increases park use among adolescents, even when those parks do not offer young people adequate facilities for recreation (Veitch et al., 2007; Ferré et al., 2006). They need to interact with same-sex peers and opposite-sex adolescents (Noack and Silbereisen, 1988) and their favourite places will offer a positive opportunity for such interaction. Therefore, the type seating (e.g., public seating, picnic tables) or areas where they sit and socialize make a site decisively attractive (Lloyd et al., 2008). The presence of other people also provides a sense of security for adolescents because it ensures an informal surveillance in the area (Jorgensen et al., 2013). However, according to some female adolescents they liked presence of other people as long as the environment is not that much crowded (Scott and Jackson, 1996).

Undesirable users

Presence of everyone doesn't have influence on attracting adolescents to use parks and even may play the role of deterrent. This result confirms the findings of previous studies that argued the presence of undesirable people and adolescents play the role of a deterrent for park use (Adams et al., 2008; Dunnett et al., 2002; Veitch et al., 2006). It seems that the presence of other people is positively effective, but only to the point that the presence does not threaten the safety and calmness found in a park environment (Veitch et al., 2006)

"The presence of other people is attractive to me. But which type of people they are and how they might behave in the park is important to me." (Female 7, Age 16)

For example, the presence of vagrants, addicts, homeless people, and even other groups of teenagers created a sense of insecurity in parks among some adolescents (Gearin and Kahle, 2006; Kruger and Chawla, 2002; Veitch et al., 2006; Wilbur et al., 2003).

In my opinion, the people in the park are the most important factor affecting the sense of security. Bad people in parks harass others, especially girls. The fear and apprehension that these cause prevent us from enjoying the park and its facilities. (Female 1, Age 18)

"There are a lot of addicts and vagrants in parks and parks have become a place for distribution and sale of drugs. These individuals have made parks unsafe and notorious." (Male 1, Age 18)

In some parks, older teenagers bully younger ones, creating a sense of fear in them. Some respondents said that they found older adolescents threatening and did not visit parks often or alone due to the danger of bullying.

Sometimes teenagers that are older than us and roam in and around the park harass us and try to fight with us, which could hurt us... once I went to the park with my friends, and we were harassed by them; after that incident, we would not go there without my parents. (Male 7, Age 15)

However, some teenagers were not bothered by the presence of undesirable park users as long as there was an ethical police presence to control them.

Undesirable users are present in all parks, and one can't stop them from coming to parks, but that does not prevent me from going to parks... the main point is how much these people are allowed to do what they want to. (Male 3, Age 17)

Family friendly parks

Family friendly parks were preferred by adolescents in this study especially by Females. Family theme parks were more attractive to adolescents for different reasons. Firstly, they provide safer environment and they have a better reputation for safety. Secondly, for dependent adolescents, these safer parks offer more recreation opportunities for different members of the family and increase their chances of going to the park. Finally, for some, this type of environment gives them the opportunity to meet their friends.

"I like family theme parks more because I feel safer and can stay in the park longer; hence I have more fun." (Female 1, Age 18)

"My parent agrees to going to parks only if they are safe and appropriate. I like to go to parks with my friends, but my parents do not allow it. For this reason, we go to parks that are suitable for families so that my parents can go with us." (Female 4, Age 17)

"There are parks known as family parks where fewer vagrants go or at least create less trouble."(Female 3, Age 17)

Moreover, these parks give male adolescents more opportunity to meet female peers because female adolescents are dependent on their families to go to parks and their families often choose family theme parks. Although none of the male adolescents for cultural consideration mentioned themselves this point, they smiled and didn't ignore when they were asked if the presence of opposite sex make family theme park attractive for them. Despite the interest in attending a family park, sometimes the boys feel frustrated because they are being treated disrespectfully and being driven away by the police and other families.

"I prefer the parks where people of my age are present rather than the parks that have a family environment, because some families do not behave toward us respectfully. They behave like we are bothering them. Even the police stop us from entering these parks [family environment parks]." (Male 1, Age 18)

One study showed that family friendly parks which welcome families do contribute toward increasing overall park use (Evenson et al., 2002).

Respectful and inclusionary environment

Adolescents are drawn to parks where the respectful behaviour of other people and park staff and police make them feel comfortable. Sometimes park staff and even some people will treat adolescents in a bad way and sometimes even fight with them which makes them go to certain parks less often.

"In most of the parks, there is not enough space for the games we like, so when we play and the ball falls on the grass or hits the flowers, the gardeners or parks' staffs mistreat us." (Male 3, Age 17)

"We like to go to places and play where we can see people, and they can see us, not in secluded areas ... for this reason, sometimes the ball hits the people or their stuff, and they insult us".(Male 4, Age 17)

Adolescents are highly unwelcome in public spaces such as parks and suffer from exclusionary treatment by other members of society. They are predominantly perceived as a problem, often seen as loitering rather than simply meeting with friends (Travlou, 2003), They are often confronted as the primary culprits of disturbance (Travlou and Ward Thompson, 2007) and they often come into conflict with other groups (Lieberg, 1995).

Mostly boys face these kinds of misbehaviour, while girls will face such kinds of misconduct less often.

"Since we always have gone to parks with my family, people around us have not mistreated us... we don't do anything which might bother others, but boys who go to parks without their parents face this problem. Of course their own behavior can cause the problem." (Female 5, Age 16)

Moreover, the older male respondents also complained about the exclusionary environment of some parks which is done mostly by police. This exclusionary behaviour and criminalization of hanging around with their friends have made them unsatisfied, fearful and anxious in a way that they preferred the presence of police for safety issues to be invisible and intangible. The police presence decreases their sense of freedom. In their opinion, the presence of park guards or staff provides a greater sense of security than a police presence.

"On Thursdays and Fridays, police do not allow teenagers to enter Azadi Park without their parents. They say these days are for families only, and you can't enter the park." (Male 1, Age 18)

'I think police should not be everywhere, so that we feel free and comfortable... when there are a lot of police around, I have a bad feeling.' (Female 2, Age 18)

I believe that the guards can provide a sense of security better than police, because the guards, with their informal blue shirts, can have things under control while not creating a sense of fear in us... they are familiar with the park and we accept them better than police. (Male 1, Age 18)

Previous studies also argued that adolescents fear police surveillance and exclusionary rules, such as the criminalization of 'hanging around', move-on laws, curfews and police detainment that marginalize them in public spaces (Malone, 2002; Pain, 2003; Smith, 2013; Laughlin, 2008). Adolescents in one study primarily associated police with harassment, and false accusations (Laughlin, 2008).

Young people associate social inclusion with a range of spaces that provide a sense of safety and familiarity with other young people. It is people and their actions in conjunction with the features and functions of the space that make young people feel included and accepted (Nairn et al., 2003). Therefore, consideration to this point can influence adolescents use of parks.

Spontaneous social activities

The presence of certain groups of people can change the environment of a park with their exciting activities makes the park more attractive for other people, including adolescents.

"Occasionally in some parks, skaters gather and perform stunts which are very interesting." (Female 8, Age 15)

"The presence of skaters in Azadi Park encourages me to go there more often because I myself skate. I like their presence." (Male 5, Age 16)

"There is a group of college students who play music and sing which makes the environment more attractive and quite a lot of people gather to listen to their music." (Female 8, Age 15)

"In some parks the people themselves hold programs that make a park's environment more interesting. For example in Kholdebarin Park, there is a group of old men and women who gather at night and sing together, or a group of youngsters who play guitar make the park's environment more attractive and a lot of people gather around them." (Male 3, Age 17)

"Azadi Park is a gathering place for teenagers who do parkour. That's very interesting and I go to see them." (Male 1, Age 18)

Other studies also confirmed the importance of programs and activities in attracting adolescents to use parks (Dunnett et al., 2002; Loukaitou-Sideris and Sideris, 2010; Mäkinen and Tyrväinen, 2008; Perry et al., 2011). For example the previous study by (Ferré et al., 2006) also mentioned that preparing more empty spaces for creative activities has positively

impact on park use. Especially the activities that offer them social interactions (Shaw et al., 1995).

Morality of the environment

The moral environment of parks was also important for some adolescents (Bedimo-Rung et al., 2005, Veitch et al., 2006). For male adolescents, the unsuitable atmosphere for parks was mentioned several times as being an influential factor for the use of parks. They believed that parks are potential settings where adolescents can learn anti-social and immoral behaviour and that can influence their use of parks. For example, smoking hookah was perceived as immoral behaviour, as it is illegal to smoke hookah in parks. However, with lack of law enforcement, some people and increasingly more adolescents bring and smoke hookah in parks. This image also deters the use of these parks by some adolescents.

"Parks' environments are very unsafe and have a potential for distribution and use of drugs. They may not threaten the safety and security of adolescents, but they are appropriate settings to draw young people into immorality." (Male 1, Age 18)

"The behavior of people in a park is important. For example, smoking drugs and behavior that is contrary to the norms of the society create an inappropriate environment in parks." (Male 5, Age 16)

"Parks' bad environments make me go to parks less often. Most of the teenagers go to parks for smoking and harassing others, and they do not spend their time on appropriate recreation." (Male 2, Age 18)

In terms of the Islamic religion in Iran, some of the female adolescents were not interested in parks that had image of girls' and boys' hanging out together. They considered these parks have an immoral environment.

"The bad environment of a park [hanging out of girls and boys together] is a problem which makes me go to parks less often." (Female 5, Age 16)

Conclusion

This study concludes that the social environment of a park is a major determinant of park usage. The results also show different parameters including presence of other people especially friends, family friendly parks, respectful and inclusionary characteristic of the place, spontaneous social activities in park and morality of the environment influence on adolescents' perception of a park's social environment.

The results of this research contribute to the body of knowledge on the topic by addressing the following identified gaps in the literature: First, limited research has been undertaken on the impact of the social environment on park use in adolescents ages 15-18. Secondly, there has been limited use of a qualitative study to explore the perception of potential users (in this study, adolescents) regarding the influence of social environment on park use.

Future studies should examine the influence of these established parameters on park use using quantitative approach. This effort would contribute to the development of valuable measures by identifying which parameters would improve the perception of social environment among adolescents which increase their use of parks.

References

- Adams AK, Harvey H & Brown D (2008) Constructs of health and environment inform child obesity prevention in American Indian communities. *Obesity*, **16**, 311-317.
- Albert, G., Abo-Kalla, H & Baron M (2011) Transport and Environmental Variables and the Impact of Cultural Differences on Playground Use. *Journal of Urban Planning and Development-Asce*, **137**, 291-297.
- Atmodiwirjo P (2008) The Use of Urban Public Places in Jakarta for Adolescents Hanging Out. *Journal of Asian Architecture and Building Engineering*, **7**, 339-346.
- Babbie ER (2007) The Practice of Social Research, Cengage Learning.
- Bedimo-Rung AL, Mowen AJ & Cohen DA (2005) The significance of parks to physical activity and public health A conceptual model. *American Journal of Preventive Medicine*, **28**, 159-168.
- Brady M (2005) Creating safe spaces and building social assets for young women in the developing world: A new role for sports. *Women's Studies Quarterly*, **33**, 35-49.
- Burgess J, Harrison CM & Limb M (1988) People, parks and the urban green: a study of popular meanings and values for open spaces in the city. *Urban studies*, 25, 455.
- Cohen DA, Golinelli D, Williamson S, Sehgal A, Marsh T & MckeNZIE TL (2009) Effects of park improvements on park use and physical activity policy and programming implications. *American Journal of Preventive Medicine*, **37**, 475-480.
- Cohen DA, Marsh T, Williamson S, Derose KP, Martinez H, Setodji C & Mckenzie TL (2010) Parks and physical activity: Why are some parks used more than others? *Preventive Medicine*, 50, S9-S12.
- Dunnett N, Swanwick C & Wolley H (2002) *Improving Urban Park, Play Areas and Green Spaces*, Department for Transport, Local Government and the Regions.
- Evenson KR, Sarmiento, OL, Macon ML, Tawney KW & Ammerman AS (2002) Environmental, policy, and cultural factors related to physical activity among Latina immigrants. *Women & health*, **36**, 43-56.
- Ferré MB, Guitart AO & Ferret MP (2006) Children and playgrounds in Mediterranean cities. *Children's Geographies*, **4**, 173-183.
- Floyd MF, Taylor WC & Whitt-Glover M (2009) Measurement of Park and Recreation Environments That Support Physical Activity in Low-Income Communities of Color: Highlights of Challenges and Recommendations. *American Journal of Preventive Medicine*, 36, S156-S160.
- Gearin E & Kahle C (2006) Teen and adult perceptions of urban green space in Los Angeles. *Children, Youth and Environments*, **16**, 25-48.
- Giles Corti B (2006) People or places: What should be the target? *Journal of Science and Medicine in Sport*, 9, 357-366.
- Hennink M, Hutter I & Bailey A (2010) Qualitative research methods, Sage.
- Jansson M & Persson B (2010) Playground planning and management: An evaluation of standard-influenced provision through user needs. *Urban Forestry & Urban Greening*, **9**, 33-42.
- Jorgensen LJ, Ellis GD & Ruddell E (2013) Fear Perceptions in Public Parks Interactions of Environmental Concealment, the Presence of People Recreating, and Gender. *Environment and Behavior*, **45**, 803-820.
- Krenichyn K (2006) The only place to go and be in the city: women talk about exercise, being outdoors, and the meanings of a large urban park. *Health & Place*, **12**, 631-643.
- Kruger JS & Chawla L (2002) We know something someone doesn't know: children speak out on local conditions in Johannesburg. *Environment and Urbanization*, **14**, 85-96.
- L'aoustet O & GriffeT J (2004) Sharing Public Space Youth Experience and Socialization in Marseille's Borely Park. *Space and culture*, **7**, 173-187.
- Laughlin DCL (2008) Defining and Exploring Public Space: Young People" s Perspectives from Regent Park, Toronto. University of Waterloo.
- Lieberg M (1995) Teenagers and public space. Communication Research, 22, 720-744.
- Lloyd K, Burden J & Kiewa J (2008) Young girls and urban parks: Planning for transition through adolescence. *Journal of Park and Recreation Administration*, 26.

- Loukaitou-Sideris A & Sideris A (2010) What Brings Children to the Park? Analysis and Measurement of the Variables Affecting Children's Use of Parks. *Journal of the American Planning Association*, **76**, 89-107.
- Mäkinen K & Tyrväinen L (2008) Teenage experiences of public green spaces in suburban Helsinki. *Urban Forestry & Drban Greening*, **7**, 277-289.
- Malone K (2002) Street life: youth, culture and competing uses of public space. *Environment and Urbanization*, **14**, 157-168.
- Mccormack, GR, Rock M, Toohey AM & Hignell D (2010) Characteristics of urban parks associated with park use and physical activity: A review of qualitative research. *Health & Place*, **16**, 712-726.
- Nairn K, Panelli R & Mccormack J (2003) Destabilizing Dualisms Young People's Experiences of Rural and Urban Environments. *Childhood*, 10, 9-42.
- Neuman WL (2004) Basics of social research, Pearson.
- Noack P & Silbereisen RK (1988) Adolescent development and choice of leisure settings. *Children's Environments Quarterly*, 25-33.
- Pain, R. (2003) Youth, age and the representation of fear. Capital & class, 27, 151-171.
- Payne L, Orsega-Smith E, Roy M & Godbey G (2005) Local park use and personal health among older adults: an exploratory study. *Journal of Park and Recreation Administration*, **23**, 1-20.
- Perry CK, Saelens BE & Thompson B (2011) Rural Latino Youth Park Use: Characteristics, Park Amenities, and Physical Activity. *Journal of Community Health*, **36**, 389-397.
- Potwarka Lr, Kaczynski AT & Flack AL (2008) Places to play: association of park space and facilities with healthy weight status among children. *Journal of community health*, **33**, 344-350.
- Raymore LA (2002) Facilitators to leisure. Journal of Leisure Research.
- Rey-López JP, Vicente-Rodríguez G, Biosca M & Moreno LA (2008). Sedentary behaviour and obesity development in children and adolescents. *Nutrition, Metabolism and Cardiovascular Diseases*, **18**, 242-251.
- Ries AV, Gittelsohn J, Voorhees CC, Roche KM, Clifton KJ & Astone, NM 2008. The environment and urban adolescents' use of recreational facilities for physical activity: A qualitative study. *American Journal of Health Promotion*, **23**, 43-50.
- Ries AV, Voorhees CC, Roche KM, Gittelsohn J, Yan AF. & Astone NM (2009) A Quantitative Examination of Park Characteristics Related to Park Use and Physical Activity Among Urban Youth. *Journal of Adolescent Health*, **45**, S64-S70.
- Robertson S (2000) A warm, safe place: An argument for youth clubs. Youth & Policy, 71-77.
- Saunders MN, Saunders M, Lewis P & Thornhill A (2009) Research Methods For Business Students, 5/e, Pearson Education India.
- Scott D & Jackson EL 1996. Factors that limit and strategies that might encourage people's use of public parks. *Journal of Park and Recreation Administration*, 14.
- Shaw SM, Kleiber DA & Caldwell LL (1995). Leisure and identity formation in male and female adolescents: A preliminary examination. *Journal of leisure research*.
- Shiraz Municipality (2010) The annual statistics of Shiraz City, Shiraz.
- Shores KA & West ST (2010) Rural and urban park visits and park-based physical activity. *Preventive medicine*, **50**, S13-S17.
- Smith AM (2013) Youths' Access to Public Space: An Application of Bernard's Cycle of Juvenile Justice. *The Hilltop Review*, 6, 4.
- Talen E (2000) Measuring the public realm: A preliminary assessment of the link between public space and sense of community. *Journal of Architectural and Planning Research*, **17**, 344-360.
- Travlou P (2003) Teenagers and public space. *OPENspace: the research centre for inclusive access to outdoor environments. Edinburgh College of Art and Heriot-Watt University.*
- Travlou P & Ward Thompson C (2007) Mapping youth spaces in the public realm: identity, space and social exclusion. *Open space: people space*, 71-82.
- Van Herzele A & Wiedemann T (2003) A monitoring tool for the provision of accessible and attractive urban green spaces. *Landscape and urban planning*, **63**, 109-126.
- Veitch J, Bagley S, Ball K & Salmon J (2006) Where do children usually play? A qualitative study of parents' perceptions of influences on children's active free-play. *Health & Place*, 12, 383-393.

Veitch J, Salmon J & Ball K (2007) Children's perceptions of the use of public open spaces for active free-play. *Children's Geographies*, **5**, 409-422.

Whyte H (2000) How to turn a place around. Projects for Public Space Inc, 225-232.

Whyte WH (1980) The social life of small urban spaces.

Wilbur J, Chandler PJ, Dancy B & Lee H (2003) Correlates of physical activity in urban Midwestern African-American women. *American Journal of Preventive Medicine*, **25**, 45-52.

Endnotes:

Parkour: the activity or sport of moving rapidly through an area, typically in an urban environment, negotiating obstacles by running, jumping, and climbing