Child-Friendly Open Spaces: 
Comparative Analysis of Parks in Pune, India

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Abstract

The vision of a good urban city is to design spaces livable for everyone. Every individual deserves to enjoy each space within the city. In India, 39% of the total population are children below 18 years. Planning of a city from the vantage point of a toddler is the best way to start. A child friendly city will include child friendly parks, streets, roads, and other public spaces. Children need to have easy access to local places away from home, where they can meet, interact and play with their friends. Parks and open spaces provide opportunities for children to learn about nature, each other and the world they live in. Parks are important spaces where children can explore, be active, relax, socialize, play and learn, which would eventually contribute to their development. This research paper focuses on child-friendly parks and how does these spaces contribute in early childhood development which includes physical, mental and social development. Earlier literature studied about dedicated open spaces for children inside the parks. This research would aim to study the parks holistically and how to make the entire park child-friendly. The focused age group is 3 – 10 years. The methodology followed is live case study along with activity mapping and photographic documentation. The selected case studies are Bhimale Udhyan- Bibewadi, Shivarkar Garden- Wanowrie and Anusaya Sabda Lonkar Garden-Kondhwa. Each case study has been studied on the parameters like furniture, light, color, texture on the basis of safety, accessibility, anthropometry, inclusiveness, and playfulness. The research concludes that child friendly green spaces has positive impact on a child’s development. The inferences from the research would help in designing child-friendly cities in future which will support healthier, safer and more exciting urban neighborhoods for young children, for those who care for them, and for everyone.

Keywords

Child Friendly City, Public Spaces, Parks, Early Childhood Development

1. Introduction

1.1. Child-Friendly City

‘If you find children happy, then the city is healthy.’ (Penalosa and Ives 2004) The needs and perspectives of children are largely overlooked in urban development, in spite of children forming a significant percentage of population. A child-friendly city is a city, town or community committed to fulfilling child rights as formulated in the Convention on the Rights of the Child. It is a city or community where the voices, needs and rights of children are an integral part of public policies, plans and decisions. Thus, a child-friendly city is a city that is suitable for all. Every country in the world, regardless of their level of human development, are now involved in implementing the 2030 Agenda for Development. The Child Friendly City Initiative (CFCI) supports local governments in implementing the 2030 Agenda through
holistically addressing issues related to the health and well-being of children and families at the local level.

The concept of child-friendly spaces has been inspired by the idea of child-friendly cities. It refers to developing better and healthier conditions for children within urban areas by focusing on child-friendly green spaces within the built environment. Children need open spaces, in order to connect and interact with their natural environment and consequently develop their skills and natural abilities to their full potential. The focus of urban planning should thus be to provide, among others, green spaces designed particularly for children’s needs.

1.2. Child-Friendly Open Spaces

Public spaces like neighborhood parks and playgrounds are important elements of daily urban life for Infants, Toddlers and Caregivers (ITCs). While streets are primarily used for movement and for connecting, the open spaces of the neighborhoods are the destinations and used mainly for recreational purposes. Playing is a prime activity for small children. For the 0-5 age group particularly, playing is a way to have fun, to socialize but also to learn. A big portion of this valuable playing time happens in designed playgrounds, where the playing environment is designed specifically for playing. Small tot-lots, parks, squares or green areas, are all examples of designated play areas for children. If a city invests in better quality of play areas for children, it also invests in creating better citizens for tomorrow.
1.3. Early Childhood Development

Playgrounds provide vital opportunities for children to play. There is substantial research showing the clear link between play and brain development, motor-skills, and social abilities. All learning—motor, cognitive and social—is accelerated by the act of play. Playgrounds that promote different types of play are important for a child’s cognitive, emotional, physical, and social development. Research on brain development shows that the most crucial time for a child’s development is in the earlier years. Children run, jump and dance in a playground which aids their motor skills and helps in the physical development. The playground maximizes opportunities to interact with their peers and allows them to express ideas and feelings, and develop their social skills. The act of play by a child stimulates brain development and has a key role in building the foundation and capabilities of the brain. Different age groups have distinct impacts of the play.

1.3.1. Toddlers

When kids are around two years old, they move into the so-called “onlooker” phase, where they watch other kids play because doing so helps them learn how to relate to others. They will frequently ask questions about the children they are observing, but typically make no effort to join in the play. Another type of play at this stage is called “parallel play”. They will play alongside other kids but with no interaction. This course will provide a toddler with opportunities to role-play and begin to understand the idea behind the concept of “mine”. This is the time when parents will come to dread the word “again.” While it may be frustrating, repeating actions is essential for the kids because it’s helping them to learn and master a skill or task.

1.3.2. Younger Kids

Once the child is around the age of 3 or 4, they start to become more interested in other kids than in their toys. These children continue to engage in parallel play, and they also enter the stage known as “associative play”. During this stage, kids take what they learned from the previous stages of play and use it to engage with other children and practice playing. They start to learn how to share and develop basic problem-solving skills. There is no formal organization to this kind of play, although kids often have similar goals. Children want to play with the same toys, maybe even trade them back and forth. The other type of play we observe at this age is the beginning of “cooperative play”. Kids learn about cooperation and the give-and-take process during this time period. They are taking the first steps toward learning how to use moral reasoning to determine values.

1.3.3. Older Kids (Up to Age 10)

While the importance of free play in child development is clear for all kids including those above the age of 10, it’s critical during the early school years. Play is how kids learn to socialize. It improves their thinking skills and problem-solving abilities and helps them to develop many of the skills they will need in adult life. This process is especially important for older kids. One of the ways they frequently explore new roles, complex emotions and even new vocabulary is through imaginary play. As children grow up, their play becomes more complex and layered. They start to accept adult roles and think in abstract ways about play. This is the time when they will also begin to learn about games and their rules. Games like “Simon Says” help kids learn that there are sometimes rules everyone must follow. But it also helps them learn when it is okay to break away from rules that may not be fair to everyone.
2. Literature Review

Research done by Cilliers and Goosen on ‘Child friendly approaches in a city’ stated that the necessity for the urban green spaces with the focus of planning for children within a city are regrettably not recognized due to the extensive growth in population, urbanization, adding to exponential housing demands within town and cities. (E. J. Cilliers, 2016) Research by Blinkert and Weaver suggested that conventional playgrounds with limited, fixed facilities and equipment, lack scope for imaginative or creative play. Natural play areas on the other hand are more adaptable and have more scope for creativity. (Baldo Blinkert, 2015) A study by Finnish researchers showed that even a ten minutes visit to an urban park significantly improved stress indicators. (Liisa Tyrväinen, 2013) Parks and open spaces should have a diverse landscape and varied vegetation, natural groundcover, shading and natural play materials. An abundance of literature and authors confirm that safety and security issues are the major problems faced by the children. The concept of child-friendly spaces should aim to enhance the freedom of movement and accessibility to all public spaces safely. Safety refers to the physical design elements such as fencing, lighting and visibility. Perceived safety, on the other hand, refers to children feeling safe and comfortable within the space. Though all the studies have tried to find issues faced by the children in a city, there is a lack of specific design guidelines to follow while designing a particular child friendly space.

3. Methodology

The study of child friendly parks was conducted through live case studies of seven parks in Pune out of which three parks namely Bhimale Udhyan- Bibewadi, Shivarkar Garden- Wanowrie and Anusaya Sabda Lonkar Garden-Kondhwa were chosen for the detailed study. The process of case study included photographic documentation, activity mapping and case study parameters like furniture, light, color,
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texture on the basis of safety, accessibility, anthropometry, inclusiveness, and playfulness. The parks were visited in evening on weekends when there was maximum footfall. The parks were studied holistically to understand different zones inside a park namely dedicated play areas, partially child friendly areas, restricted areas and built structures. The partially child friendly area indicates spaces which have the potential to be more child friendly and where more design elements can be added to enhance the quality of space. Activity mapping of users inside the park were documented, to understand the concentration zone of each user type. The identified users were children of age 3-5 years, 5-8 years, caregivers and regular users.

4. Data Collection and Analysis

4.1. Case Study I: Bhimale Udhyan, Bibewadi

Bhimale Udhyan, located in Bibewadi in a residential neighborhood, was studied holistically to understand different zones inside the park. The dedicated play area is located in a corner, whereas the majority of the park is just the open ground. Children of age 3-5 years are restricted to the dedicated play areas along with their caregivers, since their safety is the top most priority. Benches are located around this dedicated play area; hence the caregivers are more concentrated in this zone. Children of age 5-8 years are scattered around the open ground and the pavilion. They were observed to play among their friends but they made sure they were within the view range of their caregivers. The park also had their regular users of varying age groups using the space.

From Image 4, we can see pebble gravels are used for the dedicated play area and the other areas are covered by soft grass. Use of pebble gravels for the play area has several benefits like it’s easy to maintain and it drains well after a storm. It has the capacity to absorb a fall. The material structure keeps it from becoming compacted, providing a more cushioned landing for falls and tumbles. The play equipments are located under a canopy of trees which provides natural shade and avoids overheating of the metal equipments from direct sunlight. Children feel more comfortable playing in a shaded space. In Image 5, we can see the central open area that is surrounded by jogging track, which is made up of colorful paver blocks. These colorful paver blocks and the animal statue acts as an attraction point and it
enhances the experience of the users. A pavilion is also provided in this park which acts as a pause point where the users can sit and relax under the shade.

4.2. Case Study II: Shivarkar Garden, Wanowrie

Shivarkar Garden, located in Wanowrie in a residential neighborhood, was studied holistically to understand different zones inside the park. The dedicated play area was located in a corner, whereas the majority of the park was just the open ground with mounds. Children of age 3-5 years are restricted to the dedicated play areas along with their caregivers, since their safety is the top most priority. In Image 8, we can observe that the edges of this dedicated play area are raised which is used as seating by the caregivers. Sand is used for the play area whereas the natural ground cover is maintained in the rest of the parts. Sand is a great sensory toy for the kids as they explore their sense of touch and play and discover the wonderful texture of the sand. There are several benefits of sand play which are development of fine motor skills, eye and hand coordination, promote creativity and sensory growth. Children of age 5-8 years are scattered around the open ground. They were observed to play among their friends but they made sure they were within the view range of their caregivers. The park also had their regular users of varying age groups using the space.

In the activity mapping, it was evident that there was unequal distribution of users in the park. The entrance area where the dedicated play area was located was crowded whereas the rear part of the garden was used by only few of the users. The location of the furniture played a role for this unequal distribution of the users in this park. This should be considered while designing a park, that the density of people should be evenly distributed throughout the park so that the entire park can be used by the users efficiently.
4.3. Case Study III: Anusaya Sabda Lonkar Garden, Kondhwa

Anusaya Sabda Lonkar Garden, located in Kondhwa in a residential neighborhood, was studied holistically to understand different zones inside the park. The dedicated play area is located in a corner, whereas the majority of the park is just the open ground which is restricted. This central lawn is partially child friendly as it has a big potential to be more child friendly but due to the maintenance of the lawn, no one is allowed to use this space. In Image 10, we can observe that the entire play area is lowered that the usual ground level and the raised part is the used as seating by the caregivers. Granular gravels are used for the dedicated play area. Use of granular gravels for the play area has several benefits like it’s easy to maintain and it drains well after a storm. It has the capacity to absorb a fall. The material structure keeps it from becoming compacted, providing a more cushioned landing for falls and tumbles. Children of age 3-5 years were restricted to the dedicated play areas along with their caregivers, since their safety is the top most priority. Children of age 5-8 years were scattered in the peripheral mounds. They were observed to play among their friends but they made sure they were within the view range of their caregivers. The park also had their regular users of varying age groups using the space.

An urban tactical intervention by TARU Leading Edge, was implemented at this garden, which included painting of seats and floor surfaces with numbers, characters, color games, and retrofitting of existing pergola infrastructure as sensory boxes, using hanging xylophones, rope art and wall art. This intervention aims to develop young children’s cognitive, emotional and social skills through introduction of visual, sound and sensory play. In this park, since the central area is restricted, the peripheral mounds are being used by the users. The drawback of this park is that the majority of the park is not accessible.

In Image 10, we can observe the dedicated play area.

Image 10: Dedicated play area

In Image 11, we can see the peripheral mounds.

Image 11: Peripheral mounds

In Image 12, we can observe the central restricted lawn and painted pathways.

Image 12: Central restricted lawn and painted pathways

In Image 13, we can see the seating area with acupressure pathway at its boundary.

Image 13: Seating area with acupressure pathway at its boundary

Source: Author

In Image 13, we can notice that acupressure pathway is being used around the seating area. The acupressure walkway- technically called a ‘reflexology walkway’ is a path designed to massage and stimulate acupressure points on the soles of the feet, which are connected to various energy peaks of the body. Walking on such paths will result in significant reduction in blood pressure and improvement in balance and physical performance.
5. Discussion

From the data collection and data analysis of the case studies, we can deduce that a park should entirely be child-friendly and thus should be designed accordingly. By providing dedicated play area at the corner of a park will not suffice the needs. To enhance the experience of the kids and to effectively impact on the childhood development, the entire park should be child friendly. The design of a park can have a direct impact on a caregiver’s perception of its safety and their willingness to use the space. If parents or caregivers know that their children are safe within the margins of a play area, they will relax more and be less stressed. Safety in parks needs to be considered in its overall layout, clear vision lines, clear signages and lighting system. Urban furniture in parks, if well-chosen and placed, can become playful elements for children and toddlers. For kids, colorful benches can become exciting elements to climb, crawl, and have different playful experience. Increased contact with nature has benefits that impact the child’s overall development. Similarly for caregivers, access to a green space will have a direct bearing on their mental health.

![Typical zoning of a playground and tot-lot](image)

**Figure 3.23: Model Playground**
- Size: 4500-6000 sqm
- Distance: 200-300m
- Density: 3-5 nos. every neighbourhood
- Guidelines/Standards: Existing standard is 110,000 sqm. The Dutch standard is min 300 sqm

**Figure 3.22: Model Tot-Lot**
- Size: 500-1250 sqm
- Distance: 300m
- Density: 8 to 15 nos. every neighbourhood; total 750sqm minimum
- Guidelines/Standards: Existing URPDP standard of 200 sqm, tot-lots for 5000 population

**Source:** Urban95 Design Guidelines
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**Description**
- Bhimale Udhyan, located in Bibewadi in a residential neighborhood, was studied holistically to understand different zones inside the park.
- Shivarkar Garden, located in Wanowrie in a residential neighborhood, was studied holistically to understand different zones inside the park.
- Anusaya Sabda Lonkar Garden, located in Kondhwa in a residential neighborhood, was studied holistically to understand different zones inside the park.

**Zones inside the park**

**Activity Mapping**
- **Kids:** 3-5 years
- **Kids:** 5-10 years
- **Caregivers**
- **Others**
6. Conclusions

From the data collection and data analysis of the case studies, we can conclude that a park should entirely be child-friendly and thus should be designed accordingly. The design of a park can have a direct impact on a caregiver’s perception of its safety and their willingness to use the space. If parents or caregivers know that their children are safe within the margins of a play area, they will relax more and be less stressed. Safety in parks needs to be considered in its overall layout, clear vision lines, clear signage, and lighting system. Urban furniture in public spaces, if well-chosen and placed, can become playful elements for toddlers and infants. For small children, simple, colorful benches can become exciting elements to climb, crawl, and have different playful experiences. Increased contact with nature has benefits that impact the child’s overall development. Similarly for caregivers, access to a green space will have a direct bearing on their mental health. A study by Finnish researchers showed that even a ten minutes visit to an urban park or woodland significantly improved stress indicators. Parks and open spaces should have a diverse landscape and varied vegetation, natural groundcover, shading and natural play materials.

This research helped in analyzing parks and their effects on the child development. Parks should be entirely child-friendly rather than just providing a dedicated play area at the corner. The findings of this research can be used as the design guidelines to create a safe, healthy and exciting park. This small step can be a great initiative towards a child-friendly city and eventually creating a child-friendly world.
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7. References


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