CHILD-CENTRIC CITIES:

Understanding the post covid-19 pandemic scenarios for child-centric cities & reimagining urban friction spaces for children in the cities

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Abstract

Cities are the most complex but dynamic environments where people encounter the phenomenon of life. A child views the city and is a part of it through an entirely different perspective. Children absorb the city's surroundings using motor and intellectual skills, and the interaction with the city helps the child's mind grow and integrate. The covid-19 pandemic has significantly impacted children, who have suddenly changed their lifestyles, how they interact with the environment, and most importantly, how it has affected their physical and mental well-being. Eventually, the schools switched to an online education system. During the initial days of lockdown, the children are allowed to interact and spend more time with their parents. With time, peer interaction and outdoor activities decreased, which increased exposure to and dependence on electronic gadgets. Now, the post covid-19 scenarios have sparked concerns about children interacting with urban playgrounds and green spaces more by tackling contradicting values, social disconnection, and humanized disintegration to enrich and develop growth in the new normal.

This paper focuses on the significant shift in children's experience interacting with the city, which has transitioned during and after the pandemic. It deciphers the consequences of covid-19 pandemic on humanizing aspects of child-centric cities by adopting an investigative approach to develop a framework to understand and analyze the impact on children. This will provide a helpful toolkit for

re-establishing and shaping a child-friendly environment and reimagining urban friction spaces that grab the child's attention and offers interaction with the city.

**Keywords*: child-centric cities, the impact of covid-19, interaction, urban friction*

Introduction

"Cities have the capability of providing something for everybody, only because, and only when, everybody creates them."(jacobs, 1961)

Cities reflect people, their aspirations, and desires over political, social, economic, and cultural factors and their attempt to accommodate all types of people regardless of age, sex, ethnicity, or religion. This unifies a city but neglects its youngest residents, who play a significant role in daily life and see the city from their own perspective.

The population of India in 2022 is estimated to be 1,417,170,000 with a growth rate of 1.15%. Despite the Covid-19 pandemic, the birth rate is 18.2 births/per 1000 population. The population of children from 0-14 years is 356,733,454, comprising 25.36% of the country's total population. *(United Nations, 2022)* The younger generation is India's future. Children and their interactions with the environment, the surrounding area, and the city level are disregarded while developing cities. Several new issues shed light on the accessibility of child-friendly environments, engagement, and liveability.

Children were less clinically affected than adults by the covid-19 pandemic. However, COVID-19 significantly impacts children's lives and changes how they engage with the city. Since digital tools provide a means to support the wealthier portions, the school closures caused by the pandemic widened the disparity. However,

underprivileged kids lag behind more. In addition to preventing ongoing education, COVID-19 also hindered children from learning from their daily interactions with urban environments. More youngsters are becoming introverted as a result of significant behavioral changes, including an inability or lack of need for social interaction. Since peer connection is essential for their development and because spending more time on digital displays is raising mental and physical illness, many toddlers and adolescents can suffer when they aren't exposed to social stimuli. Connecting to the outside world further develops a child's ability to make decisions and respond to stimuli. (After COVID-19, a future for the world's children? 2020)

However, the new everyday practices following the pandemic have made it difficult for people, particularly children, to engage in society. Depending on urbanism, parents develop strategies and habits to adopt and promote more external connections. (Living in the city). However, the contrast that the COVID-19 pandemic created has hindered both the quantitative and qualitative aspects of children's lives. As a result, popular play areas, playgrounds, and tot lots have abruptly disappeared from the neighborhood. Parents have begun to concern about their children's safety while neglecting the dangers of growth monitoring. They must be critically examined to enrich and enliven life within the cities.

The intention is to decipher how a framework can be generated that interprets the humanizing aspects of child-centric cities and, under the transition undergone by children in the COVID-19 pandemic and the post-pandemic experience, will create a toolkit that will help to re-establish and shape the void between the children and their interaction with the city, by generating a resultant of urban friction spaces.

Background

Children represent a segment of open space users who play outdoors, facilitating their skill development. Urban open spaces are more critical because they can positively affect the development of talent and creativity in children and develop their physical, social, emotional, and cognitive skills. (Goltz & Brown) (H, 2013).The brains of infants and young children stimulate the development of visual and motor skills. A single impression impacts the capacity to indulge and engage with the environment. Due to this, future learning and collaboration with others may be exceedingly challenging.

Factors affecting the growth of a child:

Children go through many developmental phases, including physical, cognitive, and socio emotional components.

Physical: It responds to growth and stimulation, quickening reaction time as children mature. It also controls motor abilities and body coordination.

Cognitive: Experiences and interactions with others and the environment help people grow and mature mentally. Language development and improved social skills are also a result.

Socio-emotional: Engagement in socializing activities

(freeman & Tranter, 2011)

How cities play an essential role in shaping children's lives:

Cities are viewed as the place where kids may play, explore, and interact. A child can develop their imagination by linking it to the city. Any adult's notion of a conventional fence operating as a barrier to separate two locations from one another. Conversely, children view the fence as a climbing, balancing engagement obstacle that also serves as a place to hide. The shift in view is clearly discernible

when children are given opportunities to imagine, express their thoughts, and explore the city's many levels areas.

Children consider cities as a medium for playing, exploring, and interacting. A child can enhance their imagination which associating with the city. Adults often design spaces without children in mind. Yet children constantly invade those spaces and use various elements of the environment to enhance their play. The most obvious example of a conflict is in adults' and children's understanding of the affordances of using trees. For adults, trees provide shade, food, privacy, or noise insulation. For children, trees can provide quiet and secluded places to play or opportunities for carving or for climbing and playing hide and seek. Considering an average fence acting as a boundary to separate two spaces from each other is a perception of any adult. Children see the fence as climbing, a balancing barrier of engagement, which can also be a space to hide. (freeman & Tranter, 2011) The change in the perception is seen as spaces in the city at various levels allowing a child to imagine and carve out their ideas and explore the rooms. Depending on usage and intensity, several city groups are targeted for children's spaces: areas in the neighbourhood, school, city center, and natural space levels. These areas are the most important ones since children interact most frequently on a daily basis and because what they encounter there might impact their minds.

Emerging Concerns- Changes in lifestyle adopted by children During the pandemic COVID-19 scenarios:

Many countries are cautiously endeavouring to return to the new everyday lifestyles while maintaining vital preventive measures. People are developing their methods of adoption, which has led to parents' growing concerns for a safe environment while also making their kids solely dependent on them. Since toddlers are more likely to investigate their surroundings and have greater freedom to move

independently and make modest decisions daily in challenging circumstances. However, with COVID-19, the scenarios take on a different look and have more adult-dependent mobility. Significant changes in activity and motor skill exploration and development exist because urban places no longer provide the same level of safety and instead turn into dead zones in neighbourhoods, public spaces, etc. While the city's architectural design is crucial, more than a decent physical environment is required. A city's suitability for children is also influenced by its socio-cultural structure, spatial layout, and character.

Framework for re-establishing and shaping child-friendly cities:

The framework directs the development of urban resilience that benefits children, youths, girls, and boys. To ensure children's well-being, child-centered organizations must promote and strengthen resilience-building cities in response to the problems above. Working in cities can be done using the core ideas of urban systems thinking, a strength-based strategy, and a right-based approach. The objective of this framework is to enable designers and other public and private stakeholders to concentrate on the overarching ideas that will aid in identifying possibilities and chances to foster the development and coordination of future initiatives.

Key guiding concepts that have influenced the development of this framework:

Urban systems thinking: understanding the impact the city's physical and social urban systems have on the well-being of children and youth.

Strength-based approach: recognizing and leveraging the resilience already shown by children offers ways of building their strength and contributing to the stability of the cities.

Rights-based approach: urban stakeholders must ensure child and human rights are enshrined in resilience-building efforts. (United Nations, 2016)

In addition, four design-level strategies can be used to provide intervention that creates urban friction places for kids and can guide future action.

Promote integration

Make safe place

Mobilize the community

Sustain life

This study aims to promote integration that involves children's participation and integrates by creating friction spaces around cities that encourage children to spend more time outdoors.

Case study: Creating urban friction spaces under tactical urbanism: A case of Sambhaji garden and Sonawane maternity hospital, Pune

Urban 95 is a challenge. Pune is a fine example of creating urban friction spaces in various settings, including public gardens, maternity homes, schools, and residential neighborhoods. They have attempted to analyze the possibilities and range in the public realm by usefulness and a child's requirements.
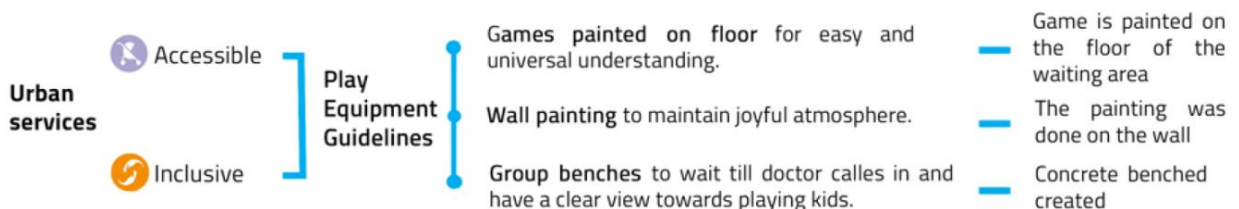
Considering the case of Sambhaji Garden, the intent was to generate friction spaces post-pandemic such that children are forced to interact with the environment, which will keep them engaged.Such play areas and green spaces will allow children to grow physically and emotionally, experience nature, and learn how to interact with their peers. With a focus on the physical, cognitive, and social development of babies, toddlers, and their caregivers, these

instances briefly explain a tactical intervention design that integrates sensory development aspects.

Design concept:

The aim was to make a safe and accessible environment for the movement of Infants and toddlers in the park and repurpose the open gym area within the park; through basic senses like touch, visuals, and feasible materials like tires and waste bottles. Also, I created wall art and painting to create a sustainable play space (by reusing material for setting and climbing activities and boundary walls).

Also, the city-level Sonawane hospital has similar concerns and hospital slums on both sides. The aim was to create an outdoor waiting cum playing space with a safe, vibrant, and playful environment.

Urban services

Accessible
Inclusive

Play Equipment Guidelines

Games painted on floor for easy and universal understanding.

Wall painting to maintain joyful atmosphere.

Group benches to wait till doctor calles in and have a clear view towards playing kids.

Game is painted on the floor of the waiting area

The painting was done on the wall

Concrete benched created

Reference of the ITCN Design Guidelines : https://bernardvanleer.org/app/uploads/2019/04/ITCN-Design-Guidelines_Revised.pdf

Interviews and surveys' conclusion:

From the interview conducted with the park caretaker, an understanding was developed that young children have intensivelyused it within the age group of 5-12 years and theircaregivers.

Graph: Post intervention activity mapping
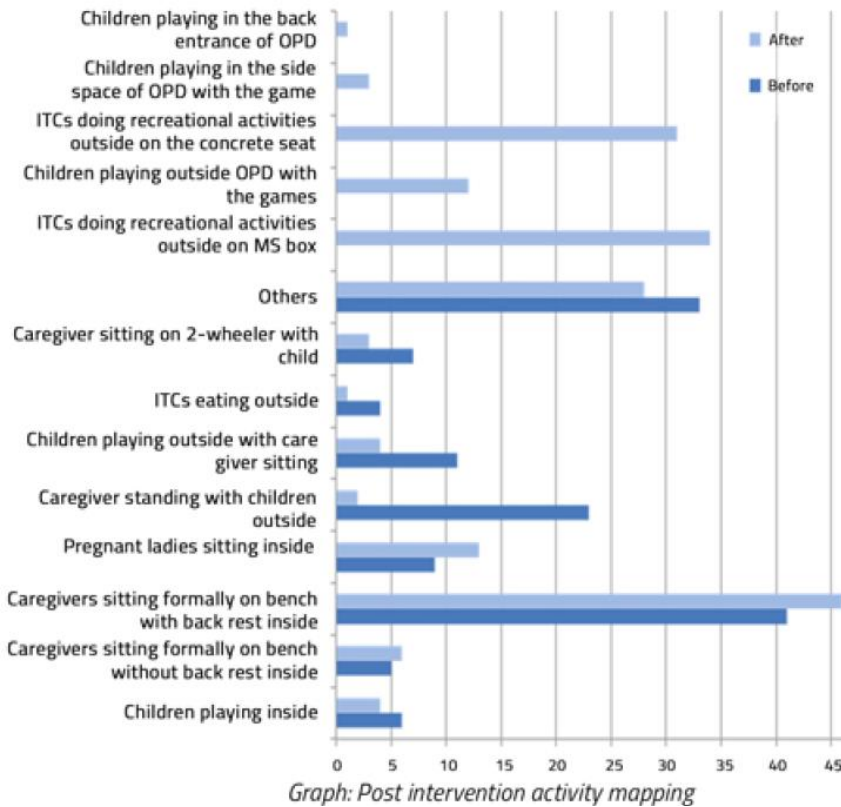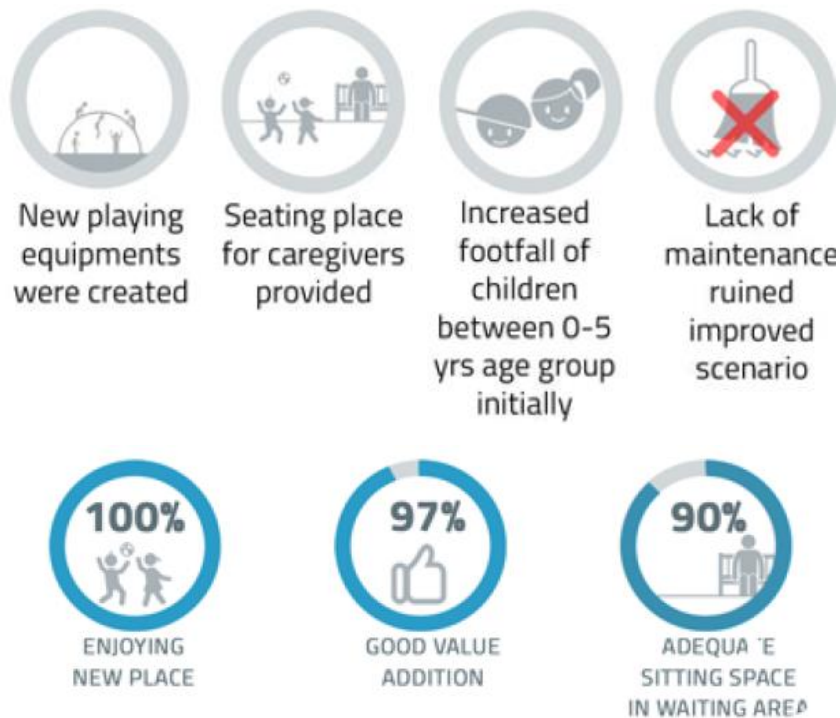
Outcomes:

For the hospital: playful and recreational activities of the children waiting near OPD have increased, and the activities happening before and after in the waiting area have improved.

Figure 1 shows stage wise progress of the Sonawane hospital intervention

Pre intervention	**During intervention**	**Post intervention**
Unkept & underutilized open gym space	Preparation of animated boundary wall	Tactical Intervention space after 5 weeks
Bare Walls	Wall Painting	Grafitti Wall after 8 weeks
	Seating & interactive sculpture for young children	Tactical Intervention space after 10 weeks

Key learnings:

New playing equipments were created

Seating place for caregivers provided

Increased footfall of children between 0-5 yrs age group initially

Lack of maintenance ruined improved scenario

100% ENJOYING NEW PLACE

97% GOOD VALUE ADDITION

90% ADEQUATE SITTING SPACE IN WAITING AREA

Graph: Post intervention - Impact on usage of play spaces

It has provided a familiar environment for young children to play actively and is comfortable for caregivers. Due to such interventions, design for behavioural change can be explored more.

(Urban 95 challenege)

Case study: "The Oasis Game" Santos, Sao Paulo, Brazil.

The second case of a city that emphasizes on children is Santos, a coastal city in Sao Paulo, where 100,000 people of the informal settlements of Nova Cintra struggle with issues including insecurity, poverty, hazardous living conditions, and a lack of infrastructure for families and kids.

The "oasis game" is a project that primarily focuses on gamified community intervention and involves 200–400 members of the community. It promotes community participation in the development of urban space specifically curated for young children, including daycare centres and playground areas, as well as some long-term strategies.The project used a seven-stage philosophy called "gaze, affection, dream, care, miracle, celebration, and re-evolution," which involved mobilising community members through meetings, workshops, and events to recognise and value the resources in the area, define shared aspirations, and collaborate to achieve them.

Outcome:

 The initiative has now ended and accomplished considerably more than was anticipated. A community soccer field has been secured by fencing, a disused shipping container has been repurposed into a toy library and play area, and a pedestrianized street has been made more attractive by having trash picked up, vibrant murals painted, and a vegetable garden planted. (Barnard Van Leer foundation , n.d.)

Key learnings:

The initiative led to the participation of community people as well as designed a personalised space for the community children which , enabled them to study, develop, conceive their ideas, and interact with the outdoors. Additionally, it improved their motor and cognitive abilities. The children in the settlements don't have a lot of

resources, yet this programme helped them to understand their neighbourhood and serves as proof that children can learn a lot about their environment by playing in a decent urban friction area.

Conclusion:

Accessibility and inclusivity nowadays is a part of fundamental rights in the city where children are the most important part of the society. children's provision rights are usually considered in terms of food, shelter, health and education. Provision of playful spaces must be added in the provision of rights. At each different places children thrice to adapt multiple learnings from the surrounding, design of friction spaces generates a sprawl of activities that indulges a child's mind in playing, growing and learning. After pandemic, the scenario of playgrounds, schools as well as neighbourhoods and city centres felt like blank dead spaces, activation of such spaces has resulted multiple benefits. although urban designers may not consider children as an intentional component but a good urban design can benefit children. The improvement in the quality of life in a tangible way must be the primary focus. Multiple small and large level interventions to increase the learning and playful experience with comfortable participation needs to occur in a supporting physical space with encouraging mentors. Facilitating children to access such spaces can be challenging for parents but can try to maximise the participation. New urban forms and initiative can be designed in consideration of which slowly will add to the mandatory layers of designing a city. While such spaces increase, multiple benefits are to the children as well as senior citizens and their indulgence shall be seen thriving in such spaces. A strong sense of belongingness can be generated which will contribute to the liveability of the city. The initiatives start from part to whole level. Designing or rethinking the neighbourhood play spaces and starting from small tactical

interventions slowly shall be developed from one level to another. Thus, a city level design is created which can be in more focused towards children and will slowly add up liveable and resilient cities.

References

After COVID-19, a future for the world's children? (2020, august 1). The Lancet, 396(10247). Retrieved from https://www.thelancet.com/journals/lanchi/article/PIIS0140-6736(20)31481-1/fulltext

Barnard Van Leer foundation . (n.d.). Urban 95 challenge The "Oasis Game" in Santos. Retrieved from Barnardvanleer.org: https://bernardvanleer.org/urban95-challenge/the-oasis-game-in-santos/

Barnard Van Leer foundation. (1965). The first of many smart and child friendly cities in India. Retrieved from Urban 95: https://bernardvanleer.org/cases/indias-first-smart-and-child-friendly-city/

freeman, c., & Tranter, p. (2011). Children and their urban environments changing world. London, UK: Routledge.

goltz, H., & Brown, T. (n.d.). Are children's psychological self-concepts predictive of their self-reported activity preferences and leisure participation? 177–186. doi:https://doi.org/10.1111/1440-1630.12101.

H, A. (2013). Landscape design for children and their environments in urban context. (M. Özyavuz, Ed.) Advances in landscape architecture, 291–324.

jacobs, j. (1961). The Death and Life of Great American Cities. New York: Random House.

United Nations. (2016). child- centered urban resillience framework.

United Nations. (2022). India Population statistics 2022. Department of Economic and Social affairs. United Nations.

Urban 95 challenege. (n.d.). tactical urbanism intervention. pune.