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From Mud to Modular: A Thematic Analysis of Children and Parental perceptions on 'Play-ability' of Modern Public spaces in Mumbai

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Abstract

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The contemporary urban landscape faces a "silent emergency" known as the Urban Play Crisis, a complex interplay of non-supportive environments, parental anxiety, and digital dependency. While middle childhood (ages 9–12) is a critical period for socio-emotional mastery, the physical "commons" required for this growth is rapidly shrinking. Urban density and a pervasive "surveillance culture" have transformed spontaneous play into a structured, adult-led luxury. This study frames this erosion as a failure of Design Justice, where top-down planning excludes children as primary users. Exploring the lived realities of children and caregivers in Mumbai, the research identifies a gap in understanding the psychological gatekeeping within dense urban fabrics. Thematic analysis reveals that safety anxieties and inadequate amenities often override developmental needs, leading to "engagement boredom" in older children. The authors advocate for participatory design that reclaims the city as a "real-world classroom," fostering autonomy, risk-taking, and social belonging for the next generation.

Keywords: Urban play crisis, Qualitative Thematic analysis, Parental gatekeeping, Participatory Design, Middle Childhood

1. Introduction

The contemporary urban landscape is witnessing a “silent emergency” termed the **Urban Play Crisis**. Shrinking and transforming public open spaces have significantly altered children’s play, making it less spontaneous, less independent, and increasingly structured. With rapid urbanisation, limited open spaces, and heightened safety concerns, play today differs sharply from previous generations. Earlier, play emerged naturally in streets, alleys, and informal neighbourhood spaces, where children engaged freely and learned essential life skills such as negotiation, conflict resolution, and social interaction. This was enabling by greater freedom to move around independently and learn through direct, real-life experiences. In contrast, contemporary urban conditions shaped by increased density and a pervasive culture of surveillance have transformed play into a more adult-led, scheduled, and restricted activity, shifting it from a spontaneous right to a controlled experience.

Is play - a child’s natural way of learning, growing, and belonging- now becoming a luxury that is increasingly less accessible and less affordable?

1.1 Contextual Background: Spatial Poverty and the Urban "Lock-In"

Mumbai presents a paradox of extreme urban density and acute environmental scarcity. According to the city’s Development Plan 2034, Mumbai offers a mere 1.2 m² square meters of open space per capita, nearly 30 times lower than global benchmarks set by cities like London and New York (MCGM, 2018). For the developing child, this is not merely a statistical deficit, but it actually represents a condition of "Spatial Poverty", where the built environment fails to provide the basic spatial affordances necessary for healthy physical, social, and cognitive development (Appleyard, 1981; Stephen, 2022). By encroaching on the commons, the current urban fabric effectively deprives the child of their 'Right to the City' and their fundamental claim to neighbourhood spaces (Santos et al., 2013). When a neighbourhood becomes un-navigable, it ceases to be a shared resource and instead becomes a barrier, alienating the youngest citizens from the very social fabric that is supposed to nurture their transition into adulthood. This spatial scarcity is exacerbated by a significant gap in the planning process. While the Maharashtra Regional and Town Planning Act-1966 mandates a hierarchy of spatial plans ranging from broad Regional Plans to granular Local Area Plans, the actual level of community engagement during the preparation of these lower-level plans is almost negligible (Spatial Planning Index (UDRI, 2024). This results in a clinical, top-down approach where the state acts as a "provider" of amenities without consulting the actual users (James Gibson, 2014). For children and their caregivers, this translates to a profound disconnect between official planning

maps and their everyday lived experiences. In this framework, public spaces are often designed as category-based provisions that merely meet numerical planning requirements for urban neighbourhoods, rather than functioning as responsive social hubs (Ginsburg, 2007; Lynch, 1960). This results in an urban "lock-in," where spaces are underutilised, poorly adapted to community needs, and limited in their ability to support meaningful social and recreational engagement. As built mass encroaches upon the commons and infrastructure prioritizes vehicular flow over pedestrian safety, the neighbourhood ceases to be a navigable playground. Consequently, independent mobility that once was a hallmark of childhood is replaced by a highly curated, "adult-led luxury." Play is forced into "modular" boxes through private clubs, expensive coaching academies, or static, gated parks. This shift from "mud" (spontaneous and free) to "modular" (structured and indoorized) effectively creates a developmental divide, where the right to play is contingent upon parental gatekeeping and economic capital rather than inclusive urban design.

1.2 Theoretical Framework: The Neighbourhood as a Learning Landscape

The study draws on Environmental Psychology, specific to Lynch (1960) assertion that the built environment acts as an "active teacher." Through its legibility and physical cues, the city provides a "mental map" that informs a child's sense of navigation, spatial orientation, and belonging. This is complemented by the lens of Social Interactionism, where neighbourhood spaces serve as vital arenas for rule negotiation and resilience. These "unstructured" commons allow children to engage in "peer-led social dynamics" and learn through a process of resolving conflicts, establishing group hierarchies, and navigating social boundaries without adult mediation (William Corsaro, 2015; Hart, 1979). Beyond peer interaction, these spaces offer critical opportunities for a child to encounter diverse social groups, fostering an early sense of community and social cohesion. Furthermore, these environments constitute Informal Learning Landscapes that stimulate environmental exploration and curiosity-based learning. Unlike the "modular" or structured classroom, the outdoors offers a unique pedagogy grounded in dynamic stimuli and healthy risk-taking (Brussoni et al., 2015; Nansel et al., 2015). This landscape of play can be categorized through four developmental pillars:

- Inquiry: Stimulating curiosity through interaction with natural elements and "loose parts".
- Competency: Building physical and social mastery over one's surroundings through trial and error (James Gibson, 2014; Kyttä, 2004).
- Exposure: Developing social intelligence by interacting with diverse people and unpredictable urban stimuli (Lyn Lofland, 1998; Hillman et al., 1990).
- Risk-taking: Developing cognitive resilience by managing 'acceptable risks,' which is essential for emotional maturity (Little & Wyver, 2008; Woolley, 2008).

Together, these theories suggest that "Spatial Poverty" in Mumbai is not merely a deficit of square footage, but a systematic erosion of these essential developmental affordances, leading to an "indoorization" of childhood that stifles the organic growth of the next generation. Figure 1 illustrates the parental gatekeeping barrier that mediates and restricts children's outdoor engagement.

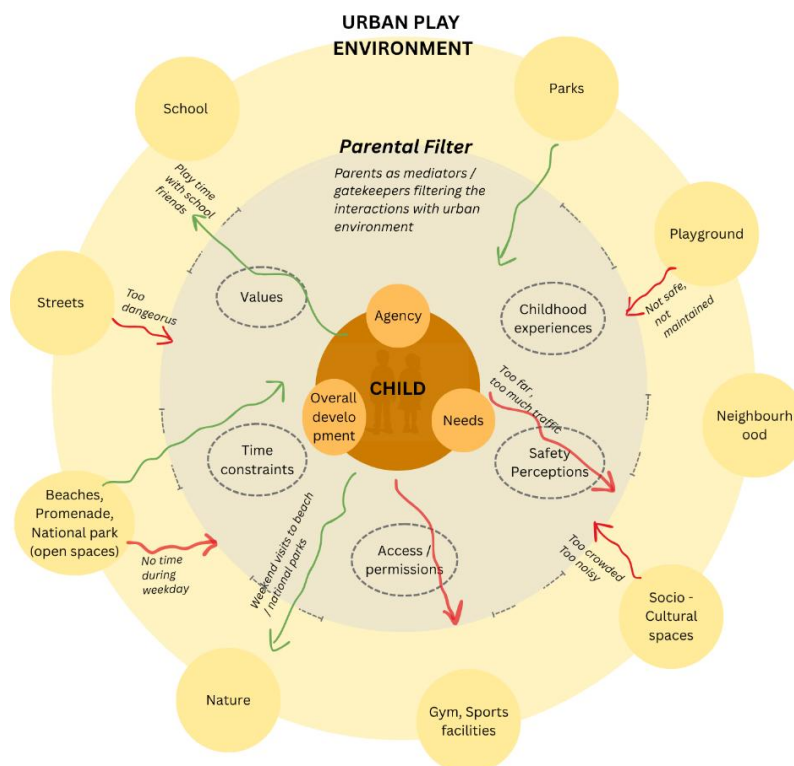


Figure 1. Parental gatekeeping barrier that mediates and restricts children's outdoor engagement.

1.3 Developmental shift in Middle Childhood Phase (9-12 years of age)

The middle childhood phase specifically ages 9 to 12, represents a significant developmental pivot, where, in early childhood, play is largely functional, focused on physical mastery of objects like slides or swings. However, as children enter pre-adolescence, their engagement with the environment it shifts toward social-interactive occupation (Pellegrini & Smith, 1998). Psychologically, this stage aligns with tension of "Industry vs. Inferiority," as children seek mastery over their surroundings to build self-worth, while cognitively entering concrete operational stage, which grants them the logical reasoning and spatial problem-solving skills necessary for independent urban navigation (Colin Ward, 1978). During this period, the peer group replaces the family as the primary site of socialization, transforming public spaces into "unstructured commons" for these social interactions. In these organic settings, children engage in the vital process of peer-led negotiation where they establish hierarchies, resolve conflicts, and create autonomous rules without adult mediation, thereby fostering social intelligence and a sense of community (William Corsaro, 2017; Rubin et al., 2006; Janet and Jason, 2015). Central to this developmental window is the transition toward Independent Mobility, defined as the freedom to navigate the local environment without adult supervision (Hillman et al., 1990). While younger children face heavy restrictions due to parental "Safety Anxiety," starting from age 10 children typically begin to receive permissions for autonomous travel for shorter distances, which serves as a vehicle for developing spatial literacy and environmental competence (Hillman et al., 1990; Kytä, 2004). By directly interacting with their neighborhood rather than relying on adult mediation, children actualize environmental affordances identifying spaces for secrecy, adventure, or gathering that hold high ecological validity for urban analysis (James Gibson, 2014). However, in high-density contexts like Mumbai, the erosion of independent mobility due to traffic and "Spatial Poverty" creates a profound developmental mismatch. Denying children the ability to transform neighborhoods into "personally meaningful territories" stifles their primary training ground for resilience, risk assessment, and civic belonging (Sheron, 2022).

1.4 Conceptualizing Public Space: Theory vs. Perceived Reality

In institutional discourse, public space is defined by legal ownership and accessibility. The UN-Habitat Global Public Space Toolkit (UN-Habitat, 2015) and The Charter of Public Space (2013) classify these as "publicly owned places accessible to all for free," spanning streets, open spaces, facilities, and markets. Urbanists like Gehl and Gemzoe (2001) and Carmona et al. (2004) emphasize that the quality of these "main beats of the city" depends on safety, equity, and their ability to facilitate social interaction (Wales et al., 2021). However, for the participants of this study, public space is conceptualized through experiential qualities rather than legal status. To the urban parent in Mumbai, a space is "public" if it provides the following:

- Non-Commodified Freedom: A resource where one can exist without the "profit motive" or restrictive surveillance.
- Spatial Vastness: A psychological escape characterized by "being under the open sky" and a sense of "vastness" that counters the drudgeries of high-density living.
- Social Observation: A site for "reading the city" through passive interaction and observing others.
- Atmospheric Safety: A "peace of mind" derived from spaces that are secure yet designed to allow for unhindered, autonomous movement.
- Connection with Nature: Participants view connection to natural elements as a primary function of publicness.

This contrast suggests that in a dense urban "Lock-In," public space is valued less as a functional utility and more as a psychological common that acts as a vital "breathing space" for social and emotional restoration.

1.5 Aim and Objectives

This research frames the decline of "play-ability" not merely as a planning oversight, but as a broader design flaw, where children are systematically excluded as primary stakeholders in top-down public space design, resulting in standardized and uninspiring environments. While existing literature underscores the developmental value of outdoor interaction, contemporary concerns around traffic safety and shrinking public open spaces have contributed to a marked reduction in spontaneous play. However, a critical gap remains in understanding caregivers as psychological gatekeepers, particularly in hyper-dense urban contexts like Mumbai. In these conditions, children's engagement with outdoor environments is rarely autonomous but is instead highly mediated, controlled, and structured through parental perceptions of safety and environmental affordances. Against this backdrop, the study aims to examine the layers of this mediation and the lived realities of children (ages 9–12) by exploring parental perceptions on outdoor play, children's engagement with fragmented neighbourhood spaces, and how both caregivers and children conceptualize public space and the "playability" of their surroundings. The Objectives of the present study include the following:

- To examine parental perceptions of outdoor play and neighbourhood "play-ability" in dense urban contexts like Mumbai.
- To explore parents' views on the importance, benefits, and developmental value of outdoor interactions for children.
- To understand how caregivers mediate, structure, and restrict children's (6–12 years) engagement with fragmented urban outdoor spaces.
- To investigate challenges of outdoor play in middle childhood (6–12 years), particularly notions of boredom, thrill, and age-appropriate engagement in urban environments.

2. Methodology

2.1 Research Design

This study adopts an Interpretive Paradigm using Qualitative, Inductive Thematic Analysis within an Interpretive Phenomenological Approach (IPA). This framework enables a deeper understanding of the meanings parents attach to safety, play, public spaces, and children's development, moving beyond surface-level descriptions of urban constraints. The analysis is primarily inductive, allowing themes to emerge organically from the data. The study follows a relativist ontological position, viewing reality as subjective and shaped by multiple parental perspectives (Dhar, 2021; John et al., 2015). Epistemologically, knowledge is understood as co-constructed through interaction between the researcher and participants, making the findings interpretive and collaborative in nature. The research is also value-bound, guided by a commitment to improving urban environments and children's outdoor engagement while remaining empathetic to parental concerns and generating actionable design insights.

2.2 Researcher Positionality

The study is informed by the researcher's dual identity as an Architect and Urban Designer and a mother of a 1.5-year-old child in Mumbai. Her professional expertise in participatory design for the public realm provides a technical lens on spatial quality, while her personal experience navigating Mumbai's dense fabric for her child's play offers an "insider" perspective. This positionality facilitated a deep rapport with participants and an empathetic co-construction of the meanings attached to urban "play-ability."

2.3 Participants

The study focused on primary caregivers (mothers and fathers) of children in middle childhood (ages 9–12). This developmental stage was purposely selected as it marks a critical transition toward independent mobility, the freedom to navigate the local environment without adult supervision (Hillman et al., 1990; Shaw et al., 2015; Lester and Russel, 2010). This spatial autonomy is not merely a mode of travel but a vital vehicle for peer-led social negotiation, allowing children to develop essential social, personal, and cognitive skills by interacting with their physical and social environments (Nansen et al., 2015; UDRI, 2025). Parents of this cohort are uniquely positioned to observe the friction between a child's growing need for autonomy and the restrictive "Lock-In" of the urban environment (Veitch et al., 2020).

2.3.1 Participant Profile:

- Sample Size: 12 primary caregivers (achieving data saturation).
- Demographics: Middle to upper-middle-income professionals (Banking, Academia, Business, Education).
- Gender Balance: Equal representation of mothers and fathers was maintained to capture diverse caregiving perspectives.
- Child Gender Representation: The study ensured an equal distribution of parents of both boys and girls. This was intentional to gain nuanced insights into the gendered concerns regarding public space, such as differing perceptions of safety, risk-taking, and the types of outdoor activities permitted for girl children versus boy children in high-density urban settings.
- Geographic Context: Residents of high-density planned neighbourhoods in Mumbai (Vile Parle, Malad, and Borivali). This provided a homogenous socio-economic and urban baseline, ensuring that barriers discussed were environmental, social and systemic rather than purely financial.

2.4 Data Collection

2.4.1 Design of Interview Protocol

The primary data collection tool was a semi-structured interview protocol designed to balance thematic consistency with the flexibility required for an Interpretive Phenomenological Approach (IPA). Rather than functioning as a rigid questionnaire, the protocol served as a thematic guide, allowing interviews to follow the natural flow of participants' narratives while using probing questions to explore deeper meanings. The protocol was refined through pilot interviews and researcher self-evaluation. Although it included 76 potential prompts, interviews remained conversational and participant-led, ensuring rich and personal insights grounded in parental perspectives. Figure 2 shows the various sections of the interview protocol.

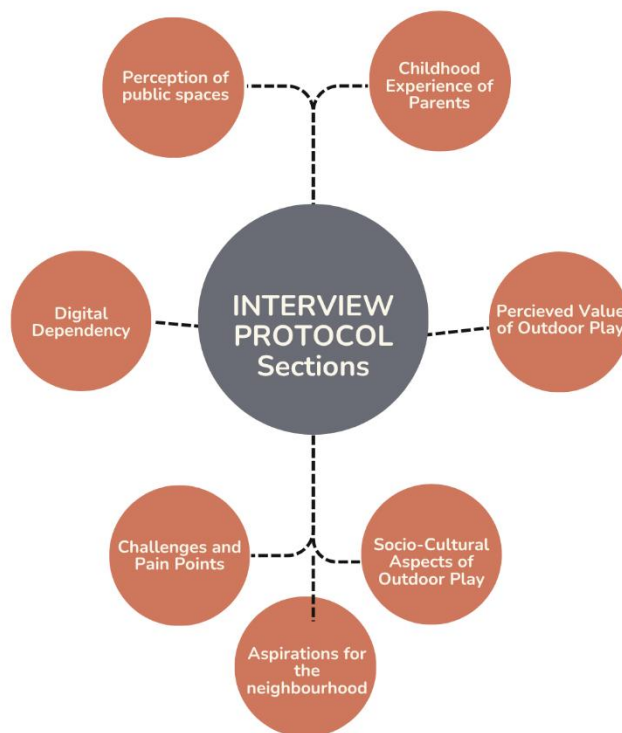


Figure 2. Various sections of the interview protocol.

2.5 Data Analysis: Interpretive Thematic Process

The study employed Interpretive Thematic Analysis, a method characterized by its flexibility in identifying, analyzing, and reporting patterns (themes) within qualitative data (Moore, 1986; Sandseter, 2011). This approach was selected for its alignment with the study's aim: to decode social and emotional narratives rooted in the lived experiences of urban parents. The analysis followed a three-stage systematic process:

2.5.1 Data Preparation and Familiarization

Interviews were transcribed verbatim to preserve the original context, linguistic nuances, and emotional tone. This included transcribing responses in both English and Hindi to maintain the "authentic voice" of the participants. The researcher engaged in "data immersion" through repeated readings of the transcripts, noting preliminary impressions and recurring patterns that transcended individual interviews.

2.5.2 Multi-Dimensional Coding and Categorization

The coding process moved beyond mere description to capture the latent meanings within the text. Evocative codes were generated and classified into five analytical categories to ensure a holistic interpretation:

- Descriptive: Capturing the physical attributes of the neighbourhood.
- Emotional: Noting feelings of anxiety, nostalgia, or frustration.
- In Vivo: Using the participants' exact phrasing (e.g., "Mumma, yeh bacho ka hai") to ground the analysis in their reality.
- Process: Identifying actions or shifts, such as the transition from spontaneous play to "weekendisation."
- Conceptual: Identifying underlying power structures or urban theories.

These focused codes were then clustered into Sub-Themes.

2.5.3 Theme Synthesis and Visual Mapping

To maintain rigor in the IPA process, a mental map was created for each interview to trace relationships between raw codes and emerging sub-themes. These maps were then compared through cross-case analysis to identify shared patterns and conflicts, leading to five overarching themes. To ensure trustworthiness, a back-track check was conducted to verify that each theme was directly supported by the original interview data, ensuring the findings accurately reflected parental perspectives.

3. Thematic Analysis

The interviews revealed recurring concerns related to poor physical environments, design flaws in public spaces, limited open spaces, increasing digital dependency, hectic schedules, safety anxieties, and the growing tendency of parents to gatekeep and structure children's outdoor engagements. These patterns formed the basis for the key themes identified in the study. Figure 3 below shows the four key themes identified and the subthemes encompassed within it. Parent quotes are labelled with the de-identified participant number.



Figure 3. Key Themes and Subthemes.

3.1 Theme 1: 'Safety Anxiety' as a Primary Barrier to free play

This theme highlights parental safety anxiety as the primary barrier to children's independent outdoor play. While parents recognized the developmental and social benefits of outdoor interactions, these were overshadowed by fears related to traffic congestion, reckless driving, poor walkability, kidnapping, and the declining quality of public spaces (Carver et al., 2008; Chetty et al., 2016; Dalton et al., 2017). Participants compared present-day environments with their own childhoods, recalling greater freedom, safer streets, fewer vehicles, and stronger community networks that enabled independent exploration from a young age. In contrast, contemporary parenting practices involve constant supervision and restricted mobility, limiting children's opportunities for free play, independence, and experiential growth even up to the age of twelve. The various subthemes associated with this theme include the changing nature of open spaces, Need for constant parental supervision, perceived environmental and social dangers, the loss of community networks, eventually having developmental impacts on children's physical, social, and emotional growth.

"We used to jump the compound wall and go to the Chawls Beyond and we used to even go out on the streets. We used to play this extreme form of hide and seek, where we used to we would hide almost anywhere in the whole neighbourhood," (P2).

"The thing is that today, that acceptable level of risk is not there. the risk was there, which was surmountable at my age. With the amount of cars and the kind of infrastructure we have, you can't just let you know, let the kids go." (P7)

"I am out of my compound and I have lost somewhere, then I can ask somebody and somebody will get me or that was the situation back then, but now that is not the case I feel. " (P3).

3.1.1 Changing Nature of Open Spaces

Parents expressed that neighborhood open spaces are limited, poorly designed, and inadequately maintained, offering little scope for creative or exploratory play. Poor cleanliness and deteriorating infrastructure further make these spaces feel unsafe and unwelcoming, increasing parental anxiety around outdoor play.

“I don't see a lot of kids playing outside today because they fear, because some of their parents are also overprotective, and you know, we don't want to leave the kids alone or not even for a minute, you know, out of sight, because I think the times are like that that you fear and there's a lot of protection that you want to give to them.” (P4)

3.1.2 Need for Constant Parental Supervision

Parents expressed that growing safety concerns within the neighborhood compel them to constantly supervise and accompany their children in most daily activities. This limits opportunities for independent and child-led play, restricting children's freedom and contributing to a more controlled and closely monitored upbringing.

“So you know, today it's like, you know, I'm always in a panic mood when he sets the foot outside the lane.” (P9).

“I take him to the market, I take him to stationary shop, I take him to station. I do take him to my workout classes as well. He does the workout there with me” (P8)

3.1.3 Perceived environmental and social dangers

Parent's safety anxiety is deeply rooted in tangible fears related to traffic, crime, uncivilized behaviour, and reckless driving. As a result, streets are perceived as highly unsafe, restricting neighborhood walkability and limiting children's opportunities for independent movement and outdoor play (Jacobs, 1961; Shaw et al., 2015).

“A good locality. Because there... people lived in chawls too, but they were very supportive.” (P4)

3.1.4 Loss of community network

Parents expressed that their fears are further intensified by the loss of close-knit community networks that once acted as a social “safety net” for children. They recalled neighborhoods functioning more cohesively, where familiar faces, stronger social ties, and collective care among neighbors fostered a greater sense of belonging, trust, and safety for children within the community.

“he is gone out of the building and has come out on the road, the person knew that he lives here and he brought him back, so that is kind of you know the connection which we had with people who are residing.”(P3)

“I am out of my compound and I have lost somewhere, then I can ask somebody and somebody will get me or that was the situation back then, but now that is not the case I feel.” (P3)

3.2 Theme 2: “Just a basic park!”

This theme explores the barriers reducing children's outdoor engagement and questions whether outdoor play has become a luxury today. Parents expressed dissatisfaction with public parks due to poor accessibility, limited availability, inadequate maintenance, and lack of age-appropriate design. While most parks cater to toddlers, they often fail to engage children above seven years, who quickly outgrow standardized play equipment. Participants also highlighted that rigid and repetitive park designs restrict creativity, flexibility, and imaginative play. The strong emphasis on natural elements and diverse activities reflects parents' preference for more engaging, nature-based, and age-responsive play environments for older children. The associated subthemes are: Physical barriers, Boredom, Schedule activities, social barriers, Not Self-sustaining Neighbourhoods, Screentime displacing sunshine in a child's life.

“ The good enough number of parks are not "good enough"” (P8)

“i just see 6 meters of space around the building and no kids.” (P4)

“Just a basic park” (P7)

3.2.1 Physical Barriers

This subtheme highlights the dissatisfaction expressed by parents regarding the physical condition of parks, including poor maintenance, broken equipment, and lack of cleanliness, which often makes these spaces unsafe, unwelcoming, and unusable for children.

“there were these seesaws which were like completely disbalanced. also the maintenance of the places. Like there are very good gardens around. Right. Right? Which the BMC is trying to kind of maintain. we had taken Ivan to a park, which is a BMC park, right? The slides were so worn out that it did not even allow the kids to slide. So they were so rough, right? And they had to like literally pull themselves down from the slide.” (P5)

3.2.2 Boredom

This subtheme highlights the rigid and standardized design of parks, which parents described as repetitive, basic, and lacking engaging activities for children beyond the toddler phase. Participants felt that these spaces fail to provide stimulating or challenging play opportunities for older children, leading to the underutilization of parks and contributing to boredom during middle childhood.

Parents also observed that emerging indoor play environments, such as mall play zones and entertainment arenas, are increasingly attracting children through highly stimulating and technology-driven activities.

“Public spaces upto a certain age like 5 were good .we can just give them a park and they will be entertained. But that's not the case beyond a certain age. They get bored, they want challenges in spaces otherwise they don't like to visit” (P5)

“At his age ..12 years old..he wants to experience the thrill of learning a new skill or doing something challenging” (P7)

3.2.3 Scheduled activities

Parents spoke about enrolling their children in various classes and sports coaching, resulting in highly scheduled daily routines with limited time for unstructured outdoor play. Parents viewed these organized activities as productive alternatives, often chosen to compensate for the lack of accessible and engaging open spaces within their neighborhoods.

“he had enrolled him for various classes, so he's typically does that. he's 10, of course he has his own preferences of doing things” (P5)

“there is no outdoor play as such is not there in their lives. we go to clubs or trainings. it was a big amount that we had to pay, we had to think, There was just no public space for my kids to go and learn something and do something” (P9)

3.2.4 Social barriers

Parents expressed that children are increasingly unmotivated to engage in outdoor activities, often displaying a lethargic attitude toward going outside. Participants attributed this to the lack of engaging and stimulating features in existing open spaces, which are perceived as boring and repetitive. Parents also expressed concerns that poorly maintained and basic parks often attract anti-social behaviour, making these environments feel unsafe and unwelcoming. Together, these factors further reduce children's interest and motivation to use outdoor play spaces.

“That is a big challenge.. He doesn't. Then he doesn't. He just doesn't go. Then we then, what we do, we step in, then we play board games with him. "he'll get into the mood. Otherwise, then he just doesn't go out of the house if you have to.” (P8)

“but I do not use any single of them because they are not very well maintained and the crowd which I see lingering in those parks” (P3)

3.2.5 Not Self Sustaining neighborhoods

This subtheme reflects parent's disappointment with the lack of quality open spaces near their homes, often requiring long travel for suitable play environments. The absence of accessible recreational spaces makes neighbourhoods less self-sustaining and turns outdoor play into a planned activity, contributing to the “weekendization” of play due to busy weekday schedules and time constraints.

“it should not be a luxury thing that I need to travel to find such placed. Its a basic necessity for every person who lives in that neighbourhood” (P8)

"Apart from your groceries.. Yeah, that is it. There's no recreation that happens." (P10)

3.2.6 Screen time displacing sunshine in a child's life

This subtheme highlights parents' concerns that increasing screen dependency is gradually replacing outdoor play, real-world learning, and meaningful social interaction. Parents observed that digital devices increasingly shape children's routines, peer relationships, and recreational habits, while also negatively affecting creativity, imagination, and independent thinking. They believed that essential life skills such as resilience, social interaction, and problem-solving are best developed through spontaneous outdoor experiences. Participants also expressed concerns about the physical and behavioural impacts of excessive screen exposure, including poor eyesight, sedentary lifestyles, irritability, reduced attention spans, and a growing disconnect from nature and outdoor environments.

“she had a project in school... 'make a picture using nature.' She just wasn't thinking... Whatever they get instantly, they use that. They don't use their brains now.” (P10)

“They put the math problem in ChatGPT... ..it gives the answer. So kids don't think. They don't want to think. They know where to get it. It's become very risky, actually” (P10)

3.3 Theme 3: Outdoor Play as a Developmental tool

This theme highlights outdoor engagement as a non-negotiable and essential component of childhood development. Despite barriers such as safety concerns, limited open spaces, and increasing screen dependency, parents strongly believe that outdoor play is crucial for children's holistic growth and personality development. Participants viewed outdoor play as a “real-world classroom” where children develop essential social, emotional, cognitive, and physical skills such as teamwork, resilience, problem-solving, emotional regulation, risk assessment, and social bonding through spontaneous and independent experiences that cannot be replicated indoors or through structured activities.

“So because she was sensitized to the markers and the area geography around our home, she could, you know, traverse the area safely and come back home. But that happens only when you go out.” (P6)

“That awareness about surrounding and understanding people comes only when they are out there.” (P6)

The various subthemes associated with this theme are: Learning beyond school, Social emotional learning, physical development, cognitive learning, environmental interactions, resilience and risk.

3.3.1 Learning Beyond School

This subtheme highlights outdoor interactions as a practical classroom where children develop essential life skills through firsthand experiences (Kytta, 2004). Parents believed outdoor engagement builds confidence, resilience, neighbourhood awareness, independence, decision-making, street smartness, leadership, and practical skills such as time and money management, which are difficult to learn through formal education alone.

“how to encounter with strangers or maybe you lost your way and you found it” (P2)

“Most important is bold. You become bold. You can take challenges. You don't feel afraid at least for small things, you don't feel afraid, ki yeh karna hai ki nahi karna hai.” (P8)

3.3.2 Social Emotional Learning

This sub-theme highlights how unstructured peer interaction outdoors fosters empathy, conflict resolution, and emotional intelligence. It helps a child build bonds outside of home, navigate group dynamics and start appreciating others point of view.

“Participating in any of the sports activities also teaches you a lot of value lessons of life.” (P9)

“it's very hard for today's kids to let go of things, even if a small thing happens, okay. emotionally, physically.” (P7)

“Mummy, I don't want, I'm not enjoying it, I don't. And he will just sit. So that property of gelling up is not developed if kids are home.” (P8)

“you're losing a game and then you get into a quarrel argument. You go through a lot of emotional turmoil.” (P5)

3.3.3 Physical Development

Beyond simple play, outdoor interaction is seen as essential for building fundamental motor skills, stamina, and immunity.

“Physical endurance, immunity because we used to go out in the sun, I mean this is not happening with these kids anymore,” (P5)

“Exposure to as much as soil, dirt, grass, sunlight, rain. I mean, basically exposure to all the natural elements, which the kids today are void of.” (P4)

3.3.4 Cognitive Learning

Parents value the outdoors for stimulating creativity, imagination, focus, and real-time problem-solving skills in a way that structured indoor environments cannot.

“Organising school trips over a period of time you learn leadership, like, you know, when you're playing also, you know, you tend to be a leader. So, yes, I think these are some of the life skills, which are quite handy now.” (P1)

3.3.5 Environmental Interactions

This emphasizes the unique role of the outdoors in teaching children to understand, respect, and adapt to the natural world around them. It values nature and promotes nature based learning for better growth and development of a child. It also emphasizes the importance of green time as against increasing screen time among children.

“those sounds of the waves, just sit by nature makes me feel calm” (P5)

“during our time, we were very lucky and we, very happy to spend a lot of time outside.” (P8)

3.3.6 Resilience and Risk

Parents identified outdoor risks such as falling, failing, or getting lost as important learning opportunities that help children assess danger, solve problems, and build resilience. Participants believed that children develop the ability to cope with unpredictable situations and recover from setbacks only through firsthand experiences and independent outdoor engagement.

“So and free play kind of helps that. It just allows you to allows the brain to grow that way and of look at risks, analyse them, see how you get over them, all of these things” (P9)

3.4 Theme 4: A Curated Journey to Play

This theme captures the tension between parents’ belief in the value of free outdoor play and the realities of unsafe neighbourhoods and busy lifestyles. As spontaneous play becomes difficult, parents increasingly rely on structured activities such as classes, sports coaching, and clubs to support children’s development. It also highlights the “weekendization” of outdoor play, where parents consciously curate experiences through chores, social interactions, festivals, and cultural activities to build life skills and confidence. At the same time, parents expressed a strong desire for safe, accessible, and engaging public spaces that could restore independent and spontaneous play in children’s everyday lives.

“Recreation is restricted in current schedule and needs to be planned for and scheduled. Does not happen organically.” (P9)

“took the club membership , it was a big amount that we had to pay, we had to think, there is just no public space for my kids to go and learn something and do something.”. (P9)

The various subthemes associated with this theme are: Hectic week schedule, Intentional outdoor learnings, awareness of neighbourhood, recreational choices, Curated socio - cultural experiences

3.4.1 Hectic Week Schedule

This subtheme highlights the primary strategy of replacing spontaneous free time with scheduled, adult-led activities such as paid coaching, sports classes, and club memberships. Parents viewed this as a way to ensure safer, more controlled outdoor exposure while still providing children with structured opportunities for physical activity and overall development.

“During the weekdays there is not much outdoor interaction that happens except traveling to school and back home.” (P1)

“And then we have put him for a skating classes and all that. So that that's basically how We. Otherwise, we just kind of play at home.” (P2)

“there's also the swimming coaching that I started recently. So three days of the week in the evening,” (P2)

3.4.2 Intentional Outdoor learning

This captures parent’s intentional efforts to provide unique experiential learning (e.g., through delegated chores) to install the practical life skills that the classroom and screens fail to teach. It also includes conscious efforts taken by parents to make their children part of their everyday visit to markets, shops etc for first hand experience. This is believed to help children learn about time and money management, understand social interactions, understand bargaining and quality checks and navigating geographies.

“managing money. Sometimes you take 20 rupees and you know, you buy something and how much to take back, how much to you know, give. Then also develop a sense of directions.” (P6)

3.4.3 Awareness of neighbourhood

This subtheme highlights parents’ efforts to build children’s street smartness and navigation skills through guided exposure to everyday environments. This includes involving children in errands, local tasks, and different modes of transport to develop confidence, independence, spatial awareness, and a sense of belonging to their neighbourhood.

“ A very simple thing that, you know, send your child to buy their own stationery, you know, send them to the nearby stationary store. Let them scout out, let them, you know, probably fail sometimes to come back home. Let them know those markers. So I think that's important.” (P6)

3.4.4 Recreational Choices

Parents deliberately curate experiences for their children that they feel would not occur organically within their neighbourhoods. Through planned weekend and holiday outings, they ensure access to age-appropriate natural and outdoor environments that provide meaningful experiential learning and compensate for the lack of such opportunities in everyday urban life.

“Today, recreation is also scheduled, we have to plan time to be free otherwise it is very hard to take out time for yourself and do something you enjoy” (P10)

“Exposure to as much as soil, dirt, grass, sunlight, rain. I mean, basically exposure to all the natural elements, which the kids today are void of.” (P4)

3.4.5 Curated socio - cultural experiences

This subtheme highlights parents’ intentional efforts to expose children to festivals and cultural events as a substitute for the informal social bonding once gained through neighbourhood free play. It also includes encouraging participation and cultural awareness through direct observation and engagement.

“There is a temple that my grandparent, my parents like to take him too” (P2)

“when there is Diwali or some big festival, we go to the nearby temples.” (P6)

“he loves going pandal to pandal during ganpati time and observe decorations” (P8)

4. Discussion: The Ecology of Barriers

The findings show that children’s outdoor play in dense urban contexts like Mumbai is shaped by an interplay of parental perceptions, urban design constraints, time pressures, and growing digital dependency. Rather than a simple loss of space, the “Urban Play Crisis” reflects a deeper restructuring of childhood, where outdoor engagement becomes increasingly controlled, scheduled, and replaced by structured or indoor activities. Parental safety anxiety is a key driver, with parents acting as gatekeepers of children’s mobility. Consistent with evidence on declining independent mobility (Hillman et al., 1990; Sharon Bessel, 2022), concerns around traffic and safety restrict free movement and shift children from spontaneous peer-led play to structured activities. While perceived as safer, these alternatives reduce opportunities for creativity, autonomy, and informal social learning (Ginsburg, 2007; Gray, 2011). Public space design further reinforces this decline, as rigid and age-inappropriate parks fail to engage children beyond early childhood, leading to boredom in middle childhood (6–12 years). This aligns with critiques of fixed playground systems that limit imaginative and risk-based play (Lester & Russell, 2010), contributing to the “indoorisation of childhood”. This shift is intensified by rising digital dependency, where screen-based activities increasingly replace outdoor engagement and alter social interaction patterns. Combined with spatial inequalities and limited neighbourhood infrastructure, play becomes a planned, weekend-based activity rather than an everyday experience. Despite these constraints, parents continue to view outdoor play as a “real-world classroom” for developing resilience, social, and cognitive skills (Ginsburg, 2007; Gray, 2011). However, this belief is increasingly realised through curated rather than spontaneous experiences. Overall, the decline of outdoor play is not merely spatial but socio-cultural, shaped by the interaction of safety anxieties, design limitations, digital lifestyles, and parental mediation. This highlights the need to reimagine neighbourhoods as inclusive, flexible, and age-responsive environments that restore opportunities for independent and spontaneous play.

4.1 Strengths and Limitations

The study’s strength lies in its rich qualitative insights from in-depth interviews with parents of children in the middle-childhood phase, revealing nuanced psychological and environmental barriers to outdoor play that quantitative methods may overlook. The inclusion of both mothers and fathers offered a broader perspective on caregiving concerns. However, the study is limited by its small and relatively homogeneous sample of 12 participants from planned neighbourhoods in Mumbai. While not widely generalizable, the findings remain transferable to other hyper-dense urban contexts in the Global South. The identified concerns may represent baseline challenges that are likely more severe in lower-income or informal settlements.

4.2 Recommendations for Future Research

Based on the findings, future scholarship should investigate the following areas:

- The Boredom Threshold: A deep dive into why children in middle childhood (9–12) disengage from standard public parks and the specific “thrill-seeking” affordances that keep them engaged.
- Participatory Methodology: Developing and testing frameworks and toolkits for involving children directly in the co-design of neighborhood “commons.”
- Spontaneous Urbanism: Examining how tactical urbanism and “micro-interventions” (e.g., reclaiming leftover spaces under flyovers) can bring back organic, free play in dense environments and make neighborhoods more childplayable.
- Socioeconomic Variables: A comparative study on the challenges faced by children from economically weaker sections to understand how “Spatial Poverty” differs across the social strata.

5. Conclusions

The study demonstrates that reduced spontaneous outdoor play among children in middle childhood is shaped by the combined influence of parental anxiety, unsupportive urban environments, and increasing digital dependency. As a result, essential developmental processes such as social negotiation, resilience, and creative problem-solving are increasingly being replaced by structured, adult-led activities. This shift reflects not only a lifestyle change but a deeper developmental concern, as current public spaces fail to meet the needs of children beyond early childhood. Addressing this requires moving beyond structured substitutes toward reimagining urban environments that support autonomy, risk-taking, and rich experiential learning. The way forward emphasizes a participatory design approach, shifting from designing for children to designing with them to ensure more responsive and inclusive public spaces. This can be strengthened through tactical interventions that reclaim underutilized or leftover urban spaces—such as areas under flyovers or along watercourse edges—through low-cost, adaptable prototypes for play. It also calls for the development of participatory toolkits and child-informed design frameworks to enable structured, meaningful, and effective engagement of children throughout the design phase.

A structured four-step framework is proposed: Audit (identify lost or underused play spaces), Participate (co-design with children and caregivers), Prototype (implement tactical interventions), and Scale (embed play as a core mandate in urban planning). Together, this approach positions play as a fundamental urban priority and ensures that cities evolve as responsive, child-friendly environments that support autonomy, creativity, and everyday outdoor engagement for the next generation.

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Conflicts of Interest

The author(s) report no conflicts of interest.

Data Generation and Availability Statement

The primary data for this study were generated through 12 semi-structured, one-to-one interviews with caregivers in Mumbai, conducted between August 2025 and November 2025.

Data Generation: All raw data were generated in the form of audio recordings and subsequent verbatim transcripts. Due to the interpretive nature of the study, the data includes personal narratives, sensitive reflections on parenting, and specific neighbourhood details.

Data Availability: The qualitative datasets (transcripts) generated and analysed during the current study are not publicly available to protect the privacy and maintain the promised anonymity of the participants. Excerpts of the data (de-identified quotes) are included within the manuscript to support the findings. Reasonable requests for access to anonymized thematic coding frameworks can be directed to the corresponding author, Jayashree Chandrasekaran, subject to ethical clearance and participant consent.

Institutional Review Board Statement

The study was approved by the Institutional Review Board (IRB) of Indian Institute of Bombay (IITB), Mumbai (Proposal No: IRB-2025-093_NS_IDC, 22 January 2026).

CRedit Author Statement

Conceptualisation: J.C., N.S.; Data curation: J.C.; Methodology: J.C.; Formal analysis: J.C.; Visualisation: J.C.; Investigation (data collection and interviewing): J.C.; Data curation: J.C.; Writing – original draft: J.C.; Writing – review & editing: N.S., J.C.; Project administration: J.C.; Validation: N.S. All authors have read and approved the final version of the manuscript.

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