

Children's Perceptions of Community Outdoor Spaces: A Thematic Analysis Based on Qualitative Evidence from Hefei, China

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ABSTRACT

This study explores how children aged 10–14 in Hefei, China, experience and interpret outdoor spaces in their neighbourhoods. Although child-friendly urban planning has received increasing attention, existing research on community outdoor spaces in China has largely focused on adult-centred perspectives, with limited attention given to children's own perceptions and experiences. Semi-structured interviews were conducted with 20 children and analysed using NVivo-assisted thematic analysis within a qualitative research framework. The findings show that children understand community outdoor spaces through a combination of safety, comfort, enjoyment, accessibility, contact with nature, and expectations for future improvement. Six interconnected themes were identified: safety, comfort, fun, accessibility, naturalness, and future expectations. These themes influence children's decisions about where to go, how long to stay, and whether a space feels inviting or restrictive. Overall, the results highlight how the design and management of community spaces shape children's outdoor experiences, providing empirical support for more child-centred and nature-oriented community planning.

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1. INTRODUCTION

As China's urbanization accelerates, the connection between humans and the natural world is growing increasingly distant (Ji et al., 2022; Yang et al., 2025). Recent data shows that about 60% of China's population lives in cities (Cheng & Duan, 2021; UNICEF, 2019). Projections indicate that between 2018 and 2030, over 190 million rural residents will migrate to urban areas will migrate to urban areas. The rapid expansion of cities has transformed natural environments such as forests, grasslands, and farmland into built-up areas (Li & Li, 2025; Liu et al., 2021; Yu et al., 2023). This significantly reduces opportunities for urban residents, especially children, to connect with nature (Wang, 2024). In an urban development model emphasizing motor vehicles and commercial activities (Rui & Othengrafen, 2023), children's outdoor activity spaces are continually diminishing (Guo et al., 2023; Su et al., 2023), and community public spaces are often repurposed for non-child-orientated functions (Garay Gutiérrez et al., 2022; Guo et al., 2023; Ji et al., 2023; Zhao et al., 2023).

Meanwhile, children's participation in outdoor activities has declined sharply (Loebach et al., 2021; Xing et al., 2024; Yin & Cheng, 2024), while their time spent indoors on electronic screens and in extracurricular activities has risen markedly (Brussoni et al., 2020; Xie et al., 2021).

As a crucial environment for children to interact with nature, participate in social activities (Locke et al., 2024), and explore in their daily lives, the absence of community outdoor spaces not only reduces children's ability to engage in independent activities and socialise (Zhou et al., 2022), but also potentially jeopardises their physical and mental health and overall well-being (Mueller et al., 2023; Ne'matullah et al., 2022). According to data from the 2022 National Depression Blue Book, approximately 95 million people in China are currently suffering from depression, with around 280,000 suicides each year, 40% of which are among those with depression. Among individuals diagnosed with depression, adolescents under 18 make up 30% of the total sample, as shown in Fig. 1. A notable finding is the higher prevalence of mental disorders among adolescents aged 10–14, which is the highest across all age groups, as illustrated in Figure 2. This trend indicates a clear shift towards earlier onset of mental disorders (Cybulski et al., 2021; McGorry & Mei, 2023; Potrebny et al., 2025).

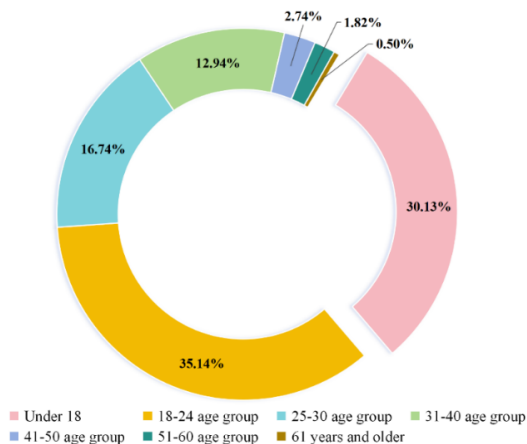


Fig. 1. Age of onset group for depression.

Source: 2022 Blue Book on national depression (2025)

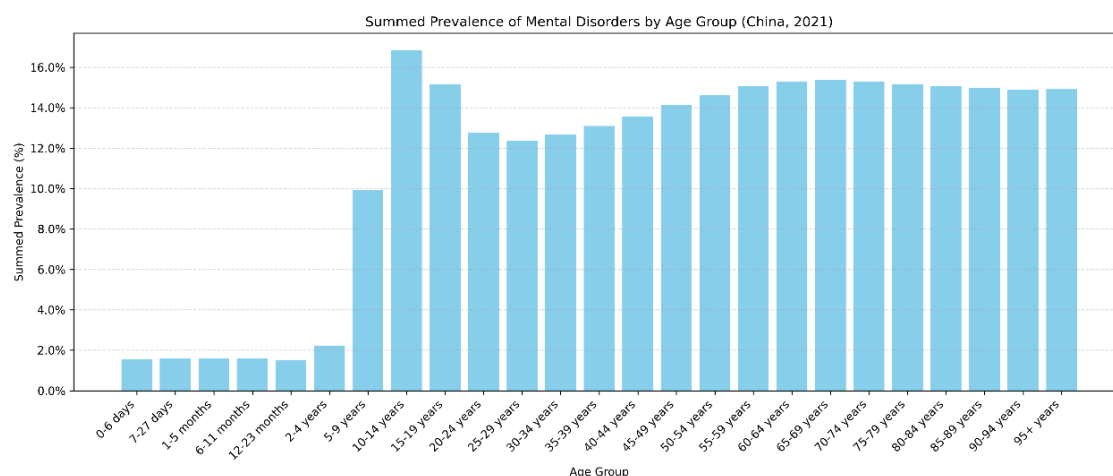


Fig. 2. Incidence rates of mental illness in China by age group.

Source: Institute for Health Metrics and Evaluation (<https://vizhub.healthdata.org/gbd-compare/#>)

As concerns about children's mental health attract increasing attention from society (Bitsko, 2022), nature-based interventions are becoming more recognised as a non-pharmacological approach to psychological treatment (Jiang et al., 2025; Tutova et al., 2025). Research indicates that natural environments support children's overall development across cognitive, social-emotional, and physical-motor domains, especially during their critical growth phases (Fathirezaie et al., 2021; Jeon & Jun, 2021). Sufficient exposure to nature helps foster positive psychological frameworks and social behaviour patterns (WHO, 2020). A systematic review suggests that contact with nature can effectively enhance children's well-being, alleviate stress, and reduce emotional distress (Li et al., 2021; Moll et al., 2022). Green spaces such as parks and gardens are strongly associated with higher levels of mental health, life satisfaction, and social connectedness among children (Hazlehurst et al., 2022; Kodali et al., 2023; Ryan et al., 2024). Furthermore, incorporating green infrastructure and readily accessible outdoor play areas is considered a vital strategy for improving children's mental health in urban planning (Russo & Andreucci, 2023; Vidal & Castro Seixas, 2022).

In recent years, many studies have supported the development of urban planning and community intervention policies to ensure children have access to fair, safe, and convenient natural play and social spaces (Adjei-Boadi et al., 2022; Bencekri & Lee, 2025; Zhang et al., 2023). Similar findings have also been reported in several rapidly developing Chinese Tier-2 cities. For example, research in Wuhan indicates that the quality and accessibility of community outdoor play spaces significantly influence children's opportunities for outdoor activities and social interaction (O'Connor, 2024). Studies conducted in Hangzhou further demonstrate that neighbourhood natural environments and green spaces play an important role in shaping children's daily outdoor activities and nature engagement (Katsavounidou & Sousa, 2024; Mansfield et al., 2021). In addition, research in Nanjing shows that the spatial characteristics and environmental quality of residential neighbourhoods strongly affect children's independent outdoor activities (Guo et al., 2023). These findings suggest that the challenges observed in Hefei may represent a broader pattern associated with rapid urbanisation in many Chinese cities rather than a phenomenon unique to a single city (Chu et al., 2025; Marcus & Sarkissian, 2023).

At the same time, some scholars have emphasized that rebuilding children's connection to nature should begin with their own experiences (O'Connor, 2024), by listening to their voices to better understand their lived experiences and perceptions of space (Katsavounidou & Sousa, 2024; Mansfield et al., 2021).

However, many of these studies primarily evaluate outdoor environments from the perspective of planners or adult observers rather than from children's own viewpoints.

Furthermore, most existing studies on community outdoor environments in Chinese cities have primarily focused on planning indicators or adult perspectives, particularly in neighbourhood outdoor environments (Guo et al., 2023). In these cases, children's needs and feelings as users have not been sufficiently incorporated into planning and design processes (Chu et al., 2025; Marcus & Sarkissian, 2023), which leaves children's own perceptions and everyday experiences of community outdoor spaces relatively underexplored.

To address this research gap, this study systematically examined children's perceptions, usage experiences, and environmental expectations in community outdoor spaces in Hefei, China. The study employed semi-structured interviews and NVivo-assisted thematic analysis to identify the key spatial elements influencing children's well-being and to explore the relationships between these factors.

2. RESEARCH METHODS

Rather than relying on numerical indicators, this research draws on the lived experiences of children aged 10–14 in Hefei, China, to explore how they perceive and use community outdoor spaces in their daily lives. To situate these accounts in their geographical setting, Fig. 3 shows the study area in Hefei, Anhui Province, China. Unlike quantitative research, which focuses on statistical relationships between variables, qualitative research emphasises how participants describe their experiences in language and construct their understanding of context and meaning during the process (Denny & Weckesser, 2022). This approach can reveal children's perceptions, emotions, and behavioural patterns in their everyday environment and help researchers identify the underlying values and emotional appeals conveyed through language (Covelli, 2024).

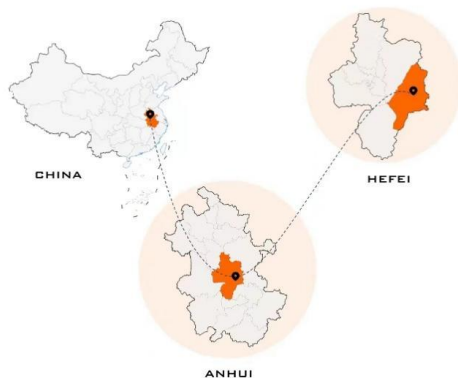


Fig. 3. Study area: Hefei, Anhui.
Source: Author's production (2025)

Related research indicates that differences in children's language expression abilities and limitations in questionnaire options often affect their capacity to fully communicate their genuine thoughts and feelings (Ma et al., 2023). Compared to structured questionnaires, qualitative interviews offer children a more open and flexible environment for expression, allowing them to share their real experiences related to the natural environment in their own words (Alme & Reime, 2021; Léger-Goodes et al., 2023).

Based on the above methodological considerations, this research systematically summarised and analysed the main spatial elements related to children's well-being in outdoor spaces across Hefei communities, using

semi-structured interviews and thematic analysis in NVivo 14. The qualitative approach was adopted to better capture children's lived experiences and subjective perceptions of community outdoor environments. The overall qualitative analysis process is illustrated in Fig. 4. Working closely with the interview material, the analysis captured how children experience their everyday surroundings and translated these insights into practical suggestions for improving design features in local community outdoor spaces.

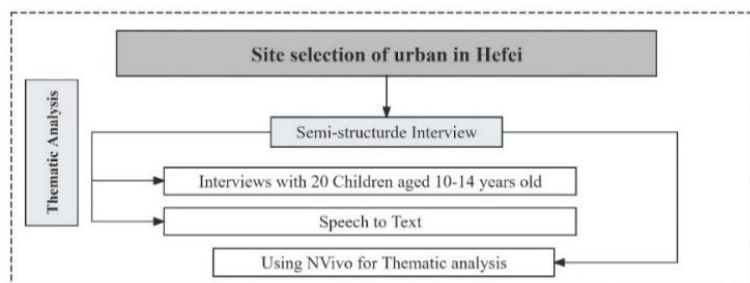


Fig. 4. Research Design Flowchart.

Source: Author's production (2025)

2.1 Interview Design

The study conducted with children in Hefei used semi-structured interviews to explore their perceptions of the outdoor environment and to delve deeper into their actual experiences of outdoor spaces in their communities. This approach has gained significant traction in paediatric research, which demands both adaptability and openness (Duran, 2021). The research methodology was developed in line with the findings of Veitch et al. and Wenger et al., who employed qualitative interviews to examine children's preferences and experiences concerning urban parks and inclusive play spaces (Veitch et al., 2020; Wenger et al., 2021).

The interview outline was developed in accordance with Aminpour's child-friendly environment interview guidelines, which aim to explore children's emotional and behavioural experiences from their perspective and are particularly relevant to research in urban community settings (Aminpour, 2023). Based on the research aims and existing literature, the interview guide included open-ended questions designed to investigate children's experiences, feelings, and expectations regarding community outdoor spaces. Key questions are presented in Fig. 5.

- 1. Please show me where you prefer to spend your time at outdoor community spaces. Explain why.
- 2. What do you like about this place?
- 3. Please show me where you don't like to be in community outdoor spaces? Explain why.
- 4. What don't you like about this place?
- 5. Why is (isn't) this space a good place for this activity?
- 6. How do you feel when you are in this place?
- 7. What makes you feel like that?
- 8. Who do you like to spend time with? Why
- 9. Do you avoid busy areas? If yes, where are these?
- 10. If you avoid busy areas, where would you go? Why?

Fig. 5. Interview Question Outline.

Source: Author's production (2025)

2.2 Study Participants

Twenty children aged 10–14 were intentionally recruited from two selected communities in Hefei City. Details of the participants' profiles are shown in Fig. 6. This age group is considered a crucial stage

for social and psychological development, and children's experiences of the community environment are especially important during this period (van Sluijs et al., 2021).

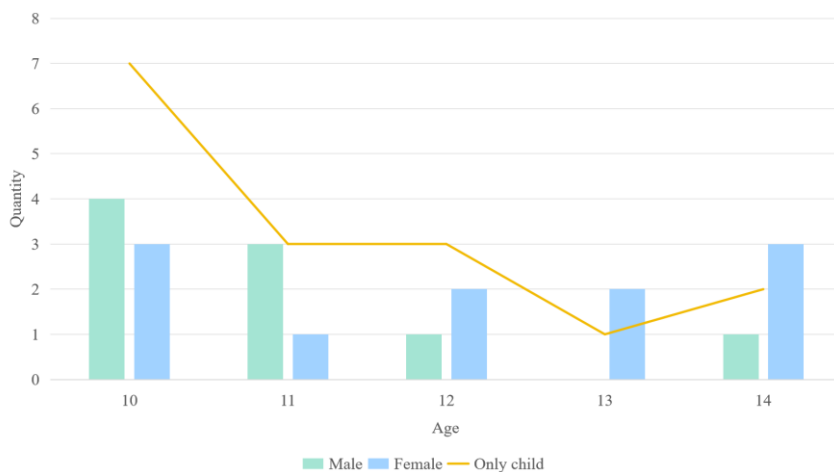


Fig. 6. Interviewee profile.

Source: Author's production (2025)

Before starting the study, the research team gave a general overview of the project to potential participants through community schools and parent associations. Participation was entirely voluntary, with parents signing written consent forms and children also giving their consent to protect their autonomy. To maintain confidentiality, all identifying details were removed, and the information collected was used solely for academic purposes. Interviews took place in environments that were both comfortable and conducive to children's concentration. Each session lasted around 20–30 minutes and was audio-recorded once written consent had been obtained from both children and their guardians.

2.3 Data Analysis

All interview transcripts were first organised in NVivo 14 and read repeatedly to familiarise the researchers with the content before formal coding began. This iterative reading process helped researchers identify initial patterns and prepare the material for systematic coding. The analytical procedure followed the six-stage thematic framework proposed by Braun and Clarke (Cernasev & Axon, 2023), while also being guided by the open–axial–selective coding logic commonly used in grounded theory in order to keep the coding structure both systematic and layered

At the beginning of the analysis, the interview transcripts were read carefully one by one, and brief labels were noted whenever a child described a particular feeling, place, or experience. For instance, when a child said, “I like that big tree; it feels like an umbrella in summer,” this was treated as a reference to shade and the appeal of natural elements.

As coding progressed, similar labels were gradually grouped together based on their conceptual similarity. In this way, references to trees, grass and flowers were brought into a broader category that represented attraction to the natural environment.

These grouped categories were then reviewed again and reorganised into fewer themes that captured the main patterns running through the interviews. To enhance the reliability of the analysis, the coding process involved repeated comparison between coded segments and the original transcripts, and emerging themes were continuously refined during the analysis. To demonstrate how this was done, Table 1 provides an example from the theme of "safety", showing how children's original words were linked step by step to

final thematic categories. After analysing the eighteenth interview, no further new concepts were observed, which suggested that the data had reached theoretical saturation (Braun & Clarke, 2021)

Table 1. Coding of Safety

| Participant | Raw Quotation from Children | Coding | Theme |
|-------------|---|-----------------------------------|--------|
| 04 | There is frequent traffic flow of people and vehicles at the entrance of the community, especially during rush hour, which can easily lead to congestion and pose certain safety hazards. | Population density | Safety |
| 03 | The community loquat plantation area is unsafe at night without lighting. | Lighting conditions | Safety |
| 09 | The signage in the residential area is poorly designed, and there are insufficient anti-slip measures on the ground, making it easy to slip and fall. | Road conditions | Safety |
| 18 | While walking the dog, he was chased and bitten by the dog. | Animal impact | Safety |
| 09 | The trees are tall, the streetlights don't reach them, and the road is slippery, making it easy to fall. | Plant status | Safety |
| 06 | The community has surveillance cameras and security guards, and children are accompanied by their parents, making it very safe. | Security and surveillance | Safety |
| 06 | Parents sometimes accompany us when we play. | Parental Control | Safety |
| 04 | Electric bikes occasionally pass through the small square at a fast speed, so please be careful. | Vehicle traffic | Safety |
| 09 | The parking lot entrance and exit are crowded with cars, private cars come and go frequently, horns are noisy, and exhaust fumes are unpleasant. | Parking lot risks | Safety |
| 07 | Remote and abandoned areas pose safety hazards. | Hidden dangers in abandoned areas | Safety |
| 05 | The underground parking garage is crowded with cars, so I don't go there often. | Underground space dangers | Safety |
| 17 | There are many cars in the underground parking lot, and I am concerned that strangers may enter. | Stranger threats | Safety |

Source: Author's production (2025)

2.4 Ethical Oversight

This study received formal approval from the Research Ethics Committee at Universiti Teknologi MARA (UiTM) (Approval No.: REC/10/2024 (PG/MR/491)). Before any interviews took place, the aims and procedures of the study were explained to the children and their guardians, and their agreement to take part was obtained. During the research, children could stop participating whenever they felt uneasy or chose not to continue. All information collected was used for academic analysis only, and any details that might allow individuals to be recognised were removed during data handling, ensuring participants could not be identified.

3. RESEARCH RESULTS

Based on NVivo 14 coding and thematic review of the interview transcripts, six key aspects were identified in children's accounts: safety, comfort, fun, accessibility, naturalness, and their expectations for future

spaces. Rather than presenting these themes as a simple list, they were arranged into a three-level structure that reflects how they relate to one another: basic conditions, enabling factors, and psychological value with future orientation, as illustrated in Fig. 7.



Fig. 7. Thematic Structure of Children's Perceptions: A Three-Tier Framework.
Source: Author's production (2025)

3.1 Basic Conditions: Safety and Comfort

Safety and comfort are vital requirements that enable children to access and stay in community outdoor spaces. In the interviews, safety was identified as a nearly universal concern, covering three areas: traffic conditions, the state of facilities, and environmental risks. Traffic concerns were regarded as the most urgent. As one participant said, *"There are too many cars at the entrance of the community, I don't dare to go there alone"* (Participant 03), emphasising the mixture of motorised and non-motorised vehicles and the lack of clear pedestrian–vehicle separation—factors that directly limit independent mobility. Repeatedly, references were made to ageing equipment and missing safety features; for example, *"There was no guardrail by the pool, I almost fell in, and the water was very deep"* (Participant 05). Children also mentioned loose or damaged swings and slides that reduced their sense of security. Beyond physical dangers, environmental cues—insufficient lighting after dark, overgrown vegetation blocking views, or unfamiliar adults lingering in certain corners—caused children to avoid those areas and feel afraid.

The children surveyed usually linked this with the cleanliness of the environment, the accessibility of facilities, enough activity space, and the social atmosphere of the community. They generally preferred to stay and play in quiet, orderly, and well-maintained areas, as one respondent noted: *"The aunts and uncles in the park clean up every morning, and you can hardly see any trash"* (Respondent 14). Such care not only motivates children to use the space but also reassures parents and makes it easier for children to embrace independent play. *"The activity centre is quite spacious and comfortable, making people feel refreshed"* (Respondent 12), creating an environment that supports running, team play, and other group activities. Comfort was also socially constructed; meeting familiar neighbors and exchanging greetings fostered warmth and a sense of belonging— *"The neighbors in the community are very friendly and greet each other when they meet, which makes me feel very warm"* (Interviewee 07). Conversely, disorderly environments—litter, noise, or chaotic atmospheres—reduced the amount of time children chose to.

3.2 Enabling Factors: Fun and Accessibility

Fun was repeatedly described by the children as an important reason for wanting to spend time outdoors. When they talked about their neighbourhood play spaces, many children said that the existing environments felt repetitive and did not offer enough variety. Several expressed a wish for places that would be more interesting and give them more to explore. This was clearly reflected in comments such as, *"I want a big playground with a long slide and a Ferris wheel"* (Respondent 04), which shows that children were looking for play spaces that go beyond basic equipment. Some children also mentioned that new kinds of facilities would make outdoor spaces more attractive. For example, one child said, *"It would slide if there were some exploratory or smart facilities"* (Respondent 08).

Spending time with other children was also an important part of what made outdoor spaces enjoyable. Many interviewees talked about sports areas, such as basketball and badminton courts, as places where they could be active and meet friends. Games such as hide-and-seek were often mentioned, although some children felt the available spaces were not always large enough. As one child explained, *"I like places where I can play hide-and-seek with my friends, but sometimes I feel that the space is not big enough"* (Interviewee 09). When outdoor spaces did not offer enough room or variety, children were more likely to stay indoors or turn to digital activities, reducing opportunities for movement and face-to-face interaction.

Accessibility was another factor that strongly influenced how often children used community outdoor spaces. When describing how they travelled to these places, children frequently referred to how far they had to go, how safe the route felt, and how easy it was to get there. Living close to a play area made a clear difference. One child explained, *"It's super convenient. My house is just around the corner from the small garden, so my mum feels comfortable letting me go there alone"* (Respondent 04). Being nearby allowed children to go out on their own and organise their activities with less reliance on adults. In contrast, places that were farther away or harder to reach were described less positively. This was expressed in the comment, *"Some places are too far away and take a long time to get to, so I don't want to go"* (Interviewee 10), indicating that distance and travel effort can discourage children from visiting certain outdoor spaces.

Based on children's actual experiences, fun and accessibility together influence whether and how they continue to use outdoor spaces. Fun offers attraction and motivation for activities, while accessibility determines whether these activities can be practised regularly in daily life. The interaction of these two elements transforms community outdoor spaces from "existing resources" into "places that can be frequently used".

3.3 Psychological Value and Future Orientation: Naturalness and Anticipation

Besides direct environmental conditions and influencing factors, feelings and expectations of nature highlight the deeper psychological value that public open spaces provide to children, as well as their ideas for future improvements.

Children often talked about natural elements when describing how they felt in outdoor spaces. Trees, flowers, water and small animals were mentioned frequently, and these features were usually linked to feeling calm, relaxed or in a better mood. One child explained, *"I like to touch the petals and listen to the birds singing in the small garden, and my mood instantly improves"* (Interviewee 04). Another child said, *"I look for ants and butterflies in the neighbourhood, and I go to see them every day"* (Interviewee 07). For these children, nature was not only something to look at but also something they noticed, visited, and interacted with in their daily lives. Several children also described natural spaces as places where they could explore and learn, such as running under trees, watching insects, or looking at fish in the water. One child said, *"When I'm unhappy, I like to go for a walk in a place with flowers and plants"* (Respondent 11), showing how being around greenery was part of how they coped with negative feelings.

When children talked about what they hoped their communities would be like in the future, natural elements again appeared as an important part of their wishes. Many wanted more plants and water features

in their neighbourhoods. As one child put it, *“I hope there will be more trees and flowers in the community, as well as small streams and ponds”* (Interviewee 01). At the same time, they also talked about play facilities, often saying that they wanted spaces that felt more interesting than the ones they already had. One respondent imagined *“a big children’s playground with a Ferris wheel”* (Respondent 04). Safety was another topic that came up when children described future outdoor spaces. Some felt that better lighting and clearer facilities would make it easier for them to go out on their own, as one child said, *“Some places are too dark, so I hope they will install more lights”* (Respondent 03). Sports spaces were also important, especially for being active with friends, with one child explaining, *“I hope the community can build more sports fields so that I can play ball with my friends”* (Respondent 06).

Taken together, what children say about nature and about their hopes for the future shows how closely these outdoor spaces are tied to their everyday feelings, activities and social lives. Natural settings were associated with feeling calmer and more comfortable, while their ideas about future spaces reflected a wish for places that felt safer, more lively and easier to share with friends. In this sense, child-friendly communities depend not only on maintaining green areas but also on the design and care of outdoor spaces that fit children’s daily routines and relationships.

4. DISCUSSION

This study is based on semi-structured interviews with children aged 10–14 in Hefei, which were analyzed using NVivo-assisted thematic analysis. This qualitative approach makes it possible to understand how children interpret and experience community outdoor spaces in their everyday lives rather than relying only on externally defined spatial indicators. Through these interviews, six main areas emerged regarding how children experience community outdoor spaces: safety, comfort, fun, accessibility, natural elements, and their views on how these places should change in the future. To clarify how these elements relate to one another within the broader conceptual framework, the six themes were grouped into three interrelated layers rather than being treated as separate categories. Safety and comfort together describe the basic circumstances that determine whether children can reach outdoor spaces, stay there, and use them. Fun and accessibility, by contrast, influence how attractive these spaces feel to children and how easily they can keep returning to take part in activities over time. Another layer concerns psychological values and future orientation, reflecting how children talk about their emotional connections to natural features and what they hope community spaces might become. Viewed together, these three layers make it easier to see how children’s everyday experiences are tied to the spaces around them, and they also show why different qualities of outdoor environments affect children’s well-being in daily life. The framework, therefore, highlights how physical conditions, behavioural opportunities, and emotional connections jointly shape children’s interactions with community environments.

4.1 Basic Conditions: Decide if the child is ready to take their first step

In interviews about outdoor activities, children most often began by talking about whether a place felt safe and comfortable. Interview data reveal that safety issues were repeatedly highlighted, with concerns mainly centred on traffic conditions, the reliability of facilities, and the sense of security provided by the surrounding environment. Earlier research has reported similar patterns, showing that heavy traffic, unsafe routes, and poorly maintained facilities reduce children’s opportunities to use public spaces and limit their independence (Anbaran et al., 2021; Lis et al., 2025).

Some mentioned avoiding these areas in the evening because they felt unsure or uncomfortable, which reflects the link between environmental features and children’s psychological states reported in earlier research by (Mphaphuli, 2023). Together with physical conditions, these emotional responses influence how children experience and use public spaces and shape whether a place feels welcoming. This suggests that children’s mobility and activity choices are influenced not only by objective safety conditions but also by how safe and comfortable they feel in each environment.

This finding highlights the importance of perceived safety in shaping children's independent mobility and their willingness to spend time in community outdoor environments. Several children also described choosing their routes and play areas based on how safe they felt along the way, rather than only on where facilities were located. In this sense, everyday feelings of comfort and unease became part of how they decided where to spend time outdoors.

Many children brought up the idea of comfort when they talked about the kinds of outdoor places, they enjoyed spending time in. In the interviews, several said they preferred places that felt clean, open, and easy to stay in, and some added that they felt more relaxed when familiar neighbours were around. One child mentioned that when a place looked cared for, both they and their parents felt more comfortable letting them go there alone. These comments echo earlier studies' findings on the links between comfortable environments and children's social and emotional well-being (Vlasenko et al., 2023). At the same time, children did not talk about comfort as only something physical. How people behaved in these spaces also mattered, often shaping whether a place felt welcoming.

4.2 Enabling Factors: Determine if the child is willing to use space often

Children continue to use community outdoor spaces when these places feel safe and comfortable, and when they offer activities that children enjoy and can reach easily. In the interviews, many children described enjoyment as a main reason for taking part in outdoor activities, and several compared this with their dissatisfaction with more conventional playground equipment, such as standard swings and slides, which they felt were less engaging than more creative and exploratory environments. These comments show how children evaluate outdoor spaces not only by what is provided but also by how those spaces support curiosity, movement, and sustained interest. In this sense, play environments that encourage exploration and interaction may contribute to longer engagement and more frequent outdoor activities among children. Previous research has shown that play environments offering more varied and interactive features are associated with increased social interaction, cooperative play, and opportunities for exploration among children (Aminpour, 2023). Children often spoke about enjoying outdoor spaces for the time they could spend with others there. Playing games together, sharing activities, and being with friends made these places feel more inviting and more worthwhile to visit.

How easy it was to get to these places also shaped how often children used them. In their descriptions, children frequently referred to how far a place was, how safe the journey felt, and whether they could go there on their own. Locations close to home were usually favoured because they saved time and made it easier for children to organise their own activities without needing constant supervision. By contrast, places that were far away or required crossing busy roads were less attractive and were sometimes avoided. This pattern is consistent with earlier findings that more accessible environments are associated with higher levels of activity and independence among children (Qiu & Zhu, 2021; Zhou et al., 2022).

These features determine how easily children can move between home, play areas, and other places they use. When routes are simple and feel safe, children are more willing to go out by themselves, which supports both independent mobility and more frequent use of outdoor spaces. Children also talked about some outdoor places they liked to return to, especially when there was something interesting to do there. At the same time, how often they went back was closely tied to practical issues such as distance and convenience. When a place was easy to reach, children tended to stay longer and felt more relaxed using it. Over time, these repeated visits helped turn these spaces into familiar parts of their daily routines.

4.3 Psychological Value & Future Orientation: Children gain psychological fulfilment and set expectations for future environments

Children in this study often referred to natural features—such as trees, flowers, water, and small animals—when describing what made community outdoor spaces enjoyable and easy to use. Many of them explained that these elements provide opportunities for sensory engagement and everyday exploration and

that they also help people feel calmer and less mentally stressed during and after outdoor activities. Similar patterns have been noted in earlier research, pointing to the role of natural environments in supporting children's psychological well-being and emotional strength (Ríos-Rodríguez et al., 2024; Zhou et al., 2022). Together, these results are consistent with how subjective well-being has been described in literature, where experiences in natural settings are linked not only to enjoyment but also to the development of a longer-term emotional attachment to the environment (Bressane et al., 2024). This suggests that natural elements in community outdoor spaces may play an important role in supporting children's emotional well-being and everyday stress recovery.

When talking about their current experiences, children also described what they hoped to see in future community environments. These expectations focused on safety, the variety and interactivity of facilities, the presence of natural elements, and the availability of spaces for group activities. What children expressed reflects not only practical needs but also their understanding of what makes a living environment more inclusive and enjoyable. Work in this area has reported comparable patterns, in which children's views are taken into account in the planning of spaces intended to be child-centred and socially welcoming (Gill, 2021; Taheri et al., 2025).

Children's descriptions of "naturalness" and their ideas about future community spaces show how outdoor places become part of their everyday emotional lives. When they talked about trees, plants, or green spaces, they were not treated as mere scenery. Children linked them to feeling calmer, staying longer, and having things they wanted to look at or move around in. What they said about the future reflected the same logic: they wanted outdoor places that felt safe and comfortable, that were easy to get to, and that remained interesting enough to keep coming back to on their own. These expectations suggest that child-friendly outdoor environments should not only provide physical infrastructure but also respond to children's emotional needs and everyday activity patterns.

5. CONCLUSION

This study takes children's own perspectives as a starting point to explore how community outdoor spaces relate to their well-being. The results suggest that when children think about these spaces, they tend to pay particular attention to whether they feel safe and comfortable, while how enjoyable a place is and how easy it is to reach often affect how frequently they use it. Children also spoke about the role of natural elements in their everyday experiences, especially in helping them relax or manage their mood. In addition, many of them expressed expectations for how their local outdoor spaces could be improved in the future. These patterns indicate that child-friendly environments need to strike a balance between safety, accessibility, interactive features and natural elements to support both physical activity and psychological development. From a planning perspective, this means that community outdoor spaces should be designed not only to meet basic safety standards but also to provide diverse and engaging environments that encourage children's independent mobility and social interaction. Taking children's experiences and views into account in planning and design is therefore an important step toward creating more inclusive and sustainable community spaces. From a research perspective, this study also demonstrates the value of incorporating children's voices into urban environmental research, as their lived experiences often go overlooked in adult-centred planning approaches.

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7. CONFLICT OF INTEREST STATEMENT

The authors confirm that this research was carried out without any personal, commercial, or financial conflicts of interest and declare no conflicts of interest with the funders.

8. AUTHORS' CONTRIBUTIONS

Wei Xiaohui conducted the research and wrote the article. **Nurhayati Abdul Malek** conceptualised the central research idea, revised the article, supervised its progress, and led the review, approving the article for submission. **Salina Mohamed Ali** oversees the overall revision and proofreading process.

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