

Enhancing Social Safety in Positive Behaviour Support (PBS) Neighbourhoods by Implementing Child-friendly Urban Planning and Design



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ABSTRACT

This paper aims to analyse children views on social safety in their neighbourhood in Rotterdam, the Netherlands and their suggestions for neighbourhood improvements through the use of urban planning and design. The main topic of this study is children's subjective social safety in Positive Behaviour Support (PBS) neighbourhoods in Rotterdam, with an emphasis on deepening understanding of how urban planning and design can enhance children's social safety in these neighbourhoods. PBS neighbourhoods are defined as vulnerable neighbourhoods with risk factors that could jeopardise development of children. "How can urban planning and design contribute to an increased sense of social safety for children in Positive Behaviour Support (PBS) neighbourhoods?" is the main question that led this study. This question was answered through a collection of primary data in the form of semi-structured interviews with children the PBS neighbourhood, named Bloemhof. This research showed that the children would like to see increased presence of police and surveillance, presence of more greenery, nature, or colour to brighten place up, more lighting, more influence over neighbourhood planning, and more enclosed spaces, to ensure that children feel socially safer in their neighbourhood. Further research should show whether children in less prosperous and less safe neighbourhoods, such as Bloemhof, experience social safety differently than children in more prosperous and safer neighbourhoods.

Key words: *Rotterdam, Child-friendly urban planning and design, social safety, PBS in the neighbourhood, neighbourhood improvements*

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1. Introduction

1.1 Background

Rotterdam has significantly invested in the child-friendliness of the city, focusing on ensuring that children can play safely, can get to activities safely, and that there are enough facilities and activities to do nearby (BOOM strategy and communication, 2021). However, this policy on enhancing the child friendliness of neighbourhoods primarily targeted the more affluent neighbourhoods with less emphasis on the less affluent neighbourhoods in Rotterdam (Gill, 2021). Some of these less affluent neighbourhoods have a program called 'Positive Behaviour Support (PBS) in the neighbourhood' with the goal of creating a long-lasting positive atmosphere to improve social safety for children.

Through the "PBS in the neighbourhood" program, this research includes children in urban planning and design. It aims to reduce the gap between affluent and less affluent neighbourhoods in order to make the less affluent neighbourhoods more child friendly. Children involved in the "PBS in the neighbourhood" programme have knowledge of good social behaviour in public spaces and knowledge about the importance of social safety, and therefore, they are well-positioned to design their neighbourhood with a focus on social safety. In other words, a neighbourhood in which children can enjoy playing and exercising, in which they feel safe in their own home and in which they can walk safely on the street.

From a scientific perspective, this research is significant, because it fills a knowledge gap in the existing literature on urban planning and social safety. It examines the unique contributions of children's perspectives in shaping safer, more inclusive neighbourhoods, particularly in the less affluent neighbourhoods where this research is conducted. The research is important from a social perspective, because it focuses on the inclusion of children in urban planning and design, aligning with the principles of the UNCRC. These principles acknowledge children as citizens with the right to various aspects of well-being and participation, including recreation, free time and play (United Nations, 1989). Since most of these rights depend on places and spaces, the fulfilment of these rights can be facilitated by urban planning and design (Ataol et al., 2019).

1.2 Research aim

This research aims to investigate and measure the subjective social safety of children in Positive Behavior Support (PBS) neighbourhoods. It specifically focuses on increasing insight into how effective urban planning and design can contribute to improving social safety for children in these neighbourhoods, through the use of semi-structured interviews with children. The central question that logically arises from this aim is: ***"How can urban planning and design contribute to an increased sense of social safety for children in PBS neighbourhoods?"***

The following sub-questions guarantee that the central question can be answered:

- 1. How do children in PBS neighbourhoods perceive socially safe places in their neighbourhood?*
- 2. How do children in PBS neighbourhoods perceive socially unsafe places in their neighbourhood?*
- 3. What suggestions do children in PBS neighbourhoods make to improve their social safety through the use of urban planning and design?*

1.3 Structure of thesis

There are three sections to this research. Section 1 provides detailed explanations of the theories and concepts underlying the research's findings. The research findings are covered in detail in the second section of this paper, and a discussion of the findings and an answer to the main research question are covered in the last section.

2. Theoretical Framework

2.1 Social safety

Social safety means that people feel protected against danger caused by or threatened by human actions in public space (Crow, 2014). A socially safe environment is seen as an environment in which people can move freely without fear of being threatened or exposed to crimes by others. Social safety of children can be jeopardised by the crime children face (Christian et al., 2015). Social safety can be measured objectively and subjectively (Crow, 2014). Objective social safety includes measurable criteria, such as crime statistics and traffic accident statistics. Subjective social safety concerns the feeling of safety in an environment and is based on people's perception of safety in public spaces. It is vital for this research to examine children's perceptions of social safety in their neighbourhood, which refers to the subjective social safety of children.

Research has shown that children feel socially safe and secure in their neighbourhood if there is easy access to friends and a network of extended family, neighbours, and parents of friends (Rogers, 2012). This finding is also backed up by another research. Crawford et al. (2017) concluded that children find it important to know the people in their immediate environment. When the children were familiar with adults in their community, they reported feeling more confident, and when there were more strangers around them, they reported feeling more cautious.

Children being more cautious in places where strangers are around ('stranger danger'), contributes to their sense of insecurity in the neighbourhood. Children stated in another study that they feel uncomfortable in the presence of strangers (Harden et al. 2000). The children in this study most frequently mentioned drug-abusing, binge-drinking teenagers in parks and groups of young people hanging around, which made them feel unsafe. Therefore, when strangers caused trouble in public, the children started to feel unsafe.

Furthermore, studies have revealed that children tend to feel safe when they are near their homes (Francis & Lorenzo, 2006; Harden et al., 2000; Scott, 2000). Harden et al. (2000) noted that children perceive risky environments based on their proximity to familiar surroundings and their homes. The children in this study linked feelings of safety to being close to home and familiar places, while unfamiliar areas were associated by children with a range of fears, and therefore unsafety.

In addition, research shows that the presence of police does not improve residents' sense of safety in typically "safe" neighbourhoods (Van de Veer et al., 2012). This might be the case, because seeing police in the neighbourhood can act as a warning indicator, drawing people's attention to possible threats in their immediate surroundings and therefore, lowering their sense of safety. It is interesting to note that, contrary to expectations for typically "safe" neighbourhoods, the presence of police in typically "unsafe" neighbourhoods actually reduces residents' fear of crime, and thereby giving them a sense of safety. The study by Hinkle & Weisburd (2008) likewise concludes that having more police on the streets may make residents feel unsafe. The increased police presence may be making residents feel uneasy because it serves as a reminder that there are issues in their neighbourhood, which exacerbates their anxiety. However, this study also suggests that residents' sense of uneasiness can be reduced if there is a significant community component to the police presence on the streets, or if the presence is followed by community contacts.

Moreover, research have shown that having greenery around the neighbourhood can make people feel safer because trees are known to improve people's cognitive functions (such as lowering stress) and to support children's physical and mental development (Beyer et al., 2014; Jacobs, 1961; Kuo et al., 1998). Additionally, this finding is supported by another research on children's perceived neighbourhood safety. Côte-Lussier et al. (2015) discovered a positive relationship between the presence of trees and children's perceptions of safety in their neighbourhoods.

The amount of lighting is also a significant factor for children's feeling of safety in their neighbourhood. The latter study concluded that children feel safer in the neighbourhood when there is more street lighting present (Côte-Lussier et al., 2015).

2.2 PBS in the neighbourhood

"PBS in the neighbourhood" is derived from an American methodology (Gore et al., 2013), School Wide Positive Behavior Support (SWPBS), aimed at creating a safe school environment by outlining and encouraging desired behaviour in children (Van Leeuwen et al., 2018). This method has been successful in creating positive school climates in the United States and Norway (Bradshaw et al., 2010; Horner et al., 2009; McIntosh et al., 2013; Sørli & Ogden, 2015). For the "PBS in the neighbourhood" initiative, this method is extended beyond schools to entire neighbourhoods. With the goal of creating a long-lasting positive atmosphere, the "PBS in the neighbourhood" programme helps professionals, volunteers, and other stakeholders foster a positive neighbourhood culture by offering them practical guidance and support (Van Leeuwen & Albrecht, 2021). These individuals receive training on practicing and modelling positive behaviour for children. Modelling and practicing are two effective elements for learning behaviour (Bandura, 1986).

Children, young people, and adults are encouraged to behave in a positive social manner, which enhances neighbourhood interactions and fosters social safety. The approach collaborates with educational institutions, and other youth organisations in the neighbourhood to actively encourage and reward positive behaviour while reducing negative behaviour through quick intervention, and showcasing positive behaviour models (Van Leeuwen & Albrecht, 2021).

Youth organisations have developed a set of values to guide interactions with children, ensuring consistency in behaviour guidelines and approaches regardless of the child's identity or circumstances (Van Leeuwen et al., 2018). As a result, a "PBS language" is created, which guarantees predictability and, thus, safety.

The "PBS in the neighbourhood" programme is meant for vulnerable neighbourhoods with risk factors that could jeopardise healthy young development (Van Leeuwen & Albrecht, 2021). Municipalities identify these areas using data, such as Rotterdam's "The State of Youth" database. "PBS in the neighbourhood" was originally created especially for Rotterdam. The municipality of Rotterdam started this program in the neighbourhoods, Bloemhof, Crooswijk, and Feijenoord.

2.3 Child-friendly urban planning and design

Child-friendly urban planning and design is an evolving set of ideas about shaping streets, parks, squares and other public spaces to the needs and wishes of children, so that children are

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active and visible in urban life (Gill, 2021). With a focus on taking into account the experiences and wishes of children, this strategy incorporates their voices, and uses urban planning and design to give children a better experience in cities by providing more opportunities to play, explore the neighborhood and move around better. Enhancing the child-friendliness of cities is also promoted through the Child Friendly Cities initiative (CFCI), led by UNICEF, and grounded in the UN Convention on the Rights of the Child. CFCI assists local governments in implementing children's rights at the local level (The Child-Friendly Cities Initiative, n.d.).

Central to child-friendly urban planning and design is the belief that urban environments for children have access to clean, green, unstructured public areas where they can have adventures (UNICEF, 2012). In addition, children prefer flexible mixed-use spaces over monofunctional zoning, therefore spaces with a diversity of forms, materials, and uses are equally desired (Francis & Lorenzo, 2006). Gill emphasises in his book "Urban Playground" (2021) that the main responsibility of a child-friendly planner or designer is to take down the gates and fences and let children play in the public space beyond, where they can have rich, engaging experiences and interactions with the people and surroundings around them.

2.4 Child-friendly Rotterdam

In this research the focus is on Rotterdam. Under the initiative known as "Child-friendly Rotterdam," Rotterdam aims to make the city and its neighbourhoods more child-friendly (Gill, 2021). The municipality noticed that many families (with a higher socio-economic status) were in danger of fleeing the city, resulting in economic loss and less creativity, which contributed to a bad image of Rotterdam (Gill, 2021). Rotterdam made investments to create child-friendly environments in an effort to draw in and keep these families and boost the city's economy and attractiveness. From 2014 to 2018, efforts were concentrated in nine neighbourhoods, including Oude Noorden, Nieuwe Westen, Middelland, Liskwartier, Nieuw Crooswijk, Kralingen West, Lloydkwartier, Katendrecht and Kop van Zuid-Entrepot (OBI, 2016). Safety is the focus of the "Child-friendly Rotterdam" initiative; it is made sure children can play safely, can go to activities safely, and that there are sufficient facilities and activities to do nearby (BOOM strategy and communication, 2021). The evaluation showed that four of the nine target neighbourhoods became more child-friendly, and that the percentage of prosperous families in these target neighbourhoods has increased by 10% in 2017 and continued to rise in subsequent years.

The above policy initially focused mainly on the more prosperous neighbourhoods (after all, the goal was to keep more prosperous families in the city) and less on poorer neighbourhoods. For example, the south of Rotterdam, which is more ethnically diverse and economically disadvantaged, has benefited much less from the above policy (Gill, 2021).

2.6 Conceptual Model

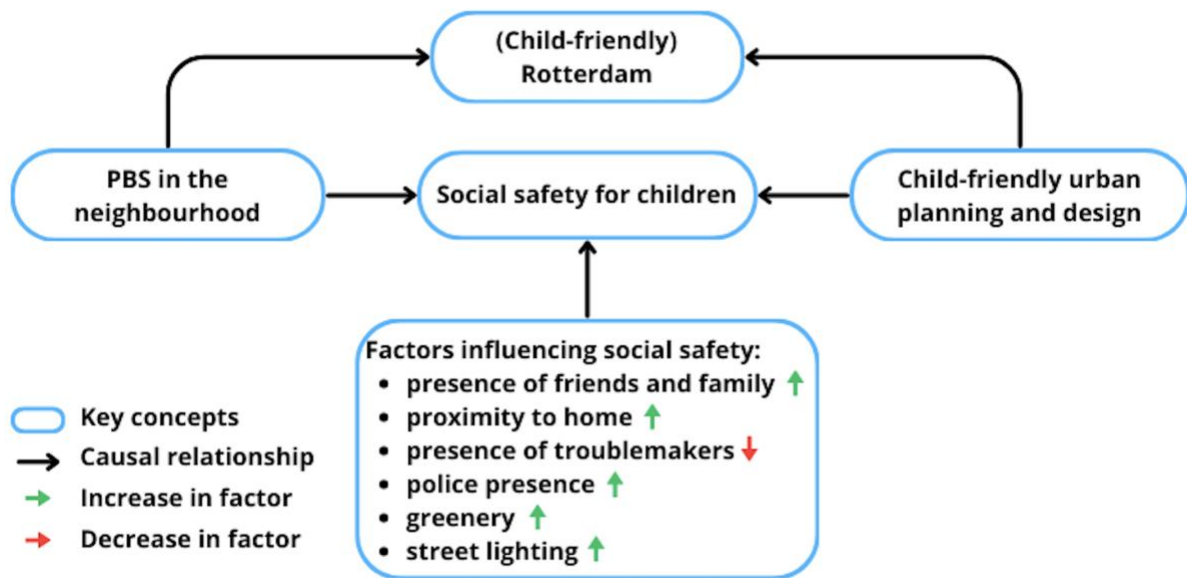


Figure 1: Conceptual model (Hagedoorn, 2024)

The theoretical framework's main concepts are represented by this model (figure 1), which has the concept, “social safety for children”, in the centre. The two concepts that influence and stimulate social safety for children are “PBS in the neighbourhood” and “Child-friendly urban planning and design”, which are both implemented in “(Child-friendly) Rotterdam”. These two concepts will have a positive effect on social safety, if the factors “presence of friends and family”, “proximity to home”, “police presence”, “greenery”, and “street lighting” in the neighbourhood increase, and “presence of troublemakers” in the neighbourhood decreases. This is visually represented by green arrows indicating which factors need to be increased, and a red arrow indicating which factor needs to be decreased.

2.7 Expectations

By interviewing children in PBS neighbourhoods, it is expected that the findings from the semi-structured interviews align with the theories and concepts discussed in the theoretical framework.

3. Methodology

3.1 Research Design

Because children's opinions on social safety and urban planning and design are requested, primary data has been collected in this research through semi-structured interviews with children. Interviews were performed to learn more about children's subjective experiences and perceptions of social safety in their neighbourhood. Children are then questioned about what they think needs to be done to improve the social safety of the neighbourhood. The goal of this is to identify specific elements of urban planning and design that directly affect children's feelings of social safety in PBS neighbourhoods.

3.2 Participant Recruitment

In this study it was decided to interview children who participate in the “PBS in the neighbourhood” program. Children in neighbourhoods where “PBS in the neighbourhood” is employed have knowledge of good social behaviour in public spaces and knowledge about the importance of social safety. Thus, they are well-positioned to be interviewed to measure subjective social safety in Rotterdam's PBS neighbourhoods. In order to find children who were interested in taking part in this study, Emilie van Leeuwen, project leader of “PBS in the neighbourhood”, was contacted. After contacting elementary schools in the PBS neighbourhoods of Rotterdam, she found that students from group 8 at the PCB Oranjeschool primary school in the neighbourhood Bloemhof were interested in taking part in this study.

3.3 Participant Profile

Interviews were conducted with ten children at the PCB Oranjeschool in the neighbourhood called Bloemhof in Rotterdam (figure 2). Bloemhof is considered a neighbourhood where there are challenges; there is a significant degree of crime and poverty (Gunneweg, 2023). Additionally, those ten children involved in the study are in group 8, children in group 8 are typically between the ages of 11 and 12. This research gains from interviewing school-aged children since they are more independent and do not receive as much supervision from caregivers as younger age groups (Ataol et al., 2019). Rather than having their parents or their guardians guide them, these children explore their neighbourhood on their own. This allows the children to have firsthand, significant experiences with their environment, which is essential for enhancing children's social safety with child-friendly urban planning and design. Additionally, there were four females and six males in the group (figure 2). Aiming for as equal a distribution and representation of girls and boys as feasible, the selection process took into account the possibility of differing experiences and viewpoints of girls and boys with relation to urban planning and social safety in their neighbourhood. No more personal information was needed from the children, other than the fact that they are of children's age and that approximately an equal number of girls and boys participate in the study. Moreover, other personal characteristics are not important for this research. It is important that the children participate in the program “PBS in the neighbourhood”.

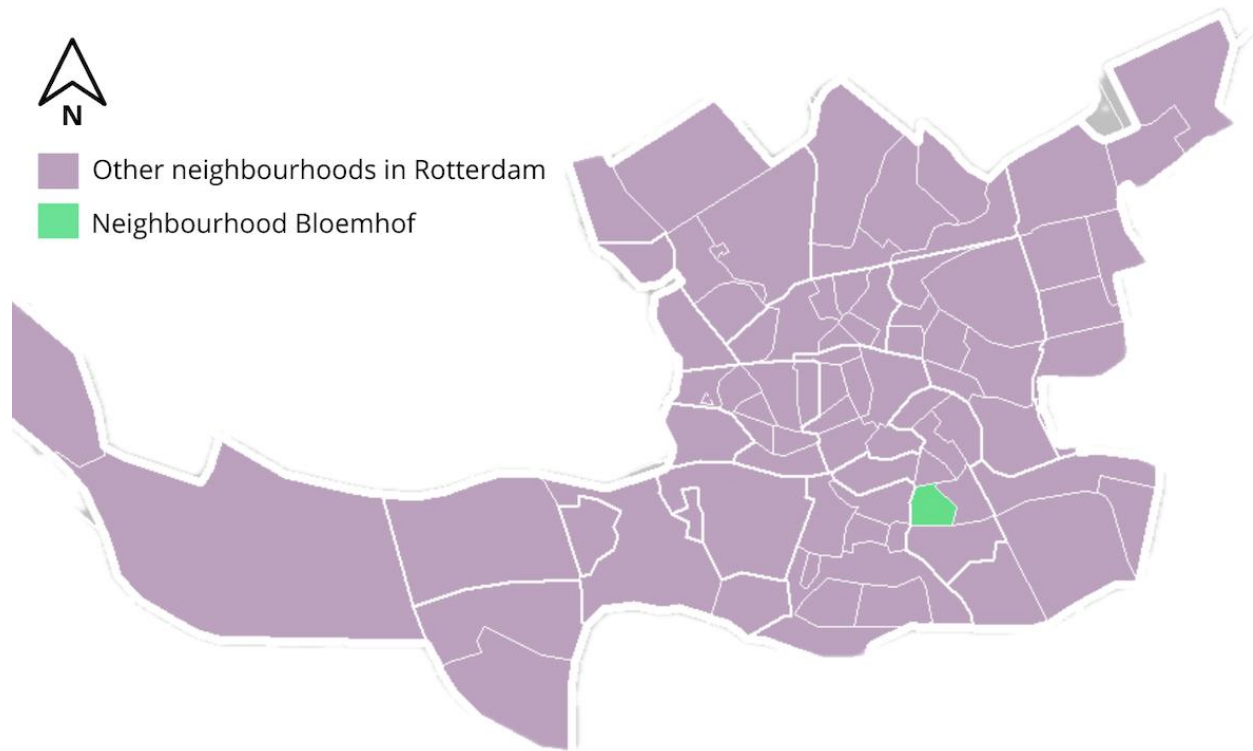


Figure 2: The location of the neighbourhood Bloemhof in Rotterdam, the Netherlands (Wikipedia, 2023; edited by Hagedoorn, 2024)

3.4 Data Collection Procedure

The data was collected through five semi-structured interviews with an average duration of 12 minutes and 45 seconds (table 1). The interviews were conducted in the staff room of PCB Oranjeschool during school hours. The children were interviewed in pairs. Sound recordings were used to process the data. A semi structured questionnaire, which can be found in Appendix A (interview guide), was constructed with the help of a qualified psychologist researcher and served as the framework for the interviews. These interview questions explored the participants' perspectives on social safety, their experiences with it, and how urban planning and design may enhance social safety in their neighbourhood.

3.5 Data Analysis

After conducting the interviews, the audio recordings were converted into text, after which these texts were translated from Dutch to English. The transcribed interviews can be found in Appendix B. The interview transcripts were coded using the Atlas.ti software to systematically analyse the qualitative data. Atlas.ti helps with identifying themes and patterns in the interview data. The interview coding scheme is displayed in figure 3. "Safe places" highlights the places in the neighbourhood that the interviewed children have identified as places where they feel safe. "Unsafe places" shows the places in the neighbourhood that they have described as unsafe, and "Neighbourhood improvements" illustrates the suggestions that the children have for enhancing the neighbourhood's spatial layout.

Interview #	Interviewees	Gender of interviewees	Duration of interview
1	Child 1 & 2	Female & Female	14:55 min
2	Child 3 & 4	Female & Female	14:32 min
3	Child 5 & 6	Male & Male	15:05 min
4	Child 7 & 8	Male & Male	07:09 min
5	Child 9 & 10	Male & Male	10:34 min
Average			12:45 min

Table 1: Background information on interviews (Hagedoorn, 2024)

3.6 Limitations

A limitation of this study includes the relatively small sample size, which may restrict the generalizability of the findings. There is a chance that children from other places of residence have a different perspective on social safety and urban planning and design. Nonetheless, the small sample size and the qualitative approach allows for in-depth exploration of children's perspectives that larger, more quantitative studies might overlook. Another limitation could be that this study only explored the perspectives of children around 11-12 years old on social safety and urban planning and design. It could be that other age groups have different opinions and preferences on these topics, but the results of this study can still offer useful background knowledge, where further research can build on. Additionally, the fact that the interviews were done in pairs presents another drawback since it may have encouraged children to agree with their classmates more quickly. However, this was not the case, as the children continued to freely express their own opinions and perspectives. Moreover, in the paired interviews, each child was required to respond to the interview questions.

3.7 Ethics

Ethical considerations play a crucial role in primary data collection, particularly when conducting interviews with children. It is essential to prioritize ethical guidelines to safeguard their rights, dignity, and overall well-being, as highlighted by Phelan and Kinsella (2012). Informed consent was obtained from the children's and children's legal guardians prior to the interviews. The consent form sent and approved by the parents or legal guardians can be found in Appendix C. The children were interviewed anonymously. Additionally, permission has been requested to use sound recordings. Participants were assured of their right to withdraw from the interview at any time without consequence.

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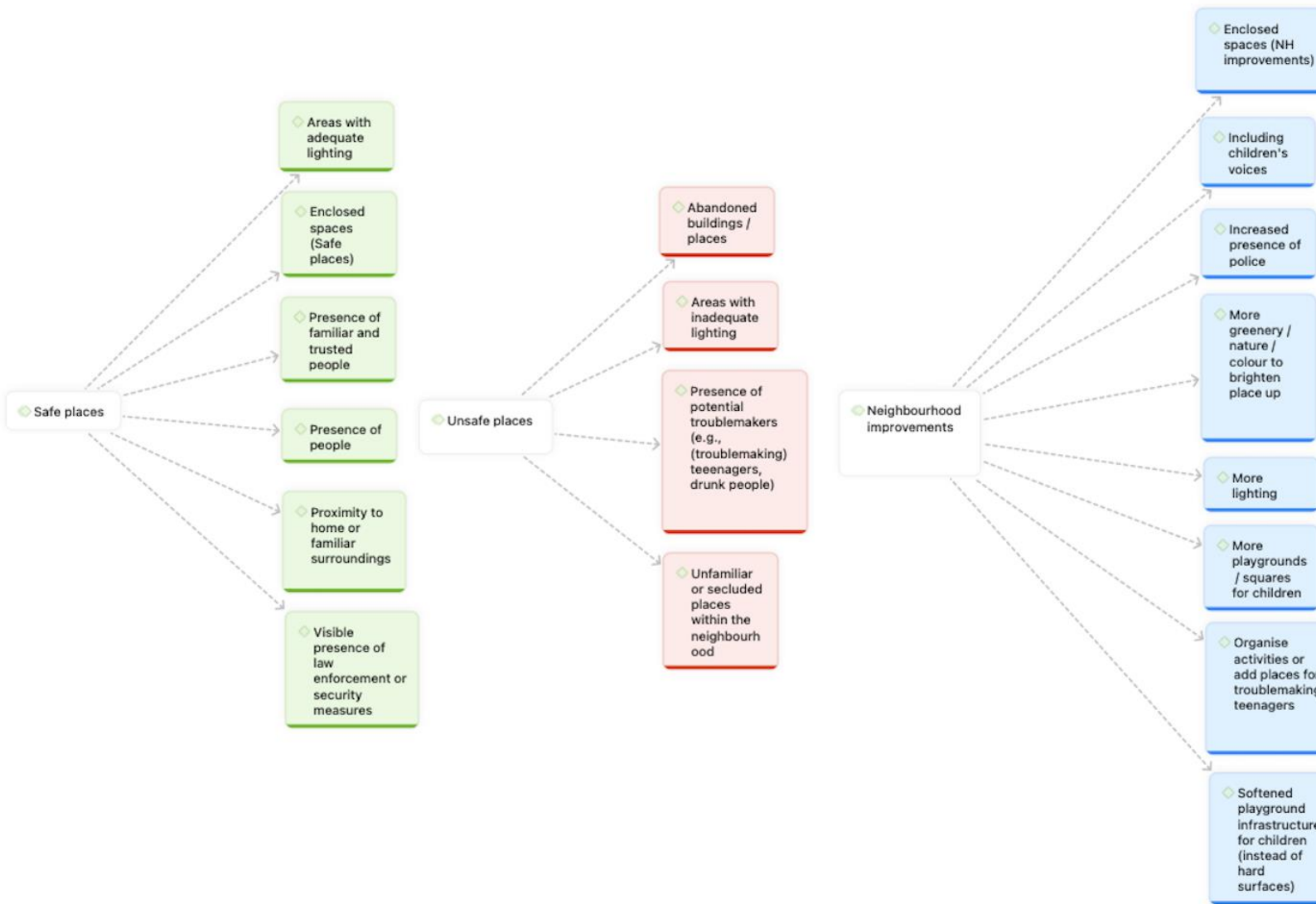


Figure 3: The interview coding scheme

4. Results

4.1 Safety perception of children

The first part of the interview centres on the safety perception of children in PBS neighbourhoods. The purpose of this part of the interview is to understand children's subjective experiences and perceptions about social safety in their specific neighbourhood by interviewing children in PBS neighbourhoods. This sheds light on how interpret social safety in their environment. Coding schemes of "Safe places" and "Unsafe Places" can be found in "8.1 Appendix A Coding scheme". Section 4.2 elaborates on the second part of the interview, focusing on the spatial suggestions made by the interviewed children made to enhance safety in their neighbourhood.

4.1.1 Safe places

Most children indicate that they feel safe in their neighbourhood when familiar and trusted people are present, such as family, friends, and teachers. Child 3 pointed out, for instance, *"I also have family members in the neighbourhood who are often there, and there's also a school across the street, there are often teachers around, and yeah, when you're with friends, you automatically feel safe"*. According to child 9 playing outside with friends gives them a feeling of safety *"When I play with people, I never think about it, but then I also feel much safer when I'm with my friends"*.

Not only do the children mention that having familiar and trusted people around makes them feel safe, but they also frequently mention the general presence of people makes them feel safe. Child 5 remarked, *"because you see so many shops and houses that you know even if my parents don't see me when something happens, I can just step into a shop and get an adult to help"*. Another child, child 10, mentioned that they feel safe *"because you often see people walking, so if something happens, I can immediately go to them, for example, ask for help, if something is wrong"*.

What is expressed as often as presence of people by the children is that they feel safe in their neighbourhood when they are close to home or familiar surroundings. For example, child 4 indicated: *"I feel safe in my street and the parks around me"*, and child 7 said: *"In front of my house"*.

Additionally, children mentioned 'areas with adequate lighting' as a factor in their feeling of safety in their neighbourhood. Child 3 stated, *"because in this street and in the neighbourhood, you don't have a lot of blind spots or alleys, there are hardly any alleys here"*. It is also expressed that enclosed spaces make children feel safe in their neighbourhood, child 7 commented, *"It's a bit closed off there, and I find that more comfortable"*, in reference to this. The last factor mentioned by children that makes them feel safe in their neighbourhood is if there is a visible presence of law enforcement or security measures. Regarding this factor, Child 8 stated, *"There are many neighbourhood police officers"* in the neighbourhood.

4.1.2 Unsafe places

What is most frequently mentioned by the interviewed children as the place where they feel most unsafe in their neighbourhood is when potential troublemakers (e.g., (troublemaking) teenagers, drunk people) are present. Child 1 made the following comment on this, *"Because*

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there are all these drunk people and such walking around, and sometimes people just come up to you, and that just feels unsafe". Child 3 said that wherever the troublemaking teenagers are, the place becomes unsafe: *"I feel pretty safe everywhere, except when there's a place where there are mostly just troublemaking teenagers who curse, break things, or make a mess. It varies, because there's a place that can be nice one moment and ruined the next by those teenagers. So they change places all the time, so wherever they are, it becomes less fun again"*.

Additionally, the children state that they feel unsafe in the neighbourhood at abandoned buildings or abandoned places. For instance, child 2 mentioned that the colours of the buildings gradually change from blue, grey, and red to brown and that it has an abandoned appearance: *"but at the buildings that are blue, grey, and some have a dark red colour on the outside, but if you walk around a bit, you'll see that they start to turn more brownish, as if it's an abandoned street or something"*.

Furthermore, it is indicated by the children that areas with inadequate lighting feel unsafe. Child 2 said that inadequate lighting can make places look abandoned: *"there are long buildings next to them that don't let the sun shine on them, so they seem abandoned because there's hardly any sunlight"*. Child 5 gave a combination of the factors 'abandoned buildings / places', 'areas with inadequate lighting', and 'presence of potential troublemakers' that contribute to an unsafe place: *"when they look a bit dark and rough, you automatically think, I shouldn't hang around here too long because maybe the people who live here are like that too"*.

Another contributing factor, and the final one highlighted by the children that makes them feel unsafe is if a place is unfamiliar or secluded in the neighbourhood. Child 4 commented: *"Sometimes when we play, there's a ping pong table, but that's in a place that's really secluded, like a school or something, but going in there feels unsafe"*. Child 5 explained that they can divide their journey into three sections: near their home, the middle, and near their school: *"In that middle part, I feel less safe because I know I can't go to a teacher, and I can't go to my parents either"*.

4.2 Children's recommendations for enhancing social safety in their neighbourhood through urban planning and design

The outcomes of the interview's second section are shown here. This section covers the suggestions children have regarding how urban planning and design can enhance social safety in their neighbourhood. Coding schemes of the results can be found in "8.1 Appendix A Coding scheme", under "Neighbourhood improvements".

All children interviewed indicate that the neighbourhood becomes socially safer for them if there is increased presence of police and surveillance. For instance, Child 8 commented: *"If there are more neighbourhood officers, enforcement, and such spread throughout the neighbourhood, then it would be safer, and some people might not dare to do certain things"*. And child 10 also indicated this factor for neighbourhood improvement: *"just let a few neighbourhood police officers cycle around"*.

An additional factor mentioned by the children that contributes to the social safety of their neighbourhood is the presence of more greenery, nature, or colour to brighten place up. As an illustration, child 9 said: *"I also like that they've made this schoolyard with green and blue, so there's more nature, not just stone, because I think stone is boring. So, I also think what they could do better is put more nature"*.

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The children also indicate that their neighbourhood will be safer if there are more playgrounds or squares for them. For example, child 3 gave a combination of the factors 'more playgrounds or squares' and 'presence of more greenery, nature, or colour to brighten place up' by saying: *"Maybe they could add a playground. Maybe like they did at that square, painting the walls with nice pictures of flowers"*.

Furthermore, the children argue that having more enclosed spaces in the neighbourhood would increase safety. This means that the squares or playgrounds are closed, so that not everyone can enter. For example, child 6 said: *"I would set up fences around certain areas to designate them as safe spaces for children only"*. Child 7 said in reference to more enclosed spaces: *"That there are also a few people at the entrance, for example, that only children of a certain age are allowed in"*.

A few children also express their want to have softer playground infrastructure (instead of hard surfaces) in the neighbourhood. Child 8, for instance stated: *"I think that some playgrounds should have a grass floor instead of a stone floor because if you fall on a stone floor, you can get hurt"*.

Additionally, the children make it clear that they would like to be more involved in the plans for their neighbourhood. Child 9 commented in reference to this: *"And maybe if they say, for example, yeah we [children] want another square next to our house then they might be able to make that if other children want that too"*. And child 3; *"I would ask those children what they think about it because it's still their neighbourhood where they play, so maybe every month ask, "hey, is there something that could be better in the neighbourhood?" just listen to children's voices"*.

The children that were interviewed also took older children into consideration. They came up with the idea that more activities should be organized for (troublemaking) teenagers, so that they do not hang around in places where younger children play. Child 4 commented, for instance: *"to address one of the big problems, those troublemaking teenagers that we don't really like, so we could actually make a park, like a skatepark for them. So there's a difference between where older kids play and younger kids, and also... For example, we have activities in the neighbourhood, but that's for kids between 10 and 12, but we could do activities for younger and older children. They could organise activities for older children too, so they don't have to hang around and they can do fun things too"*.

The last suggestion mentioned by the children to make the neighbourhood socially safer for them is to have more lighting in areas where children play, to increase visibility. Child 2 commented on this: *"And it would also be better if, for example, there was more light shining on the surroundings, so not something between or two tall buildings, which reduces visibility."*

5. Discussion

5. Safety perception of children

This research has shown that most children indicate that they feel socially safe in their neighbourhood due to the presence of familiar and trusted people, such as family, friends, and teachers. These findings confirm the importance of social networks in shaping children's safety perceptions in their neighbourhood, as Rogers (2012) and Crawford et al. (2017) described in their research: children feel safe and secure in their neighbourhood if there is easy access to friends and a network of extended family, neighbours and parents of friends.

Nonetheless, the results of this study indicate that the majority of the children feel uncomfortable around troublemakers. This is also observed in previous research studies examining children's unease around strangers. Children experience unease when they are around strangers that cause troubles (Crawford et al., 2017; Harden et al., 2000). The children interviewed by Harden et al. (2000) go on to clarify why they feel unsafe, mentioning the possibility of troublemakers, in this case, drunk people or troublemaking teenagers, approaching them.

Additionally, the results of this research on children's sense of safety at places in close proximity to home or familiar surroundings are consistent with earlier research findings (Francis & Lorenzo, 2006; Harden et al., 2000; Scott, 2000). Children, as mentioned by Harden et al. (2000), typically feel safe near their homes and other familiar environments, and they tend to feel unsafe in unfamiliar areas. This is also consistent with another finding from this research, which is that children feel unsafe in unfamiliar or secluded places in the neighbourhood.

Côte-Lussier et al. (2015) concluded that children feel safer in the neighbourhood when there is more street lighting present. This correlates with the findings of this study, because the children indicated that they feel safer in areas with adequate lighting than in areas with inadequate lighting.

5.2 Children's recommendations for enhancing social safety in their neighbourhood through urban planning and design

According to the children interviewed, an increased police presence and more surveillance in their neighbourhood would improve their sense of social safety, as this would provide more supervision and discourage troublemakers. This finding is in line with other research, Van de Veer et al. (2012) demonstrate that the presence of police in typically "unsafe" neighbourhoods reduces residents' fear of crime, and thereby giving them a sense of safety. The children who were interviewed in this research reside in the neighbourhood called Bloemhof, which is seen as having difficulties due to a significant degree of crime and poverty (Gunneweg, 2023). Therefore, the results of this study are consistent with research of Van de Veer et al. (2012), which also adds that, similar to other neighbourhood residents, children in typically "unsafe" neighbourhoods feel safer when the police are present.

Moreover, the presence of greenery improves children's perception on safety in their neighbourhood (Beyer et al., 2014; Côte-Lussier et al., 2015; Jacobs, 1961; Kuo et al., 1998). Therefore, the interviewed children's preference for more greenery in their neighbourhood aligns with existing research highlighting the positive impact of nature on feelings of safety in the neighbourhood.

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The children's expressed wish to have more influence over neighbourhood planning to improve their social safety is in line with the fundamental ideas of child-friendly urban planning and design. With a focus on taking into account the experiences and wishes of children, child-friendly urban planning and design incorporates their voices and uses urban planning and design to give children a better experience in cities (Gill, 2021). Evidently, the interviewed children seem to feel excluded from the neighbourhood planning processes, and they think that if their voices are heard and considered, social safety in their neighbourhood will improve.

According to some of the interviewed children, the neighbourhood would be safer if there were more enclosed spaces. The children indicated that this means not everyone is able to enter the squares or playgrounds since they are closed off or fenced in. However, the ultimate duty of the child-friendly planner and designer, according to Gill (2021), is to remove barriers such as gates and fences and allow children to enter the public area beyond. Additionally, children said they want more dedicated playgrounds or squares only for them, which is also contradictory to fundamental ideas of child-friendly urban planning and design (Gill, 2021).

6. Conclusion

In conclusion, children in PBS neighbourhoods perceive areas with adequate lighting, enclosed spaces, areas with presence of familiar and trusted people, areas close to home or familiar surroundings, and the visible presence of law enforcement or security measures, as socially safe places in their neighbourhood. Additionally, children in PBS neighbourhoods perceive abandoned buildings/places, areas with inadequate lighting, areas with presence of potential troublemakers, and unfamiliar or secluded places, as socially unsafe places in their neighbourhood.

Coming back to the central questions of this research, this research showed that children in PBS neighbourhoods would like to see increased presence of police, the presence of more greenery, nature, or colour to brighten place up, more influence over neighbourhood planning, more enclosed spaces, more lighting, more playgrounds or squares for children, and softened playground infrastructure to ensure that they feel socially safer in their neighbourhood.

A recommendation for further research on this topic is to investigate whether children in less prosperous and less safe neighbourhoods (such as the neighbourhood Bloemhof) have a different perception of social safety in the neighbourhood than people and children from more prosperous and safer neighbourhoods. As demonstrated in this study, children perceive a greater sense of safety when there is an increased presence of police and supervision, while people from more prosperous neighbourhoods actually feel less safe when there is more police presence. Additionally, the children interviewed expressed a preference for more enclosed spaces and more dedicated playgrounds or squares only for children, which is contradictory to earlier research that suggested child-friendly planners and designers should remove barriers like gates and fences to allow children to enter public areas.

Another recommendation for future research is to increase the sample size and include children from various neighbourhoods to enhance generalizability. Additionally, although the study included school-aged children who are more independent and do not receive as much supervision from caregivers as younger age groups, future research can include other age groups of children for improving child friendliness of neighbourhoods. Moreover, future research on this topic can implement individual interviews with children instead of interviews done in pairs, so that the children do not agree with their groupmate.

Finally, based on this research, it is recommended for policy in spatial planning to include children's voices from PBS neighbourhoods in the planning processes. Children expressed in this research that they would like to be more involved in this process. A method that could achieve this, would be research-by-design to further evaluate the outcomes of this study.

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