Understanding high traffic injury risks for children in low socioeconomic areas: a qualitative study of parents' views

N Christie, H Ward, R Kimberlee, E Towner, J Sleney

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See end of article for authors' affiliations

Correspondence to:
Dr N Christie, Postgraduate
Medical School, Daphne
Jackson Road, Manor Park,
University of Surrey,
Guildford GU2 7WG,
Surrey, UK; n.christie@
surrey.ac.uk

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Objective: To gain an in-depth qualitative understanding of parents' views about their children's exposure to road traffic injury risk in low socioeconomic areas.

Design: Focus groups facilitated by a moderator with content analysis of data.

Setting: Focus groups were conducted in 10 low socioeconomic English districts that also have high rates of child pedestrian injury. Research was conducted in community venues within each area.

Subjects: Parents of children aged 9–14 years living in low socioeconomic areas.

Results: Parents believe that children play in their local streets for the following reasons: they like playing out with friends near home; there are few safe, secure, and well-maintained public spaces for children; children are excluded from affordable leisure venues because of their costs; insufficient parental responsibility. For children that play in the street, the key sources of risk identified by parents were: illegal riding and driving around estates and on the pavements; the speed and volume of traffic; illegal parking; drivers being poorly informed about where children play; children's risk-taking behavior.

Conclusions: Intervention programs need to take into account multiple reasons why children in low socioeconomic areas become exposed to hazardous environments thereby increasing their risk of injury. Multi-agency partnerships involving the community are increasingly needed to implement traditional road safety approaches, such as education, engineering, and enforcement, and provide safe and accessible public space, affordable activities for children, and greater support for parents.

In the UK, children from the lowest social class are five times more likely to be killed on the roads as pedestrians than their peers from the highest social class, a relationship known for over 20 years and a differential that still exists today.^{1–2} UK studies have shown a positive association between area-based or ecological measures of low socioeconomic status and child pedestrian injuries recorded on police casualty, fatality, and hospital admission databases.^{3–6} This association has also been reported in other countries.^{7–9}

In 2004, The Neighborhood Road Safety Initiative (NRSI) (<http://www.nrsi.org.uk/>) was set up by the UK Department for Transport as part of the government's road safety target to tackle the significantly higher incidence of road traffic injury in disadvantaged communities. The NRSI involved 14 of the 15% lowest socioeconomic districts with the highest rates of child pedestrian road traffic injury nationally. An additional district was also included because of its high levels of pedestrian casualty. These districts were asked to bid for funding to address child traffic injury in their area. The Department for Transport encouraged districts to adopt holistic approaches to address the multiple causes of road traffic injury in low socioeconomic areas. Previous research has shown that the risk for children in low socioeconomic areas is related to living in older inner-city-style residential areas built before mass car ownership, characterized by long straight roads, which give rise to high vehicle speeds, and with considerable on-street parking. These areas were built before 1960, after which road safety became an integral part of housing development guidance in the UK.^{5–10–12} Children in low socioeconomic households are also more likely to be exposed to these environments, spending more time playing unsupervised or congregating in the street, and are less likely to go to clubs after school compared with their more advantaged counterparts.¹³

Parents have a key responsibility for keeping children safe but also need to allow them some independent mobility in

order to develop social networks and to learn about the external environment through interaction with it.^{14–15} This research was commissioned by the Department for Transport to provide information about parents' perception of risks for children in the neighborhood, how parents feel about children's exposure to risk while playing out in the street, and the accessibility of alternatives such as parks and clubs. The information was needed to inform intervention development for the NRSI and assist in identifying intervention partners.

METHOD

Focus groups were conducted with parents of school children who live in 10 low socioeconomic areas participating in the NRSI. The recruitment criteria were that the parents lived within an NRSI area and had children aged 9–14. This age range was chosen because it captured the important transition years from primary to secondary schools and because this age group is at high risk of pedestrian injury because of increasing independent mobility in the road environment and a range of developmental, behavioral, and social factors.¹⁶ A participant information sheet and consent form were used to recruit participants. The consent form also sought agreement to tape proceedings.

Parents were recruited through residents' associations, via liaison with schools and through other regeneration and community-based initiatives. Participants were offered a cash incentive of £15. A topic guide was developed to elicit discussion on parents' perception of risks for children in the neighborhood, how they feel about children's exposure to risk while playing out in the street, and the accessibility of alternatives such as parks and clubs. Trained facilitators conducted the focus groups using the topic guide. Each focus group lasted about 1 h and was taped and transcribed. Emergent themes were identified using content analysis.¹⁷ Transcripts were read and re-read to identify themes. From

review of the first four transcripts, a coding frame was developed to classify the data into themes. Constant comparison was made between data to classify subsequent data under the existing codes or to develop new codes. The data were examined by a second coder to ensure consistency. The same themes were also identified. These themes were then examined to explore relationships between them.

RESULTS

Sample characteristics

Focus groups were planned in all 15 areas. However, limited resources and organizational difficulties encountered by gatekeepers meant that only 10 areas were included, but these included districts with ethnically diverse populations. The focus groups were carried out in the North West of England and the Midlands. There were 86 participants, on average eight per group, and over 90% were female. One group was conducted exclusively among Sikh and Muslim women, and one group among parents who had at least one child with special needs such as autism, Down syndrome, or deafness.

The key themes are illustrated with anonymous quotes from different participants.

Hazards caused by drivers and riders

The behavior of drivers and riders was a key concern for parents considering their children's safety in the road environment. Streets were perceived to be unsafe for children because of the reckless behavior of young people illegally joyriding around the estates in cars, scooters, and mini motorbikes, posing a risk for children and the drivers and riders themselves:

"...you are not even safe to walk on the paths now because of the bikes and scooters, they cannot go on the road because they are not allowed, so they go on the path" (Group 6)

"...lads around my way are getting away with murder, no tax, no insurance, no helmets" (Group 4)

"They are joyriders, cars get abandoned and set on fire more often now, there was one just the weekend before" (Group 9)

Parents were also concerned that there was a lot of illegal parking in their area especially near schools, which posed a big risk for children:

"Where we live there is nowhere to put cars so they have to park on the pavement in the front so when you are crossing over the road you can't see what traffic is coming" (Group 2)
 "one of the bad things probably about that road is because you have got loads of traffic the kids obviously, like, they have got to get in the road to look, there are loads of cars parked up dangerous to start with if you have to cross." (Group 10)

"Kids are going in between cars ... there have been loads of kids knocked down on that road" (Group 5)

It was also thought by many that the problem of parking arose because of the age of the road layout:

"The streets are very narrow really wasn't made for the amount of cars that are actually on it. You have got cars that have to park on the pavement and obviously kids are trying to play and what have you and shoot out in-between the parked cars" (Group 2)

The speed and volume of traffic was also regarded as a hazard, especially on journeys between home and shops:

"Well ours is pretty bad because it is along street, there is a corner shop and these, we call boy racers, they do 40 to 50 mph you can hear them wheel spinning the lot and you have got kids running in and out of the shop. We have asked for speed bumps but we are told we can't have them. What does it take?" (Group 2)

Drivers were regarded as poorly informed about where children play, and parents felt that there was a lack of "children at play" signs.

Insufficient parental responsibility

Parents felt that other parents did not take sufficient responsibility for their children's safety, with young children staying out late and left in the care of older children for long periods of time:

"where I live little kids, seven year olds, are still out at 10 o'clock at night" (Group 4)

"There was a little lad last night who got knocked down on our road. He was running in front of his mother, he was only about two, she didn't have hold of him and he just darted between parked cars" (Group 10)

Some parents were perceived as being more interested in drinking alcohol than supervising their children:

"Parents around here should put their cans down and spend time with their kids teaching them the green cross code (road crossing strategy), you find that with a lot of parents around here, they just don't care" (Group 8)

Risk taking by children

Children as pedal cyclists and pedestrians were also thought to take risks:

"They ride down the middle of the road on their bikes, pull out in front of the cars, and play chicken on the main road with their bikes." (Group 9)

"...young people especially when they hit their mid teens have an arrogance about them...they challenge you by walking slowly and you might not have seen them and I think 'if you want me to kill you fine, stand up against my car then', they are ridiculous, they play with you as drivers, it is really stupid." (Group 4)

Lack of activities and facilities

Parents felt that children played out in the street because there was little else for them to do and they enjoyed it. Parents did not like them playing on the streets, although they liked them being close to home. They would prefer their children to go to organized activities, but clubs were expensive and inaccessible:

"Nothing at all for the kids to do actually but play in the park or on the street corners or causing a bit of a nuisance. No facilities for the children unless you get your hand in your pocket every single time" (Group 8)

"Facilities in many centres for families are too expensive and you need transport to get there, also it's about safety today, I

am worried about weirdoes. I suppose there is a lack of awareness as to what is going on ..." (Group 4).

There were mixed views on the provision of local play facilities; some parents felt that there was nothing on offer, whereas others felt that there were activities but parents were not aware of them or expected to be told about them. Parents also believed that there were few safe areas such as parks for children. Parks were regarded as inaccessible and at times unsafe. Parents' main concerns about safety in parks related to gangs, bullies, stranger danger, and the environmental threat caused by dogs, alcohol, and drug abuse especially discarded syringes that were littered throughout the neighborhood:

"they just get vandalised, and full of teenagers drinking cider and whatever" (Group 8)
 "for druggies and boozers" (Group 2)
 "I counted 20 syringes on the way round to the shop" (Group 10)

Parents' views on solutions

Parents felt that the streets could be improved through engineering and enforcement, although there were mixed reactions to traffic-calming measures. Some felt that traffic calming should be implemented in their area, but others thought that drivers circumvented the safety value of speed humps:

"It's the same all over [the area] if they get the car they are not bothered where they will drive it. You put speed bumps up, but it doesn't stop them, because they just fly over it" (Group 6)

It was also felt that the police could have a greater enforcement role in the neighborhood. They were perceived as spending too much time in cars rather than integrating with the community:

"The police should be on this estate a lot more catching these people whose driving stupid on the roads and you never see a police van, never" (Group 10)
 "I think more police in schools who would be more educational for the kids, get them to know the dangers get them to know dangers with cars, stranger danger, the whole thing. So the policemen are more familiar and not hiding in cars" (Group 4)

Parents felt that parks could be improved by making them safe and secure by having wardens, fencing, improved and better-maintained facilities, and being more accessible through better crossings and lighting. There was a general feeling that the neighborhood needed to be more secure. It was felt that activities after school needed to involve the community and be better publicized, cheap, and accessible, especially for older children. Parents thought that both they and their children needed to be consulted about activities that children would like to do and be more involved in providing road safety advice for their children:

"Sometimes just need people to get involved...support the kids a bit more" (Group 2)

Parents felt that children would like to walk and cycle more but would like more crossings, better cycle paths (that do not

stop abruptly), and better street lighting. There was some concern about bicycle theft. They would also like better public transport with routes to where children want to go, more frequent, reliable buses, cheaper fares, and seat belts:

"you never know when the bus is coming and when it's not" (Group 1)
 "my lad he would love to go on a bus he would like to go on his own. One, they would have to be more frequent and, two, they would need to be more cost effective because they are expensive the journeys you do and the other thing is there is only a driver so they are not safe" (Group 10)

DISCUSSION

Main findings

This research was conducted in low socioeconomic neighborhoods where road traffic injury is a major cause of health inequality.² Previous research has suggested that children in disadvantaged areas are at greater risk of injury when they play in streets in hazardous environments.⁵⁻¹³ This study reveals the views of parents about children's play, the risks they face, and what strategies they feel will reduce children's exposure to risk. This research suggests that parents feel that children play in their local streets because:

- They like playing out with friends near home
- There are few safe, secure, and well-maintained public spaces for children
- Children are excluded from affordable leisure venues because of their costs
- There is insufficient parental responsibility

For children that play in the street, the key sources of risk identified by parents were:

- Illegal riding and driving around estates and on the pavements
- The speed and volume of traffic
- Illegal parking
- Drivers being poorly informed about where children play
- Children's risk-taking behavior

Parents believed these risks could be addressed by increasing enforcement—to ensure the safety and security of neighborhoods on the roads and in public spaces—and providing accessible (in terms of pedestrian and cyclist infrastructure and public transport) and affordable facilities for children's recreation.

Few studies have addressed the issue of parents' perceptions of children's road traffic risk in low socioeconomic areas using qualitative methods. Other quantitative studies have shown links between socioeconomic status and parents' perception of availability of public play opportunities, public transport, lighting, and pedestrian crossings, with those in low socioeconomic groups more likely to agree that there is poor provision.¹⁸ Studies of play also show that parents in low socioeconomic areas are more likely to perceive a lack of play facilities in their neighborhood compared with those in high socioeconomic areas.¹⁹ Changing the environment is undoubtedly important; the safest countries for child pedestrians are those that provide extensive traffic calming in residential areas, especially around schools, and have outdoor play provision for children.²⁰ However, this study suggests that the threat of illegal and antisocial behavior needs to be addressed before parents

Key points

- Children in the lowest socioeconomic group are much more likely to be killed as pedestrians than their wealthier counterparts.
- Playing or congregating in the street is a high-risk activity for children living in low socioeconomic areas, where traffic environments are particularly hazardous.
- Parents feel that the main hazards that children face in the street are the illegal and antisocial behavior of drivers and riders and the speed and volume of traffic.
- Parents living in low socioeconomic areas feel that children play out in the street because there are few accessible and affordable alternative activities, and public spaces are ill equipped, poorly maintained, and neither safe nor secure.
- Intervention programs need to adopt a holistic partnership approach, providing safe, secure, and accessible alternatives to the street and improving road safety through engineering, enforcement, and education to lessen the effects of socioeconomic disadvantage.

feel happy about their children playing outside, whatever the provision.

Strengths and weaknesses

This study deliberately sought the views of parents living in low socioeconomic areas. In adopting a qualitative approach, we had an ideal opportunity to explore, in depth, parental understanding of their children's safety and risk. This research engaged a large number of participants, recruiting hard-to-reach groups, ethnic minority groups, and parents of children with special needs. Although few men participated, there were no discernible differences between the issues raised by male and female participants.

Although the voluntary and self-selecting sampling technique may mean that we were more likely to engage with families that are less excluded than others, our experience of using community gatekeepers suggests that we have been able to include a broad range of families from various sociocultural backgrounds from different districts. Given the sample's diversity, the identification of consistent themes across different districts suggests that the issues raised in this research are extremely relevant to low socioeconomic neighborhoods across the UK.

IMPLICATIONS FOR PREVENTION

This study suggests that, for children living in low socioeconomic areas, interventions need to consider not just the immediate risks in the traffic environment but also the factors that lead children to play out, or congregate, in the streets. Key partners for change are not just road engineers but youth workers. Youth workers in particular could be encouraged to embrace road safety agendas when they work with children in public spaces and consider how they may provide more accessible and affordable activities for local children. Local health services should be encouraged to provide more information to ensure that they are able to promote parental educational awareness perhaps linking with road safety officers. However, these softer measures will not work unless

there is consistency in law enforcement. A clear message from parents is that they witness poor driving behavior and illegal activities, which easily undermine people's willingness to embrace safe behaviors and lead young people to avoid public spaces. There is also considerable scope for community safety partnerships to consider effective ways to use their resources to address behaviors that lead to exclusion of young people from public spaces; community partnerships could be encouraged to adopt public spaces such as parks. Partnerships between service providers and communities need to address local issues such as joyriding and drug abuse. Finally, what our work also reveals is that parents believe that their children would like to be part of the solution and be active participants in community solutions to address the issues of risk and safety.

Authors' affiliations

N Christie, J Slaney, Postgraduate Medical School, University of Surrey, Guildford, Surrey, UK

H Ward, University College London, Gower Street, London, UK

R Kimberlee, E Towner, University of the West of England, Bristol, UK

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