



COVER SHEET

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PARENTAL PERCEPTIONS OF LEGITIMATE REASONS TO RELAX THEIR SEATING RULES FOR CHILDREN IN CARS

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ABSTRACT

One simple, cost-effective action to improve children's safety in cars is to restrain them in the rear seat whenever this is possible, as this has been shown to be about 35% safer than sitting in the front in the event of a crash. Moreover, seating position and restraint use have an interactive effect on safety: wearing a restraint and sitting in the rear provides the best protection of all. Despite this fact it appears that a high proportion of children are still travelling in the front seats of cars in Australia. Changing this behaviour presents a challenge as we have little information about the factors that influence parental decisions regarding seating position for children. Focus group discussions were held with parent-drivers (n = 33) of children (12 years and younger) in urban areas of Brisbane to explore these factors. Findings were that parents usually had firm rules that children should always sit in the back. However, there were occasions when parents relaxed these rules for what they saw as legitimate reasons. Amongst these were: perceptions of the trip as short, giving children a "treat", and management of behaviours such as sibling fights and tantrums.

INTRODUCTION

As with other highly motorised countries, road trauma is still the leading cause of death and disability for Australian children 1-14 years old (Al-Yaman, Bryant & Sargeant, 2002). One effective way of combating this has been the implementation of legislation requiring that children use restraints. Moreover, mandatory top tethers on rear facing infant restraints and on forward-facing child restraints suitable for younger children has been shown to provide very high levels of safety for children using them. Compliance with legislation also appears to be high, with surveys showing around 90% of child passengers wear a restraint of some kind (Road Safety Task Force, 2001). This suggests that parents have received and acted on the message to buckle children up. Further efforts to increase the level of compliance may prove costly and ineffective. In order to make further gains in children's safety as passengers, other avenues must be sought.

One simple, low-cost method to improve children's safety in cars is to restrain them in the rear seat rather than the front whenever this is possible as this has been shown to be safer. US studies have established that the risk of injury or death is reduced by about 35% for passengers sitting in the rear seat of a vehicle without airbags compared to the front in the event of a crash (Braver, Whitfield, & Ferguson, 1998). As many of the vehicles in the Australian fleet do not have passenger side airbags, these figures are more comparable to the Australian situation. For children, analyses of data from large US crash-databases such as the Fatality Analysis Reporting System have revealed that restrained children sitting in the front seat account for a much higher percentage of child fatalities than those sitting in the rear seat (Starnes, 2005). Australian studies have similarly demonstrated an elevated risk for children in the front seats of vehicles. One recent in-depth study of crashes involving injuries to children aged 2-8 years presenting to two hospital emergency departments found that children who were sitting in the front seat of the vehicle were two and a half times more likely to suffer serious injury than those children occupying rear

seats (Brown, Bilston, McCaskill, & Henderson, 2005) Other international work has shown that, while the effect of seating position is slightly smaller than that of appropriate restraint choice for children, seating position and restraint use are interactive in their effect on safety. Children wearing a correctly fitting restraint and sitting in the rear seat are the most optimally protected (Durbin, Kallan, & Winston, 2005).

Exposure of children to sitting in the front seat of a vehicle has been shown to be high. US studies have estimated that 25-40% of vehicles carrying children have one or more child in the front seat (Ferguson, Wells, & Williams, 2000; Segui-Gomez, Glass, & Graham, 1998). This proportion may be even higher in Australia where a recent observational study found that 60% of vehicles (n = 1295) carrying child passengers had a child (estimated as <12 years) sitting in the front seat (Lennon, 2005). This suggests that there may be substantial safety benefits from encouraging parents to restrain children in the rear seats of vehicles whenever this is possible.

In order to influence parents' safety choices, a sound understanding of the factors that influence parents' decisions about where to sit their children when they travel is needed. Yet we have little information about what parents see as critical to these choices or what their experiences of barriers to change might be. Some studies have suggested that parents' seating choice is not primarily based on safety knowledge, as parents seem to know that the front seat is less safe than the rear in a crash (Agran, Anderson, & Winn, 2004). Similarly, these choices do not seem to be based on whether there is room in the rear seat. Observational studies in both Australia and the US have reported that around 80% of vehicles with children in the front seat have at least one available seat in the rear (Lennon, 2005; Segui-Gomez et al., 1998). Since placing children in the rear seat does not involve extra cost, economic factors do not seem to provide an explanation either.

Accordingly, this study sought to identify factors affecting parents' decisions about children's seating location and their perceptions of the barriers to using the rear seat for children when travelling.

METHOD

In order to access psychosocial factors affecting parents' decisions, a qualitative approach was adopted. Focus groups were used to collect material as this method allows exploration of participants' reasoning, beliefs and views on topics in a richer and more personal way than can be achieved through surveys or observations (Kitzinger, 1995; Krueger, 1994). Focus groups have the additional advantage of allowing group interaction to uncover social dimensions of a phenomenon that are often not as accessible through individual interviews (Krueger, 1994).

Participants were recruited using two methods. Shoppers in centres primarily providing food and grocery items, were approached in open-air car-parks. Screening criteria were that participants had to be parents of children (aged 12 years and under) who regularly drove their child(ren) in a passenger vehicle (with a rear seat) at least once per week. Five groups were held with participants recruited this way.

In order to obtain a greater number of medium and lower income participants, parents were also recruited from a school in a lower SES area. This area was the same as one of

those used for a previous observational study focussing on children's seating positions in vehicles (Lennon, 2005). The school Principal gave permission for the researcher to advertise the study to parents in the school newsletter. Interested parents meeting the inclusion criteria were invited to contact the school and leave their details. One group was formed from the parents who responded.

Groups lasting about an hour were scheduled during both day and evening time slots in order to allow both employed and non-employed parents to participate. Discussions were transcribed. Before starting the discussion, the purpose and the procedure for the study were explained to participants and written consent to recording was sought. Participants were offered a \$30 gift voucher in acknowledgement of their time. Ethics approval was granted by QUT's University Human Research Ethics Committee.

While the research interest in this study was centred on parents' perceptions of barriers to placing their children in the rear seat, the discussions began more broadly. As well as encouraging discussion, questions were designed to elicit the safety concerns uppermost in parents' minds. Probe questions were then used to elaborate the themes that emerged in each group as well as to focus the discussion on the research areas relevant to the research focus ie. parents' opinions about allowing children to sit in the front seat of vehicles, barriers to getting children to sit in the rear seat, and suggestions or strategies to overcome these.

Theme analysis (van Manen, 1990) of transcripts was used, with storage and display of the material carried out using QSR NVivo 2.0© (QSR International, 2002).

FINDINGS

Demographic characteristics

Six separate groups were held, consisting of 4 to 9 parent-drivers, all facilitated by the author. A total of 33 parents (29 mothers and 4 fathers) participated. Consistent with the population from which they were drawn (urban Queensland), most of the parents were Caucasian, aged between 30 and 39 years (18/32), had at least some post secondary education (24/32) and were full time parents (14/32). Family income ranged from under AUS\$30,000 to over \$100,000 with half (15/30) of the parents who responded to this question indicating family income greater than \$60,000 per annum, 30% (9/30) between \$31,000 and \$60,000 and the remaining 20% (6/30) indicating annual family incomes of \$30,000 or less. Although most of the parents had 2 or 3 children, family size ranged from 1 to 5 children. Parents were not asked to indicate family form. However, information from the discussions revealed that there were at least two step families and at least three sole parent families included in the groups. Ages of the children in these families ranged from 1 year old to adult (over 20 years) though in accordance with the screening criteria, at least one of these children was aged 12 years or younger.

A number of themes in relation to the study aims were identified, and these are described further below.

Child restraints

The first issue raised in five of the six groups was about making sure all children were restrained properly. Parents were very concerned that their children were in a restraint and

remained in it for the duration of the trip. However, they also expressed concern about whether restraints fitted properly and whether they were actually as safe as they were supposed to be. Some parents seemed to mistrust child restraints somewhat, referring to the extent to which restraints could be moved around in the vehicle once they were supposedly secured. These concerns were mostly about the restraints for children who had outgrown the rear-facing restraints and seemed to arise for participants when children transitioned from one type of restraint into the next as illustrated here:

“although it’s [approved forward-facing child restraint] attached properly...you can grab the side of it and you can wriggle it around and they [registered fitter she consulted] say it’s fine but to me...I just wonder how safe they’d be in a seat of that sort...I’d like it to be firmer in the car” (mother of 4, group1).

Other parents spoke of their children’s ability to wiggle out of the shoulder portions of their restraints once they reached a certain age (“doing the Houdini”, mother of 4, group 3), and of their concerns that restraints might not work if children are not wearing them properly:

Parent 1: Some kids, they get tired of sitting back and they lean forward, which compromises the whole seatbelt arrangement

Parent 2: Yes. My daughter pulls her arm out [of her restraint] and lays over the-you know [armrest]. She pulls down the centre thing [armrest] and uses that as a pillow and she’s completely [out of the sash] (group 4).

Parents also gave quite a lot of detail in terms of the actions they had taken to ensure children wore their restraints and that there was as little fuss about this as possible. Accordingly, there were descriptions of playing games where children’s toys were strapped into restraints of their own, seatbelt covers to make the straps more comfortable, and appointing older children as the “seatbelt monitor” to ensure that everyone fastens their restraints before setting off. All the parents in these groups insisted that children wear their restraints all the time, and they all had contingency plans that included stopping the car when children either refused to wear them or undid them during the trip.

Family rules and reasons to relax them

Generally parents were aware of the front seat as more risky than the rear. In response to this, parents indicated that they set rules forbidding their younger children from sitting there. Some were also very emotive about this:

“we have a thing in my family: we call it [front seat] the death seat” (mother of 4, group1).

The age specified varied from as young as 5 years to as old as teenage. Most were firm about where children sat:

“you have to be in the back until you’re 8 [years old]” (mother of 3; group3).

However, there was an unexpected belief among parents that children were *legally* restricted from sitting in the front.

There were a number of reasons that parents said they or other parents sometimes relaxed their seating rules and allowed their children to sit in the front, even though they recognised the extra risk. These have been grouped into three main types as below.

Social or psychological reasons,

Parents spoke of the way that children pleaded to sit in the front seat because they regarded it as a special “treat” as illustrated here:

“[my niece] just begs to go in the front because that’s what her kid cousins do...It’s just a treat to them. It’s just- sitting in the front!” (mother of 2, group 4)

Short trips, such as those to school or to the local shops, were also seen as somehow less subject to the normal rules and parents were more likely to let children sit in the front under these circumstances:

“I know sometimes I relent and that’s through little kid going, ‘Can I sit in the front seat?’ [and I say] ‘Oh, it’s only down the road; go on, off you go.’ And most accidents happen down the road. I know that.” (mother of 1, group 2)

And

“...they’re [my children] only allowed to sit in the front coming to school and that’s all, or maybe if you’re going down to Woollies, but nothing where you’re doing any sort of speed. They’ll fight and argue but they’re not allowed.” (mother of 2, group 6)

Some parents reported that they had relaxed their rules in order to support the child’s maturation as in this example:

“there’s a sense that your kid is growing up and you kind of want to - it feels good when they’re taking their little steps like that and, I guess, subconsciously you weaken” (father of 3, group 4)

Child management issues

A second category related to managing children’s behaviour. Though parents in every group reported that having more than one child in the rear seat could result in fights, some were able to ignore these, while others found the effect so distracting that they were prepared to move one child into the front seat to resolve the issue. One parent described it as follows:

“They sit there pulling each other’s hair and fighting and scratching each other and I think, in the end, “Just get in the front” and then it’s quiet, you know, and that’s quite peaceful driving then. You’re not...[distracted]” (mother of 2, group 2)

Child tantrums were also likely to result in some parents managing the situation by moving the child in order to keep better control or to avoid a struggle:

“He gets his own way [about sitting in the front], but only on short trips he’s allowed to sit in the front, [otherwise] we’d never hear the end of it. He just goes on...he’d destroy the car!” (mother of 5, group 3)

Physical constraints

For parents with more than two children, the difficulty of fitting all the required restraints into the rear seat led to allowing children to occupy the front seat. This was particularly acute for those who had smaller cars, though having children who were using larger restraints was also cited as problematic:

“well, I figure there’s no room in the back of my car with the two big seats. So if [my older daughter] has to go in a booster seat, the three of them won’t fit. I know that.” (mother of 2, group 2).

Sometimes parents were forced to allow children in the front as a result of child car-sickness, as here:

“Yes, my stepdaughter used to [say she felt sick]. She actually got into the front seat with her father and I had to get in the back one day and I was furious but then I thought, oh, I didn’t want vomit all over the car so I just did it.” (mother of 4, group 1).

Parental perceptions of the barriers to using the rear seat for children

Parenting style.

There were a variety of responses parents gave when asked to think about what made it difficult for themselves and other parents to get children to sit in the rear or to stay there as they got older. As reported by others in relation to booster seats, (Agran et al., 2004; Rivara et al., 2001; Simpson, Moll, Kassam-Adams, Miller, & Winston, 2002) parenting style was identified as a barrier to this. Parents recognised that for some families, safety was subject to rules that were not negotiable. However, in other families, rules were more flexible:

“[in some families] parents just let their children make the rules...there are times when you do that but there’s times when their safety is at risk [then] you just make the rules” (mother of 4, group1).

Social pressure.

Parents also identified social reasons, including pressure from their children as well as from other adults with different rules, as making management of rear seating more difficult for them. For instance:

“...when they get to a certain age and their other friends are allowed in the front, then it becomes, ‘How come they get to and I don't and I'm in the back?’ ”

Some parents responded to this by reaffirming their rules, though in doing so, some reported that it was a constant struggle to maintain their authority. Other parents said they had eventually decided that the struggle was not worth it and had begun allowing their children to sit in the front.

Perceptions of risk.

Risk perception, particularly parents’ judgements about the likelihood of having a crash, also appeared to present a barrier for some parents in maintaining consistent seating position rules. For these parents it seemed that the very small chances of crashing or of being injured were difficult to justify and were not seen as a sufficient reason to impose a seemingly arbitrary rule. One parent expressed it this way:

“My daughter says “well you do it, so why can't I?” [If I said] “its not safe” [she would just say] “well you do it”. What do you say then?” (father of 4, group 3).

DISCUSSION, IMPLICATIONS and CONCLUSION

Parents in these groups had apparently absorbed the message to buckle their children up and this is evident in their primary focus on the use and fit of child restraints.

Though not the foremost issue for them, front seating was a concern for parents and they had given the matter thought. As indicated, the most common response was to set a family rule about what age or stage children should be before they could be permitted to sit in the front seat. However, parents relaxed the rules for a variety of reasons and these have important implications for any attempts to encourage parents to keep children in the rear seat of cars more consistently and until children are older.

Though parents were aware that car travel involves risk and that the front seat carries more risk than the rear, some parents were prepared to allow children to travel in the front seat

on short trips or as a treat. This was the case even though they claimed, somewhat paradoxically, to recognise that short trips were just as risky as longer ones. This suggests that interventions should target risk perception in particular and endeavour to assist parents to reconcile their stated appreciation of risk with their day to day choices for their children. Evidence from recent studies suggesting that short, routine trips, such as school travel, are the most likely to result in injury to children (Chen, Durbin, Elliot, Kallan, & Winston, 2005) may be useful in challenging these inconsistencies. However, such evidence needs to be presented within a context of affirming parents' current use of rules and supporting them to counter arguments to abandon these prematurely. In addition, parents' concerns to ensure good restraint fit also need to be affirmed at the same time as providing them with reassurance about the safety benefits of different restraint types.

The findings from this study indicate that the period of early school-age (4-8 years old) may be the optimal time to implement behavioural intervention with parents as this is the period most likely to coincide with increased pressure on parents to relax their car safety rules and thus when they are most in need of support and affirmation of their safety choices. Having a better appreciation of these issues can help inform the design of effective interventions.

Legislative change might also assist parents in their attempts to protect their child passengers. Currently the Australian Road Rules do not specify the type of restraint or the seating position for children over 12 months of age. However, all the parents in these groups believed that children were forbidden from travelling in the front seat, though their beliefs about the age at which this ceased varied. Their apparent expectation of this, and the surprise expressed by those who had discovered otherwise, suggests that a positive climate for such legislation already exists: parents said they would welcome clearer guidance in the form of uniform rules on where children should sit. Clearer legislation might also help parents to counter some of the pressures they reported experiencing to allow children into the front seat.

Parent reports of the difficulty in fitting more than two child restraints into small and medium sized cars are a matter for concern, particularly if the message to restrain children in the rear is to be a practical one for parents to comply with. While parents can have some influence over fit in terms of the choices they make when they buy restraints, manufacturers and legislators have a much greater level of influence over this aspect of vehicle safety. Manufacturers of both restraints and vehicles should be encouraged to consider design issues in relation to the use of multiple restraints in the rear seat. Design rules and legislation may also need to be reconsidered in order to render the rear seat environment more child and child-restraint friendly.

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