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UM-HSRI-81-44

INFANT RESTRAINT USABILITY FOLLOW-UP

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Prepared for  
Insurance Institute for Highway Safety

September 1981



## INFANT RESTRAINT USABILITY FOLLOW-UP

### Method

A follow-up questionnaire was sent to the families who participated in the study on infant restraint usability when their babies were from 15 to 17 months old. Those who did not respond to the questionnaire were interviewed by telephone. Information from 24 of the 27 families was eventually obtained.

### Results

Most families were quite satisfied with the restraints they had chosen. Eight, however, had significant complaints. Of the 12 respondents who had selected the Century Trav-L-Guard, four were having problems with their children opening the Waterbury buckles, and two of these children actually disengaged the loops. (These buckles were replaced at no cost by the manufacturer with Indiana Mills pushbutton assemblies.) Another family found the upholstery to rip easily and had to repair it.

In four cases, the angles of the restraints' seat backs were found to be not upright enough for the preference of the child passengers. Two of these children were using the Kantwet Care Seat. Although this angle is affected to some extent by the softness and angle of the vehicle seat itself, we had previously received complaints from other users specifically about the Care Seat. Restraint manufacturers in general, however, should be aware that, once children sit up and face forward, they apparently want to sit quite erect.

One family with a fairly large child complained that the Cosco Safe & Easy was too narrow for him. The restraint was replaced with a Century that had been equipped with a pushbutton buckle.

A general aggravation and a source of some non-use were the difficulties associated with switching the restraints from one car to another. Of the 13 families who reported occasional current non-use, seven attributed the non-use to the two-car/one-restraint syndrome. Most families would merely forget to leave the restraint with the sitter,

for instance, when leaving the child. Others would find themselves in need of going out, but the restraint was in the car being driven by the spouse. Five of the seven families reported putting their children in seatbelts when the restraint was not available. The other two children rode unrestrained. Two of the 11 families who reported they "always" used their child restraint also identified restraint installation and switching between cars to be difficult.

Among the remaining occasional non-users, three said that on short trips their children were put in seatbelts instead. One family, however, regularly went to a nearby church with eight people in a six-passenger car, and thus the two youngest traveled on laps. Another mother, whose child regularly unfastened the Waterbury buckle, put her in a seatbelt whenever there was no other passenger in the car to resnap the child restraint buckle. Finally, one father, who was not a seatbelt user himself, used the child restraint only in the front seat, but in the rear seat the child rode unrestrained.

In the original infant study, we found that over three-fourths of the parents put their rear-facing babies in the front seat when driving alone with them, and that half the babies were still in front when other passengers were in the car. In contrast, nearly 80% of the toddlers (19 out of 24) regularly traveled in the rear seat.

When asked when and why the children were switched from rear- to forward-facing, most parents could remember the age, but fewer than half reported the weight. Of the 18 ages reported, 12 were six months or less, the youngest being three months. Of the 11 reported weights, three were less than 17 pounds (the generally recommended weight), and we might expect that many of the unreported weights were also on the low side. Considering the 50th percentile weight for boys at six months is just over 17 pounds, it is quite likely that many of the reported weights were inflated and that children are frequently being turned to face forward too early. One child, however, whose parents had selected the GM Infant Love Seat, was still in it facing rearward at 17 months. The father reported that she was a very small baby.

Statements given regarding reasons for switching to forward-facing

often implied that finally being able to turn the child around was a positive milestone. We have encountered this somewhat inappropriate enthusiasm among other parents with whom we have dealt. Half of the responses indicated the child needed more leg room, and nearly as many referred to greater ease of use and to the child's need to see out. One mother responded that, although her child was not yet large enough she just thought her daughter should face forward.

### Discussion

The Waterbury buckle does seem to cause problems for parents, even when they have been diligent about keeping their children restrained. The same problem does not seem to exist, at least for children under 18 months, with pushbutton buckles, even though they are of the soft pre-1981 design.

Angles of the restraint backs vary, and children seem to prefer the more upright designs, at least while they are awake. Shoulder room also varies among restraints and can be critical as early as 15 months. We wonder what anthropometric data, if any, has been used to design restraints to fit real children. We know from other experience that most children physically outgrow their restraints long before they have reached the height and weight limits advertised.

Restraint installation and removal occurs more frequently than expected, and the necessary procedures are irritating to most parents. Although considerable thought is going into making harness/shield systems more convenient, methods of attaching restraints with vehicle belts also need to be addressed.

Parents do not seem to be taking full advantage of the injury protection capabilities of convertible restraints in that they are overly anxious to turn their babies around to face forward. The issue is partially one of convenience. A forward-facing restraint is easier to negotiate in a back seat than a rear-facing one, and there is a strong preference for putting a toddler, as opposed to an infant, in the back seat. On the other hand, comments from these and other parents indicate a general misconception about the function of rear-facing restraints. They

speaking of when the child should face forward, rather than when he can safely be allowed to do so, the implication being the restraint will not work rear-facing after the child reaches a certain size. This misconception needs to be addressed both in public information materials and in the instructions provided with each child restraint.

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