Factors Influencing Booster Seat Use and Non-Use Among Parents of 4- to 8-Year Old Children In Winnipeg, Manitoba

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Background

- Motor vehicle collisions remain the leading cause of morbidity and mortality among children.
- Despite a large body of research demonstrating the effectiveness of booster seats in reducing injury and death among children, rates of booster seat use among 4 to 8 year old children remain unacceptably low.
- Children between 4 and 8 years of age and less than 4 feet 9 inches tall require a booster seat for optimal protection against the risk for injury and death in motor vehicle collisions.

- In order to develop more targeted intervention strategies, a greater understanding of the factors associated with booster seat use and non-use is clearly needed.

Objective

To examine factors related to the use and non-use of booster seats among parents of 4 to 8 year old children in Winnipeg, Manitoba, Canada.

Methods

Parent Telephone Survey

- A random-digit computer assisted telephone interview (CATI) was conducted with parents of children 4 to 8 years of age in Winnipeg, Manitoba.
- The sample consisted of English-speaking adults who were parents of at least 1 child in the booster seat age range (4-8 years).
- Parents asked to respond to a series of questions regarding general demographic information, patterns of booster seat use, and factors that influence booster seat use and non-use.
- A total of 136 parents, reporting on 180 separate 4-8 year old children, were surveyed using the CATI procedure.

Sample Characteristics

- *Parents:* Mean age 37.8 years; 69.1% female; 83.8% married; 80.8% completed college/university degree.
- *Children:* 45 (25.0%) were 4 years old; 33 (18.3%) were 5 years old; 39 (21.7%) were 6 years old; 35 (19.4%) were 7 years old; and 28 (15.6%) were 8 years old at the time of the survey.

Data Analysis

- Data analysis involved descriptive statistics and bivariate Chi-square tests.

Results

- Parent-reported booster seat use was high among 4 to 6 year old children (approximately 90% “Always” used); however, only 63% of 7 year olds and 41% of 8 year olds were “Always” restrained in booster seats.
- As child age increased, booster seat use significantly declined (χ^2=33.126, p < .001).
- No other sociodemographic factor (parent/ child gender; parent age; total number of children; education; income) was significantly associated with booster seat use/non-use.
- The most cited reasons for “Never” or “Rarely” using a booster seat centred around the belief that the child was either too big (30.6%) or too small (20.4%) for a booster seat.
- Non-users also reported that they would be more likely to use booster seats if they were required by law (81.0%); they had more information about safety benefits (66.7%); and if everyone used them (42.9%).

Reason for Never/Rarely Using Boosters (*n*=49)	% (*n*)	Mean Child Age
Child is too big	30.6 (15)	7.33
Child is too small	20.4 (10)	4.40
Child still uses forward-facing child seat	10.2 (5)	4.40
Parent prefers harness/seatbelt	10.2 (5)	6.00
Child refuses to use	6.1 (3)	6.67
Not in all cars	6.1 (3)	5.33
Car seat built-in to vehicle/ Not required in vehicle	6.1 (3)	6.67
Parent doesn’t believe necessary	4.1 (2)	8.00
Parent hasn’t purchased yet	2.0 (1)	5.00
Don’t know/No response	4.1 (2)	8.00

Primary Restraint Type	% (*n*)	Mean Child Age
Forward-facing child seat	21.1 (38)	4.89
Booster seat	63.9 (115)	5.75
Seatbelt only	14.4 (26)	7.50
Don’t know/No response	0.6 (1)	6.00

Conclusions

- The marked decline in booster seat use among parents of 7 to 8 year children suggests that interventions targeted at increasing booster seat use among older children are clearly warranted.
- Public awareness campaigns aimed at clarifying misconceptions regarding age and size requirements along with information on associated safety benefits would likely have a positive impact on rates of booster seat use.

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