

Attitudes of Hispanic versus Caucasian parents towards booster seat usage¹

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ABSTRACT

Most child deaths caused by lack or improper use of child safety seats are preventable. Ollie Otter program of Tennessee has been successful in creating awareness among Tennessean parents for the use of booster seats for K-4 age children. The program identified a need for further communication with parents of Hispanic origin. During the past decade in Tennessee, the Hispanic population has been increasing such that today Hispanics represent four percent of the state's population and six percent of all K-12 students. This study surveyed Middle Tennessee's Hispanic parents to analyze opinions about booster seat and seat belt safety in conjunction with behavior. Researchers have explored attitudes toward and use of these booster seats in relationship to cultural background, including Hispanic versus Caucasian parents' comparison. This study's findings indicate the need for modifying safety beliefs and practices to increase the use of booster seats and seat belts.

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INTRODUCTION

Children's safety seats can substantially reduce the death risk among children. Unfortunately, adults do not properly use child restraint systems; the misuse rate is as high as 72 percent (Center for Disease Control and Prevention, 2011). Although they are supposed to be restrained in a car seat or a booster seat, 86 percent of children up to age 8 use safety belts instead (Ebel et al., 2003; Philbrook et al., 2009). Eby (2005) found that booster-seat use was less than 9 percent for 4-8 year olds. As a result, risk of serious injury doubles (Bingham, 2006). Moreover, misuse has been found to be higher based on cultural background. According to Baker et al. (1998), "Death rate per billion vehicle-miles traveled was 60 percent higher for Hispanic children aged 5-12 compared to non-Hispanic white children," (cited in Greenberg-Seth et al., 2004).

Using booster seats rather than seat belts can lower children's crash injuries by 45 percent (O'Donnell, 2011). However, one study found that "many [parents] believed that booster seats served no real safety purpose and simply boosted up the child" (Simpson, 2002, p. 732). According to The Insurance Institute for Highway Safety, "A lot of parents don't understand that the purpose of the booster seat is to ensure the vehicle safety belts fit the child, ..." says McCart of The Insurance Institute for Highway Safety (O'Donnell, 2011, p. 1A). Furthermore, according to Ebel et al.'s study (2003), "many parents incorrectly believed that their child has outgrown the need for a booster seat" (p. 326). In fact, "Nearly two thirds of all parents ... did not know that their booster-age child was inadequately protected by an adult seat belt" (p. 327). Therefore, besides enacting child safety laws and distributing safety seats, implementing education programs in using booster seats would enhance awareness and prevent deaths and injuries among child passengers (Simpson, 2002; Bingham, 2006; Philbrook, 2009; Center for Disease Control and Prevention, 2011).

In December of 2006, the Ollie Otter Booster Seat and Seat Belt Safety Program (Ollie Otter Program) began in Tennessee through partnership with Tennessee Tech University and the Tennessee Road Builders Association. Sponsored by the Tennessee Governor's Highway Safety Office, this program's primary objective is to offer booster seat and seat belt education to children K-4th grade through interactive programs in elementary schools across Tennessee. Specifically, Ollie Otter Program aims to develop a positive opinion among children, parents, and communities towards seat belt and booster seat use.

The program has almost totally saturated Tennessee, having reached all ninety-five counties within its first year. Table 1 illustrates the number of schools, classrooms, and children that the Ollie Otter safety message has reached.

Table 1 – OLLIE OTTER PROGRAM COVERAGE IN TENNESSEE

	Schools Covered	Classrooms Covered	Children Covered
Year 1	154	2,928	57,184
Year 2	312	5,037	91,500
Year 3	346	5,239	96,000
Year 4 (to date)	330	4,406	79,000
Total	1,142	17,610	323,684

A role model for children, Ollie Otter encourages them to make the correct choice regarding safety seats at a critical behavior-shaping age. However, with the growing number of Hispanic children in Tennessee, the language barrier poses a problem for the program. Rising throughout the past decade, the Hispanic population represents 4 percent of the total Tennessee population. From 2000 to 2006, Tennessee had a 56 percent Hispanic population growth rate, the fourth highest in the nation (U.S. Census Bureau 2006). Currently, 6 percent of all K-12 students in Tennessee are Hispanic; within that population, 30 percent of those 5 years and older live in homes where only English is spoken (Pew Hispanic Center, 2009).

In response to this growing Hispanic population, the Ollie Otter program has partnered with the Metro Nashville Police Department's program, *El Protector*, to promote safety awareness within the Hispanic community. Together, these programs have translated children's materials (bookmarks and newsletters) into Spanish. In addition, users can select a Spanish translation of the Ollie Otter website, www.seatbeltvolunteer.org. While the Ollie Otter program is reaching Hispanic children, communication also needs to be established with Hispanic parents because research has shown that restraint use among young children often depends on the driver's use. One study showed that almost 40 percent of children riding with unbelted drivers were unrestrained. Yet, using children's safety seats reduced death risk by 71 percent for infants and 54 percent for toddlers, while using booster seats compared to seat belts alone reduced injury risk by 59 percent (Center for Disease Control and Prevention, 2011).

Using survey information from Hispanic parents in Middle Tennessee, this research study seeks to analyze Hispanics' opinions about booster seat and seat belt safety in relationship to use of these devices. Based on this research, suggestions can be made for influencing safety beliefs and practices to promote using booster seats and seat belts.

LITERATURE REVIEW

Research literature provides insight into safety device use. Conducting computer-automated telephone interviews with a random sample of parents with children ages 4-8 years in Michigan, Bingham et al. (2006) found that parental motivations for using booster seats varied. Child control was more important to fathers, while children's comfort was essential for mothers. Booster seat cost was an issue for mothers, who preferred not using booster seats, especially when they were in a hurry. Istre et. al (2002) found a close link between drivers' seat belt use and children's safety seat use. In addition, Habib et al. (2010) found that adolescents use safety belts twice as much when they have good relationships with their parents, creating strong family bonds. According to Ebel et al. (2006), Latinos' motivating factors for using booster seats included child safety and the possibility of getting a ticket, while facilitating factors were affordable price, ease of use and children liking the seat. Those researchers also noted perception of a child being big or old, perceived child resistance and the booster seat's cost as facilitating factors.

While traveling with children, Hispanic adult passengers used seat belts less than fellow Caucasian passengers (Glassbrenner and Ye, 2008). Similarly, use of restraints in vehicles for Hispanic children was found to be 19 percent compared to 62 percent for preschool children of all other races (Diez et al., 2001 as cited in Istre et al. 2002). Another study found that only 50 percent of Hispanic/Latino participants self-reported using booster seats with their children (Bingham, 2006). In Dallas, Texas, a multifaceted program conducted by a bilingual staff increased child restraint use to 72 percent among Hispanic pre-schoolers, in contrast to 69

percent among comparison-population preschoolers (Istre et al., 2002). Another study documented two community-based programs promoting booster seat use. Of the two programs, the Hispanic-targeted program increased booster seat use through educational events “held in conjunction with another community event such as, parenting classes, the county fair, and events at the local churches” (St. Louis et al., 2008, p. 301). These results make sense because Hispanic parents generally have less knowledge of child restraint systems than non-Hispanic parents. With different belief systems, Hispanic parents tend to include family members in all decisions and consider them as their most trusted sources of information (Martin et al., 2006). Major communication methods for Hispanic families are radio in rural communities and television in urban communities (Ebel et al., 2006); preferably through culturally appropriate messages in Spanish (Lee et al., 2003).

Investigating use of child booster seats among Latino families, Quistberg et al. (2010) revealed that direct observation is a better research method than self-reporting due to exaggerated frequency of booster seat use when self reporting. Specifically, these researchers found that 52 percent of Latino parent drivers actually used booster seats with their children, while their self-reported use level was 68 percent. According to Parad et al. (2001), 27 percent of Hispanic drivers over reported seatbelt use compared to 21 percent of non-Hispanic drivers. Another study supports those findings by suggesting socially desirable responses were significantly higher with Latinos than with Caucasians (Hopwood et al., 2009).

Children directly influence their family’s purchase decisions. According to Thomson et al., “Generally, the more knowledge a child had in relation to a product, the more influence they had over the purchase decision” (2007, p.194), “particularly in the case of products relevant to them” (Shoham and Dalakas, 2005; Martensen and Gronholdt, 2008, p. 19). When studying parents’ perceptions of their 5-13 year-old children, Martensen and Gronholdt (2008) found that older children had more influence on family decision making, especially when initiating the buying process. Children participating in The Ollie Otter Booster Seat and Seat Belt Safety Program affected their parents’ behavior regarding booster seat use for the children and/or their siblings.

METHODOLOGY

For this study, multiple resources were used to obtain the measurement instrument’s items, which were pretested with multiple samples and found to be adequately reliable and valid (Anitsal, Anitsal, and Liska 2010). The Cronbach’s alpha score for constructs changed between 0.65 and 0.96. On related constructs resulting from Quartimax rotation, all items’ factor loadings were above 0.5, indicating adequate reliability and validity.

This study’s data was collected through a mail survey. Once booster seat and safety belt training was completed in an elementary school, teachers were invited to help contact their students’ parents. Several days later, students received envelopes containing surveys for their parents. Once the surveys were returned to teachers in sealed envelopes, teachers mailed them to the researchers. No incentives were given to the parents. However, teachers received vouchers as a token of appreciation for class supplies and a pizza party. Initial data reflected a relatively representative sample of Hispanic populations in Tennessee (study data=3.6% and TN census=4.6%). For statistical rigor, however, additional Hispanic respondents were recruited through churches and civic organizations. A Hispanic conducted the interviews. Data was combined after checking the samples’ variability differences.

The study’s sample size was 905 (Table 1). Seventy-six percent were female. The majority of respondents were 25-44 years old; specifically, 33 percent were 35-44 , while 48 percent were 25-34. Caucasians represented 79.4 percent of the sample respondents (TN census=75.6%), while 8 percent were Hispanic. The remainder represented African/Americans, Asians, and others, of which analysis was out of the scope of this paper.

Thirty percent of the respondents’ gross annual household income was \$20,000-39,000. 20 percent was less than \$20,000; 19 percent was \$40,000-59,000. However, 45 percent of Hispanic respondents’ household income was \$20,000-39,999, while most Caucasian respondents made \$40,000 or more (Table 3 Part A).

In terms of education, 32 percent of the respondents had a high school diploma while 29 percent had a college education. Caucasian respondents were more educated at college level with some college, associate or bachelor's degree level (Table 3).

More than 70 percent of the respondents were married, having two or three children. Sixty percent of the respondents had one child 5-9 years old; 25 percent had two children (Table 2). The percentage of Hispanic and Caucasian respondents having two children was about the same (39.4 and 41.7 respectively).

Households had an average of 2.3 vehicles (Table 2). Caucasian respondents had more vehicles in their households than Hispanic respondents (Table 2, Part D). The most popular vehicles were cars and trucks, followed by SUVs and mini vans. The second vehicle in households was typically a car or truck. Forty one percent of the respondents indicated family members or friends had experienced a near-fatal car accident, while 28 percent had a fatal car accident (Table 2).

Table 2 – DEMOGRAPHICS (N=905)

Gender	Female		Male					
(%)	76.0		24.0					
Number of Vehicles in the household								
<i>Mean = 2.3</i>	Car (%)		Mini Van (%)		SUV (%)		Truck (%)	
None	36.7		73.3		63.4		48.3	
1	46.4		25.5		33.1		40.7	
2	13.6		1.1		3.3		9.4	
3	2.8		0.0		0.1		1.3	
Age	18-24		25-34	35-44	45-54	55-64	65-74	
(%)	6.5		47.8	33.3	8.8	2.9	0.7	
Ethnic Origin	African American		Asian American	Native American	Hispanic	Caucasian		Other
(%)	8.3		0.8	1.4	7.8	79.4		2.2
Highest level of Education	Literate	Some High School	High School Diploma	Some College	Associate Degree	Bachelors Degree	Masters Degree	Doctoral Degree
(%)	7.5	7.8	31.5	28.5	9.7	10.2	4.3	0.4

Gross Annual Household Income (x1000 USD)	Not answered	<20	20-39	40-59	60-79	80-99	100-120	>120
(%)	6.7	20.0	30.4	19.0	12.7	6.7	2.8	1.7
Number of Children in Household			< 5 Years old (%)		5-9 Years old (%)		10-17 Years Old (%)	
<i>Mean = 2.25</i>	None	57.9		10.1		62.8		
	One	31.5		59.9		26.3		
	Two	8.3		25.3		9.6		
	Three	1.8		4.1		1.1		
	> Three	0.6		1.0		0.2		
Marital Status	Single	Married	Separated	Divorced	Widowed	Other		
(%)	14.6	71.7	2.5	8.0	1.4	1.8		

Table 2 – DEMOGRAPHICS (N=905) (Contin.)

Did you, your family or your friends have a near-fatal car accident?	Yes: 40.9%	No: 59.1%
Did you, your family or your friends have a fatal car accident?	Yes: 27.8%	No: 72.2%

**Table 3 – DEMOGRAPHICS: COMPARISON OF HISPANICS AND CAUCASIANS
PART A – HOUSEHOLD INCOME**

Household Income (\$)	Hispanics (%) (N=71)	Caucasians (%) (N=719)	Total (%) (N=905)
No answer	11.3	5.8	6.7
<20,000	21.1	19.5	20.0
20,000-39,999	45.1	27.1	30.4
40,000-59,999	12.7	20.2	19.0
60,000-79,999	4.3	14.6	12.7
80,000-99,999	1.4	7.8	6.7
100,000-119,999	0.0	3.5	2.8
>120,000	1.4	1.5	1.7

PART B – EDUCATION

Education	Hispanic (%)	Caucasian (%)	Total (%)
Literate	18.3	6.7	7.5
Some High School	22.5	6.3	7.8
High School Diploma	26.8	31.4	31.5
Some College	22.5	28.2	28.5
Associate Degree	4.2	11.0	9.7
Bachelors and More	5.6	16.5	14.9

PART C – NUMBER OF CHILDREN IN HOUSEHOLD

No. Children in Household	Hispanic (%)	Caucasian (%)	Total (%)
1	32.4	19.9	22.3
2	39.4	41.7	40.6
3	21.1	26.7	25.6
4	2.8	7.8	8.1
5	1.4	2.5	2.3
6	0.0	0.7	0.6
7	0.0	0.4	0.6
Average	1.93	2.34	2.25

PART D – NUMBER OF VEHICLES IN HOUSEHOLD

No. of Vehicles in Household	Hispanic (%)	Caucasian (%)	Total (%)
1	26.8	20.7	22.7
2	40.8	43.8	44.5
3	16.9	24.8	22.5
4	7.0	7.4	6.6
5	8.5	1.4	2.1
6	0.0	1.3	1.3
7	0.0	0.3	0.2
Average	2.29	2.28	2.30

* Bold numbers are significant at $p=0.05$ level.

RESULTS AND DISCUSSION

The mean responses of Hispanics and Caucasians were analyzed to understand differences and similarities between the two groups. Itemized comparisons of each construct's means are provided in Table 4. The first construct, *Intention toward Booster Seat*, had seven items. Only one item's mean was statistically significantly different at $p=0.05$ level. Hispanics do not seem to compare the benefits of different booster seat brands as much as Caucasians do. One reason might be that they rely heavily on word-of-mouth communication. Hispanic parents generally have less knowledge of child restraint systems and appreciate more of their trusted information sources (Martin et al., 2006).

The second construct, *Attitude toward Booster Seat*, had eight items. All but one of the items' means was significantly different for Hispanics and Caucasians. That exception was safe-unsafe distinction of booster seats. However, safe-unsafe bipolar adjectives had the highest mean of all eight items for Hispanics, while bad-good bipolar adjectives had the second-highest mean. One reason might be the simplicity of these two bipolar adjectives compared to the remaining six pairs of adjectives, given the preference of Spanish over English for many Hispanics noted by Lee et al. (2003).

The third construct, *Attitude toward Children*, had four items. Half of the items had significant differences between the two groups. Caucasians had higher mean scores in the following two items: "Children are enjoyment of life" and "I care about the well being of my children." The fourth construct, *Attitude toward Children While Driving*, had only one item with

TABLE 4 - COMPARISON OF MEANS

Construct	Items	Hispanics (N=71)	Caucasians (N=719)
Intention Toward Booster Seat	Look for information about booster seats	5.31	5.04
	Spend your time to find a really good booster seat	5.30	5.61
	Compare the benefits of different booster seat brands	4.93	5.39
	Buy a booster seat for each child in your household	6.28	6.12
	Secure your child into booster seat every time you drive	6.59	6.44
	Discuss the importance of using booster seat with a friend	5.68	5.49
	Recommend that your friends use a booster seat for their children.	6.04	5.82
Attitude Toward Booster Seat	Bad - Good	6.08	6.50
	Unpleasant - Pleasant	5.52	6.19
	Harmful - Beneficial	5.83	6.43
	Unfavorable - Favorable	5.93	6.34
	Unappealing - Appealing	5.38	6.11
	Inappropriate - Appropriate	5.83	6.40
	Foolish - Wise	5.99	6.43
Unsafe - Safe	6.32	6.50	
Attitude Toward Children	Children are enjoyment of life.	6.54	6.84
	I care about the well being of my children	6.61	6.90
	I feel good about my children.	6.72	6.83
	I try to protect my children from potential dangers.	6.79	6.79
Attitude Toward Children While Driving (R)	It is not always necessary to wear a seat belt for a short errand.	2.39	2.05
	I get angry when children make a lot of disruptive noise during driving	4.28	4.19
	Regardless of their age, my children can responsibly sit in any seat they choose in the car.	2.24	2.04
	I can do anything to stop my children whining in the car; even let them get out of the booster seat.	2.04	1.43
	Sometimes I forget to tell my children to buckle up.	1.97	1.66
	When I am driving really slowly in a rural road, it is not necessary to put my child in his/her booster seat.	1.66	1.39
Attitude Toward Multi- Tasking While Driving	Police should ticket those who drive while talking on a cell phone.	4.96	4.18
	Eating while driving is dangerous.	5.66	4.88
	Drinking beverages while driving is dangerous.	4.27	4.06
Attitude Toward Risk Attraction in Driving (R)	Fast driving would make driving more pleasant.	2.56	2.29
	I would like to drive a race car.	2.90	2.67
	I sometimes do things I know are dangerous just for fun.	1.87	1.60
	Taking risks can be fun.	1.65	1.84
	I never hesitate to overtake those who drive very slowly.	3.61	3.09
Attitude Toward Risk Aversion in Driving	I give the right of the way to an aggressive driver, if he or she endangers my safety.	5.68	6.28
	I always buckle up.	6.56	6.34
	I would rather be safe than sorry.	6.49	6.73
	I always avoid risky moves in traffic.	5.96	5.94
	I pay attention to safety features while buying a car.	6.06	5.83

a significantly higher mean value for Hispanics than for Caucasians: “I can do anything to stop my children whining in the car; even let them get out of the booster seat.” The fifth construct,

Attitude toward Multi-tasking, had two out of three items statistically significant. Hispanics had higher mean scores for the following two items: “Police should ticket those who drive while talking on a cell phone”; and “Eating while driving is dangerous.” The sixth construct, *Attitude toward Risk Attraction in Driving*, had five items. Only the following item was significant with a higher mean score for Hispanics: “I never hesitate to overtake those who drive very slowly.” The seventh construct, *Attitude toward Risk Aversion in Driving*, had five items. Only the following item was significant with a higher mean score for Caucasians: “I give the right of the way to an aggressive driver if he or she endangers my safety.” Hispanic parents seemed more likely to be authoritarian towards their children while driving and disapproved of multi-tasking, but tended to take risks in driving.

Not surprisingly, Hispanic parents, averaging 2 children and 2 vehicles per household, considered booster seats to be significantly more expensive than Caucasian parents did. Furthermore, the Hispanics’ household incomes were significantly lower than the Caucasians’.

A comparison of means highlighted major attitudinal differences between Caucasians and Hispanics. Attitude toward the cost of booster seats and intentions regarding them evoked two questions: (1) what would make respondents purchase (or not purchase) a booster seat for each child in the household? and (2) What would motivate them to secure (or not secure) each child in a booster seat every time they drive? For each of the respondent categories, two stepwise regression models were tested to study these questions. Multicollinearity checks produced satisfactory results for both models. Specifically, VIF was around 1.00, and inter-item correlations were good. All models were statistically significant, and overall R-squares for all models were acceptable (Tables 5 and 6).

TABLE 4 - COMPARISON OF MEANS (Cont.)

Construct	Items	Hispanics (N=71)	Caucasians (N=719)
Cost of Booster Seat	The cost of a booster seat is too high for me.	3.86	2.96
	Children grow so fast that the cost of a booster seat exceeds the benefits.	3.75	2.51
	It is difficult to afford multiple booster seats, if you have more than one child.	4.31	3.45
	There should be a government control on booster seats for affordable prices.	5.51	4.81
	Sellers should lower their profit margins on booster seats.	5.21	4.94
	Low-cost rental or purchase programs for booster seats should be available.	5.27	4.72
	State governments should provide free booster seats to those who cannot afford to buy them.	5.44	5.54

(R) Reverse coded items

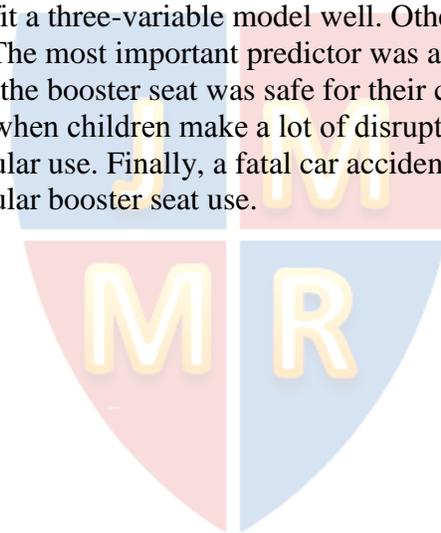
* Bold numbers show a statistically significant difference at $p=0.05$ level

Two models investigated predictor variables for buying a booster seat for each child in Hispanic and Caucasian households. As indicated in Table 5, all the Hispanic model’s variables were positively related to the dependant variable. The first three most influential variables were attention paid to a car’s safety feature (risk aversion), number of vehicles in the household, and family members or friends involved in a fatal car accident. Two other influential variables for Hispanics come from the attitude toward children while driving construct. Apparently, children’s bad behavior in the vehicle encouraged parents to buy booster seats.

The motivations of Caucasian parents to buy booster seats were different from Hispanics'. For example, the attitude of Caucasians towards booster seat and avoidance of risky moves in traffic encouraged them to buy booster seats. However, age and marital status were detracting factors. Younger parents were less likely to purchase booster seats than older parents. Furthermore, if parents were separated or divorced, they were less likely to purchase a booster seat than single or married parents. Some Caucasian parents also considered booster seats to be too expensive. Their attitude toward children while driving also influenced their decision about buying a booster seat. If they let whining children out of booster seats/seat belts and if they thought wearing a seat belt for short drives was unnecessary, they would not buy a booster seat for each child in the household.

In addition to purchasing factors, this study explored consistency of using booster seats. Sample characteristics indicated that each demographic group averaged two children and two vehicles per household. Based on this information, factors encouraging (or detracting from) parents' using booster seats for each child in both vehicles were examined. The second set of regression models compared the intentions of Hispanic and Caucasian parents to use booster seats consistently (Table 6).

The Hispanic sample fit a three-variable model well. Other variables did not add more information than this model. The most important predictor was attitude towards the booster seat. If Hispanic parents knew that the booster seat was safe for their children, they used it regularly. Furthermore, "Getting angry when children make a lot of disruptive noise during driving" positively correlated with regular use. Finally, a fatal car accident in the family also promoted this demographic group's regular booster seat use.



**TABLE 5 - REGRESSION RESULTS:
INFLUENCE OF INDIVIDUAL CHARACTERISTICS AND ATTITUDES ON COMMITMENT
TO BUY BOOSTER SEAT**

Dependent Variable: Buy a booster seat for each child in your household		Hispanics		Caucasians		
Model Fit	F-Value=9.314	P-value=0.000	F-Value=19.155	P-value=0.000		
Overall R ²	0.159					
Scale	7-Point Likert Scale where 1 = Strongly Disagree7 = Strongly Agree					
Predictor Variables	β	t	p-value	β	t	p-value
Attitude Toward Booster Seat	Bad-Good			0.232	6.540	0.000
Demographics	Total Number of Vehicles in Household	0.320	3.276	0.002		
	Fatal Car Accident	0.271	2.809	0.007	-0.139	-3.937
	Age				-0.077	-2.215
Attitude Toward Risk Aversion in Driving	Marital Status			0.110	3.137	0.002
	I always avoid risky moves in traffic. I pay attention to safety features while buying a car.	0.387	3.955	0.000		
Attitude Toward Children While Driving	I get angry when children make a lot of disruptive noise during driving.	0.231	2.348	0.022		
	I can do anything to stop my children whining in the car, even let them get out of the booster seat. It is not always necessary to wear a seat belt for a short errand.	0.262	2.715	0.008	-0.082	-2.256
Cost of Booster Seat	The cost of a booster seat is too high for me.			-0.073	-3.835	0.000
				-0.136	-3.835	0.000

**TABLE 6 - REGRESSION RESULTS:
INFLUENCE OF INDIVIDUAL CHARACTERISTICS AND ATTITUDES ON
COMMITMENT TO USE BOOSTER SEAT ON REGULAR BASIS**

Dependent Variable: Secure your child into booster seat every time you drive		Hispanics		Caucasians			
		F-Value=9.645	P-value=0.000	F-Value=25.681	P-value=0.000		
Model Fit							
Overall R ²		0.270		0.216			
Scale							
7-Point Likert Scale where 1 = Strongly Disagree ... 7 = Strongly Agree							
Predictor Variables		β	t	p-value	β	t	p-value
Attitude Toward Booster Seat	Bad-Good	0.349	3.368	0.001	0.199	4.299	0.000
	Unsafe – Safe				0.115	2.523	0.012
Demographics	Fatal Car Accident	0.255	2.493	0.015	-0.096	-2.909	0.004
	Marital Status				0.093	2.710	0.007
Attitude Toward Risk Aversion in Driving							
Attitude Toward Children While Driving	It is not always necessary to wear a seat belt for a short errand.				-0.149	-4.303	0.000
	I get angry when children make a lot of disruptive noise during driving. I can do anything to stop my children whining in the car even let them get out of the booster seat.	0.287	2.771	0.007	-0.122	-3.481	0.001
Cost of Booster Seat	The cost of a booster seat is too high for me.				-0.129	-3.575	0.000
	There should be a government control on booster seats for affordable prices.				0.084	2.366	0.018

The Caucasian sample presented a more complex outlook. A major enhancer of booster seat use was attitude toward booster seats. For regular use of booster seats, parents had to consider the seat to be good (well made) and know that it was safe for their children. The parents' risk aversion in driving also related to regular use of booster seats, especially among those who preferred to be safe than sorry. The major detractor from regular use, as with purchasing a booster seat, was related to attitude toward children while driving. If parents believed wearing a seat belt was unnecessary for short errands and eventually let whining children out of booster seats, those parents did not secure them in seats every time they drove. A booster seat's cost and the marital status were other negatively influencing variables. Divorced or separated parents were more negligent about regular using booster seats.

As indicated in the literature, purchase and use of child-restraint systems increase among Hispanic parents with increased knowledge of benefits. Again, of interest were the cultural differences in the two demographic groups' belief systems as well as how parents interpret booster seats' benefits. Hispanic parents tend to secure children in booster seats to stop disruption while driving, whereas Caucasians may let children out of their seats. Considering that this study was conducted among parents whose children had completed the Ollie Otter program, parents seemed to learn about the seats' safety from their children. Furthermore, the Hispanic children frequently had a better grasp of English than their parents. Finally, as expected, parents' favorable attitude toward booster seats were the result of children liking them, a finding that also coincided with the literature.

Alarming factors about Caucasian parents, especially younger ones, were their attitudes towards their passenger children while driving. As a result, remedial actions are necessary to change the belief that seat belts are not needed during short drives, and to suggest how children's continuous whining can be resolved while parents are driving. Cost of booster seats versus injuries/deaths also needs to be addressed in future campaign communications.

This study has various limitations, including socially desirable responses, especially among Hispanic. Trained about the probability of socially desirable responses, the Hispanic conducting the quota interviews assured parents their responses were completely anonymous; responding was completely the decision of the participants and they could stop interviews anytime they wished. Another difficulty was that, initially, mothers responded more than fathers. To remedy this deficiency, the researchers encouraged teachers to recruit fathers by sending to them a letter with the survey. The only compensation for responding was pizza-party vouchers for the students. This method increased male participants considerably (24%), but the percentage was still behind Tennessee's census results (48.7%).

FUTURE RESEARCH AVENUES

Childhood socialization in Hispanic families seems to be different from other ethnic groups in terms of "child rearing values" and "interpersonal behavior." Hispanic parents, including Mexican-American, Puerto Rican and other Hispanic families, "encourage family closeness, parental authority, and interpersonal relatedness" (Zayas and Solari, 1994, p. 204). For example, Puerto Rican mothers consider children's demeanor and obedience important (Zayas and Solari, 1994). Therefore, it seems that education about using booster seats would positively reinforce Hispanic parents' behavior regarding these devices, more so than Caucasian parents'. However, more obedient Hispanic children may not be able to sufficiently influence their parents' use of booster seats. Another study revealed that "highly child-centered" mothers

had a tendency not to buy their children's favorite product (Berey and Pollay, 1968). Those relationships should be further investigated.

Socialization is important to children's development. Furthermore, "cohabitation, particularly for Hispanics, may be associated with adverse outcome" (Gibson-Davis and Gassman-Pines, 2010, p. 151). These researchers revealed that by age four, one out of three children lived without their two married biological parents. This statistic was highest for Hispanic families with 21 percent cohabitating. Results indicated that interactions between mothers and children in Hispanic cohabiting and divorced families would likely be of lower quality than those living with their biological parents (Gibson-Davis and Gassman-Pines, 2010). Further research is needed to determine to what degree cohabitation would cause positive reinforcement of booster seat use in Hispanic families to diminish. In the United States, Hispanics seem to use seat belts at least as often as Caucasians. However, between 1999 and 2003, about 80 percent of fatalities involved Hispanic rather than Caucasian motorists. Research findings indicate that a "Hispanic subgroup of national origin" (e.g., Cuban, Puerto Rican, Mexican American, Central American, South American) would be an important determinant of seat belt use and possibly of booster seat use as well (Briggs et al., 2006). Therefore, the use of booster seats among Hispanics with different national origins needs to be studied further.

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