

A BRIEF TAILORED FAMILY- CENTERED SEAT BELT INTERVENTION FOR HOSPITALIZED TRAUMA PATIENTS

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Disclaimer

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16. Abstract <p>Among children 5-19 years, the commonest cause of unintentional injury-related death is being an occupant/driver in a motor vehicle crash (MVC). In 2006 in the United States, there were 568,188 injuries among children (0-18) due to MVC. Of these, 38,039 were severe enough to require hospitalization and there were 6,781 deaths. Seat belts and appropriate child restraints reduce the morbidity and mortality from MVC. Yet studies have shown that less than 50% of children hospitalized from a MVC were restrained at the time of the crash.</p> <p>In 2007, a statewide direct observation survey reported 93.7% of Michigan motorists wore their seat belts in the front seat. In 2007, at the University of Michigan CS Mott Hospital, 120 children were hospitalized due to MVC and only 64% were restrained. <i>The unrestrained children suffered the most severe injuries and had the greater morbidity.</i> A prime factor that influences whether a child uses a safety device is whether a parent uses a seat belt. In focus groups, teens said they used seat belts because of how they were raised. In a prior study, we compared safety attitudes and practices with 800 grade 4-6 children paired with their parents. Matched analysis demonstrated that parents who always wear a seat belt are more likely to have children who sit in the back seat and wear a seat belt (73% vs. 27%, p<0.05). This suggests that the parent/child non-seat belt/restraint users are an ideal target for an intervention. Our hypothesis for this study was that both parents and children are equally important in modifying pediatric safety practices. The specific aim of this study was to develop and test in a randomized controlled study a brief family- centered "seat belt intervention.</p>			
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SI* (MODERN METRIC) CONVERSION FACTORS

APPROXIMATE CONVERSIONS TO SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
in	inches	25.4	millimeters	mm
ft	feet	0.305	meters	m
yd	yards	0.914	meters	m
mi	miles	1.61	kilometers	km
AREA				
in ²	square inches	645.2	square millimeters	mm ²
ft ²	square feet	0.093	square meters	m ²
yd ²	square yard	0.836	square meters	m ²
ac	acres	0.405	hectares	ha
mi ²	square miles	2.59	square kilometers	km ²
VOLUME				
fl oz	fluid ounces	29.57	milliliters	mL
gal	gallons	3.785	liters	L
ft ³	cubic feet	0.028	cubic meters	m ³
yd ³	cubic yards	0.765	cubic meters	m ³
NOTE: volumes greater than 1000 L shall be shown in m ³				
MASS				
oz	ounces	28.35	grams	g
lb	pounds	0.454	kilograms	kg
T	short tons (2000 lb)	0.907	megagrams (or "metric ton")	Mg (or "t")
TEMPERATURE (exact degrees)				
°F	Fahrenheit	5 (F-32)/9 or (F-32)/1.8	Celsius	°C
ILLUMINATION				
fc	foot-candles	10.76	lux	lx
fl	foot-Lamberts	3.426	candela/m ²	cd/m ²
FORCE and PRESSURE or STRESS				
lbf	poundforce	4.45	newtons	N
lbf/in ²	poundforce per square inch	6.89	kilopascals	kPa

APPROXIMATE CONVERSIONS FROM SI UNITS

Symbol	When You Know	Multiply By	To Find	Symbol
LENGTH				
mm	millimeters	0.039	inches	in
m	meters	3.28	feet	ft
m	meters	1.09	yards	yd
km	kilometers	0.621	miles	mi
AREA				
mm ²	square millimeters	0.0016	square inches	in ²
m ²	square meters	10.764	square feet	ft ²
m ²	square meters	1.195	square yards	yd ²
ha	hectares	2.47	acres	ac
km ²	square kilometers	0.386	square miles	mi ²
VOLUME				
mL	milliliters	0.034	fluid ounces	fl oz
L	liters	0.264	gallons	gal
m ³	cubic meters	35.314	cubic feet	ft ³
m ³	cubic meters	1.307	cubic yards	yd ³
MASS				
g	grams	0.035	ounces	oz
kg	kilograms	2.202	pounds	lb
Mg (or "t")	megagrams (or "metric ton")	1.103	short tons (2000 lb)	T
TEMPERATURE (exact degrees)				
°C	Celsius	1.8C+32	Fahrenheit	°F
ILLUMINATION				
lx	lux	0.0929	foot-candles	fc
cd/m ²	candela/m ²	0.2919	foot-Lamberts	fl
FORCE and PRESSURE or STRESS				
N	newtons	0.225	poundforce	lbf
kPa	kilopascals	0.145	poundforce per square inch	lbf/in ²

*SI is the symbol for the International System of Units. Appropriate rounding should be made to comply with Section 4 of ASTM E380.
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Description of the Problem and Specific Aims

Every year, injuries kill more children in the United States (US) than the combined number of deaths from cancer, congenital anomalies, heart disease, chronic respiratory disease, influenza, pneumonia, septicemia, and cerebrovascular disease.^{1,2} Among children 5-19 years, the most common cause of unintentional injury-related death is being an occupant/driver in a motor vehicle crash (MVC). In 2006, in the US, there were 568,188 injuries in children (under age 18) due to MVC; 38,039 were severe enough to require hospitalization, and there were 6,781 deaths.³ Seat belts and appropriate child restraints reduce the morbidity and mortality from MVC. Yet studies have shown that most of children hospitalized from a MVC were unrestrained at the time of the crash. In 2007, at the University of Michigan CS Mott Children Hospital Level One Pediatric Trauma Center, 120 children were hospitalized due to MVC and only 64% were restrained. *The unrestrained children suffered the most severe injuries and had the greater morbidity.* Thus, trauma patients appear to represent a subset of high risk part-time seat belt users.

A prime factor that influences whether a child uses a safety device is whether his or her parent uses a seat belt. In focus groups, teens reported that they used seat belts because of how they were raised. In a prior study (from our research group), we compared safety attitudes and practices among 800 children (grades 4-6) paired with their parents. Matched analysis demonstrated that parents who always wore a seat belt were more likely to have children who sat in the back seat and wore a seat belt (73% vs. 27%, $p < 0.05$).⁴⁻⁶ These findings are consistent with other reports. Drivers (usually parents) who did not wear seat belts were less likely to restrain children in their vehicle. Nearly 40% of children riding with unbelted drivers were completely unrestrained, compared to only 5% of children riding with belted drivers.⁷ Taken together, data suggest that the parent/child non-seat belt/restraint users are an ideal target for an intervention to improve part time seat belt use.

This pilot study had two primary aims:

- 1) Develop a tailored family-centered seat belt brief intervention (SBBI), based on an understanding of social norms and reasons for part time use of safety restraints, that improves seat-belt-restraint use in a high risk group of hospitalized trauma patients (ages 7-14).
- 2) Conduct a randomized controlled trial comparing the tailored family-centered seat belt intervention (developed in aim one) to a control condition known as enhanced usual care (EUC) The primary outcomes was self-reported seat belt use at one month post-intervention.

This study also had several secondary aims:

1. Compared pre- and post- intervention knowledge, attitudes, commitment to changes and self-efficacy (through behavior intentions) of seat belt use between the SBBI condition and the EUC condition.
2. Compare self-reported use of booster seats (for those less than 8) at one month post-intervention between the SBBI condition and the EUC condition.
3. Compare child positioning (for those less than 13) at one month post-intervention between the SBBI condition and the EUC condition.
4. Explore (initially) parent sense of competency and how it may or may not affect motor vehicle safety practices

Methods

Study setting

The study took place at the University of Michigan's CS Mott Children's Hospital. This is a Level I American College of Surgeons (ACS) verified pediatric trauma center. It is one of three Level I pediatric trauma centers in the state of Michigan. Eighty percent of pediatric trauma occurs between May 1 and August 31. The study took place between April and October 2009. The study was approved by the University of Michigan Institutional Review Board (IRB; study number HUM00026025).

Intervention development

Theoretical Framework

The seat belt brief intervention developed for this study was based on the theoretical framework of "Motivational Interviewing" (MI) developed by Miller and Rollnick as well as the "Stages of Change" developed by Prochaska and DiClemente.⁸⁻¹⁰ MI is a directive, client-centered style of counseling that helps clients explore and resolve their ambivalence about changing. MI begins by establishing a rapport with the client and then negotiates an agenda (in selecting a topic for discussion) and assesses the participant's readiness to change the selected behavior. The theoretically active components of MI are increasing readiness to change, increasing self-efficacy and understanding the perceived discrepancy between actual and ideal behavior. "Stages of Change" play a substantial role in MI interventions. In this theoretical model, change is examined through a series of "stages of change", termed pre-contemplation, contemplation, preparation, action, and maintenance. The "stages of change" of each participant may impact how effective an MI is in changing a behavior. We previously demonstrated in an Emergency Department (ED) based alcohol study that a patient's stage of change is important in change a negative behavior (e.g. alcohol misuse).¹¹ For example, patients in the contemplation stage were nearly twice as likely as patients in the pre-contemplation stage to reduce their alcohol-related harm. In the current study, the stages of change were assessed after identifying eligible patients (baseline) and at one month follow-up.

MI is a common technique used in interventions developed in health care settings. In the trauma and ED setting, these interventions are typically brief (less than 30 minutes) and frequently use screening to identify the behaviors the intervention targets.¹²⁻¹⁷ This process has become known as "Screening and Brief Intervention" (SBI).

Intervention

The seat belt brief intervention developed included: an age and developmentally appropriate brief MI with the youth; and a conjoint brief MI with the parent and youth, focusing on risky settings. A workbook was developed for the research assistant/therapist (see Appendix A). Three forms of the intervention were developed for children and their parents: one for seven year olds (seat belts and booster seats), one for 8-12 year olds, and one for 13-14 year olds. The interventions were interactive and had specific age appropriate feedback and scenarios. Once the primary interventions were developed, they were beta tested on a set of 20 parent/child groups and adjusted based on the feedback. These 20 were NOT included in the data analysis.

Social Norms. The social norms used for the intervention included discussion of the following: injury is a leading cause for morbidity and mortality in children and adults; how use of a seat belt prevents injury and death; the percentage of adults and children that normally use a seat belt;

the risk of injury when using a seat belt as opposed to not using a seat belt; and how sitting in the back seat of a car for a child less than 13 reduces the risk of injury compared to the same child sitting in the front seat of a car involved in a motor vehicle crash. The specific use of these social norm issues can be found in the workbooks (Appendix A).

Control Condition – EUC Pamphlet

Pamphlets were downloaded from the National Highway Traffic Safety Administration's web site (<http://www.nhtsa.gov/Safety/CPS>). The pamphlet(s) contained generic information with respect to seat belt use, child car seat, and positioning. Parents and children viewed these pamphlets.

Procedures

Research staff training.

The research assistants were trained by the principle investigators. The training included overall discussion of study aims and methods, study protocol, motivational interviewing, and follow-up techniques. The research assistants were also oriented to patient care and flow at the hospital. They were also trained in human subjects' protections, unique issues related to adolescents, and patient rights and confidentiality, including how to store data and properly remove identifying information. To ensure fidelity of the intervention all research assistants were monitored by a senior study member.

Patient eligibility.

Children between the ages of 7 and 14 years who were admitted to the hospital with the diagnosis of injury (excluding sexual assault and suicide) were eligible for participation, along with their parents. Patients who were intubated, suffered a severe head injury, did not speak English, or did not have a parent or guardian available were excluded. Participation was voluntary. Children and their parents who agreed to participate in the study then completed a behavior safety assessment (a screening survey; see Appendix B) to select/identify part time seat belt use. The Centers for Disease Control and Prevention (CDC) recommends that all children over 8 years of age *always* use a seat belt; children less than 13 years old should *always* sit in the back seat of the car; and children younger than 8 years should *always* use a booster seat. The parent/child group was eligible for the study randomization if by self report the child:

- did not always use a seat belt;
- was younger than 13 years and did not always sit in the back seat of a car; and/or
- was younger than 8 years and did not always use a booster seat while riding in a vehicle.

Randomization.

All patients who were eligible after screening were randomized to one of the two conditions, either the SBBI or the EUC (the control group). Computer-generated random numbers were used to assign treatment conditions. After randomization, all participants then completed a more detailed baseline safety screen (see Appendix B).

Conduct of the Study

Control Condition: EUC- Pamphlet.

If randomized to the EUC condition, the parent and child were told what were their incorrect safety behaviors and handed a pamphlet describing proper seat belt use and other pamphlets relating to other poor safety behaviors if appropriate.

Intervention Condition: SBBI

If randomized to the SBBI the following took place:

Introduction: Once the more detailed survey was completed, the research assistant began the intervention with the age appropriate booklet. The youth and his or her parents indicated the activities in life he or she enjoyed (e.g., social life, health, education, money, after school activities, etc.), in order to establish a positive framework for the session. Next, the feedback phase was performed. This involved presenting individualized responses from the screening and baseline questions as well as general information regarding where the participant's experience fit into the population norms regarding seat belt use and safety.

Choices and Changes: Costs and Benefits. This part focused on potential changes with regard to "risky behaviors" for seat belt use. The research assistant focused on "developing a discrepancy" between participants' goals and involvement with identified risk factors.

Safer Choices Scenarios: The research assistant led the family through the scenarios making comments, providing observations, and posing questions. The process of the family evaluating and identifying options was designed to increase a sense of responsibility and investment regarding choices and to enhance self-efficacy. The choice of which scenarios each family receives was tailored depending on age, gender, and baseline information.

Closing and Tailored Plan: This section was designed for the family to link choices/options identified in the prior section with a behavioral plan to address its unique risk profile. The research assistant gave a final intervention message related to how behavioral change fit in with future goals. This was directed toward both the parents and child. During the closing, the family was thanked for participating in the intervention, reminded to use what it had learned during this program, and given an explanation of follow-up procedures. A post test for the parents and child was then administered.

Follow up: Telephone follow-up occurred at one month. This relatively short follow-up was chosen because seat belt use is a frequent daily behavior and due to the constraints of grant funding.

Measures

A number of measures were used in this study. Below is a description of the measures and the target audience to whom they were directed. Baseline is considered at the time of screening and randomization.

All participants

Screen: A simple previously-used and published parent/child safety prevalence screen was used to assess general safety practices and knowledge including seat belt use.^{4,6,18} This questionnaire also assessed knowledge, attitudes, and reasons for not using a seat belt.

Post Test: Knowledge assessment as related to the information in the intervention.

Youths age 11-14 and their parents

Stage of Change: The eight-item Stage of Change Algorithm has true/false items and future intentions into one of the stages of change: precontemplation, contemplation, preparation action and maintenance. Readiness to change was also assessed using a stages-of-change “ruler”¹⁹ (see Appendix C).

Self-Efficacy: Self-efficacy- confidence in ability to avoid risk situations were assessed using five items (Cronbach alpha = 0.85).^{20,21} For example, “How sure are you that you would always wear a seatbelt that made you uncomfortable?” These were evaluated through the safer choices scenarios.

Behavioral Intentions: Behavioral intentions were assessed using two items adapted from the substance abuse literature. For example, “If you had a chance to ride in a car without a seat belt, would you do it?”, and 2) “Do you think when you are older it would be cool to ride without a seat belt?”

Parent only

Parenting Sense of Competency Scale: A 16-item version of this questionnaire was used to assess parents’ views of their competence as parents on two dimensions: (a) satisfaction with their parenting role; and (b) feelings of efficacy as a parent. The total score shows a satisfactory ($\alpha=0.79$) level of internal consistency.^{22,23}

Child only

Injury Data: All trauma patients admitted to the hospital are registered in the University of Michigan Trauma Registry database and electronic medical record. Data elements included historical information with respect to the nature, mechanism and extent of the injury, as well as calculated injury severity scores (ISS), ICD-9 (diagnosis) codes and E-codes (external causes of injury codes). The ISS of each hospitalized trauma patient is automatically determined by the trauma registrar. The ISS is an anatomical scoring system that provides an overall score for patients with multiple injuries. Each injury is assigned an Abbreviated Injury Scale (AIS) score and is allocated to one of six body regions (head, face, chest, abdomen, extremities including pelvis). Only the highest AIS score in each body region is used. The three most severely injured body regions have their score squared and added together to produce the ISS score. The ISS score takes values from 0 to 75. If an injury is assigned an AIS of 6 (maximal severity), the ISS score is automatically assigned to 75. The ISS score correlates with mortality, morbidity, hospital stay and other measures of severity.

Table 1 shows the timeline for when the measures were either performed or collected.

Measure	After eligibility and randomization. At the time of the intervention (Baseline)	At follow up
Safety Survey	X	X
Post Test	X	
Injury Data	X	
Stages of Change	X	X
Self Efficacy	X	X
Behavior Intentions	X	X

Table 1: Time periods in which measures were administered/collected.

Experimental Outcomes

The primary outcome for this study was (for the child):

- Seat belt use at one month following the intervention

The secondary outcomes were:

- Attitude and knowledge and commitment to change at one month following the intervention;
- Self efficacy (behavior intentions) at one month following the intervention;
- Booster seat use at one month following the intervention;
- Parenting sense of competency at baseline and one month following the intervention;
- Child positioning in a car one month after the intervention.

Analysis

Data were double entered into a Microsoft Access data base and then transferred to a form usable by a statistical software package (SPSS). Behavior change from baseline to follow-up was compared between the SBBI intervention and EUC (control condition). Behavioral change was also assessed within each treatment condition comparing baseline to follow up. In addition, analyses of a change in attitudes, knowledge, self efficacy, and factors that predicted a positive seat belt use were also performed. Answers to each question were given numerical values that represented responses to questions (see Appendix B). These numbers were used for the analysis and are expressed in the tables that follow. Specific behavioral questions were analyzed individually while questions that pertained to a specific area (commitment to change and attitudes) were analyzed both independently and as a group scale. Descriptive statistics, paired and independent t-tests, and logistic regression were used to statistically analyze the data, with p values less than 0.05 being considered statistically significant.

Results

Patient Accrual and Demographics

Between April 2009 and October 2009, 301 children were eligible to participate in the study. Two hundred and thirty eight (79.1%) were screened, and 166 (69.7%) met one or more of the eligibility criteria for inclusion. One hundred and thirty agreed to be included, and 115 (89.15%) completed follow up. Patient flow diagrams can be found in Appendix D.

A child could have had one or more conditions to become eligible for the study. Forty-one children were eligible “for not always wearing a seat belt”, 15 (less than eight years old) for “not always using a booster seat” and 121 (less than 13 years old) for “not always sitting in the back seat of a car.” There were 84 males and 46 females with average age of 9.8+/-2. The average ISS was 6.2+/-0.67. Table 2 shows the age, gender, and race of the two samples and statistical comparisons. Other than a difference in age 10.6 (eligible) compared to 9.8 (participated) there was no difference or bias found between the two groups.

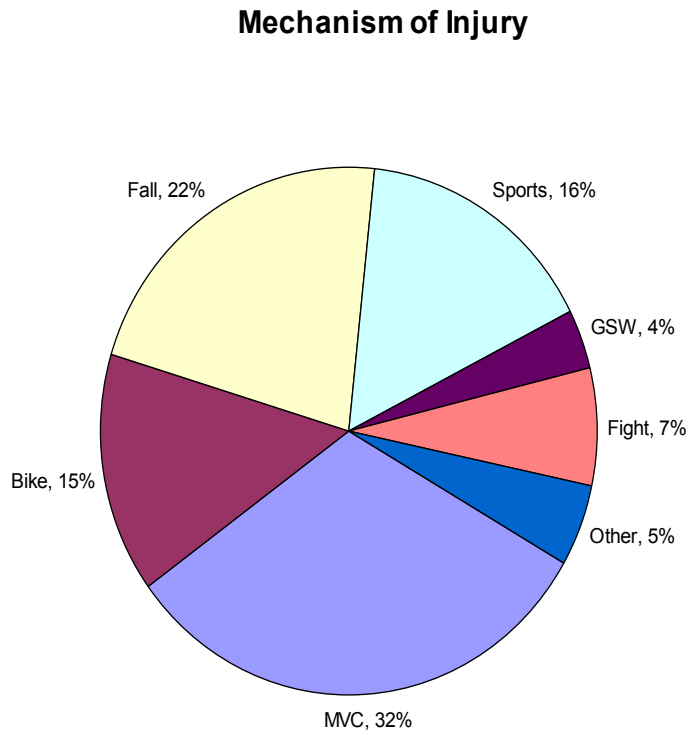
Variables	Screening sample (n = 238)	Baseline sample (n = 130)	Test Statistics
Age, mean (SD) median	10.6 (2.4) 11.0	9.8 (2.0) 10.0	t = 27.7, 130 df p < 0.0001
Gender, n (%) Male Female	152 (63.9%) 86 (36.1%)	84 (64.6%) 46 (35.4%)	$\chi^2 = 0.02$, 1 df p = 0.886
Race, n (%) White Black Other	195 (81.9%) 29 (12.2%) 14 (5.9%)	107 (82.3%) 16 (12.3%) 7 (5.4%)	$\chi^2 = 0.04$, 2 df p = 0.981

Table 2: Comparison of eligible subjects and those who participated in the study.

Mechanism of Injury.

A motor vehicle crash or a fall accounted for over 50% of the mechanisms of injury. Figure 1 (the pie graph) below shows the various injury mechanisms of the study participants. (GSW= gunshot wound)

Figure 1



Seat Belt use at one month following the intervention

In this study, 41 children did not always use a seat belt. Twenty one were randomized to the SBBI and 20 to the EUC-control condition. At the one month follow-up, 23 of the 41 children who participated due to not always using a seat belt changed their self-reported belt use to “always using a seat belt.” Thirteen who changed were in the SBBI group, and 10 of whom changed were in the EUC control group. Although there was a trend toward more seat belt use in the SBBI, this did not reach statistical significance (p=0.06).

A logistic regression was performed to identify the significant factors that produced positive change in seat belt use. Readiness to change at baseline was the strongest predictor of seat belt use change (p<0.001), followed by participating in the SBBI (p<0.05). The factors affecting readiness to change included female gender (p<0.05) and no public assistance (p=0.02). Younger age strongly correlated with readiness to change [$r^2= 0.950(+/-0.21)$]. Race and injury severity did not impact behavior change.

Attitudes, knowledge, commitment to change and self efficacy at one month following the intervention.

Comparison between SBBI and EUC group at one month follow-up

Although significant positive behavioral changes from baseline were noted at the one month followed up (for youth) there was no significant difference between SBBI or EUC group with respect to the degree of changes. Questions on behavior intentions were combined. Table 3 presents a representative sample of these results.

Variable	SBBI Follow-up (n = 57) mean (SD)	EUC- control Follow-up (n = 58) mean (SD)	Significance
People in back seat don't have to wear seat belt	1.65 (0.9)	1.90 (0.9)	ns
If you know driver you don't have to wear seat belt	1.46 (0.7)	1.62 (0.6)	ns
Children under age 12 can sit in front seat	2.79 (1.2)	2.84 (1.1)	ns
More than 1 person can sit in same seat belt	2.11 (1.0)	2.26 (1.1)	ns
Behavior Intention Positive	22.32 (3.4)	22.57 (2.4)	ns
Behavior Intention Overcome Barriers	17.05 (3.9)	17.12 (3.1)	ns
Readiness to Change	9.02 (1.9)	9.23 (1.2)	ns
Commitment to change	45.68 (5.9)	45.12 (5.4)	ns

Table 3: Between Group Comparisons at follow- up

Comparison between Baseline and Follow up within each group.

Knowledge, self efficacy (assessed through behavioral intentions), and commitment to changing seat belt use significantly improved in both the intervention groups but in different domains. These results are shown in Table 4.

Table 4: Youth Seat belt, attitude, knowledge, self efficacy and commitment.						
Variable	SBBI			EUC		
	Baseline (n = 65)	Follow-up (n = 57)		Baseline (n = 65)	Follow-up (n = 58)	
	mean (SD)	mean (SD)	<i>p-value</i>	mean (SD)	mean (SD)	<i>p-value</i>
Seat belt Attitudes Scale	8.55 (2.4)	8.00 (2.7)	ns	9.18 (2.6)	8.62 (2.5)	ns
People in back seat don't have to wear seat belt	1.75 (1.0)	1.65 (0.9)	ns	1.94 (1.0)	1.90 (0.9)	ns
If you know driver you don't have to wear seat belt	1.65 (0.8)	1.46 (0.7)	0.02	1.83 (1.1)	1.62 (0.6)	ns
Children under age 12 can sit in front seat	2.94 (1.1)	2.79 (1.2)	ns	2.98 (1.1)	2.84 (1.1)	ns
More than 1 person can sit in same seat belt	2.22 (1.1)	2.11 (1.0)	ns	2.43 (1.1)	2.26 (1.1)	0.08
Behavior Intention Positive	21.72 (3.9)	22.32 (3.4)	ns	21.75 (3.0)	22.57 (2.4)	0.028
Behavior Intention Overcome Barriers	16.52 (4.3)	17.05 (3.9)	ns	16.31 (4.4)	17.12 (3.1)	0.028
Readiness to Change	8.62 (2.2)	9.02 (1.9)	0.04	8.83 (1.9)	9.23 (1.2)	0.048
Commitment to Change	44.74 (6.3)	45.68 (5.9)	0.038	44.31 (7.4)	45.12 (5.4)	ns

A logistic regression was performed to identify the significant factors that produce a change in positive attitudes, increase knowledge, and commitment to improving seat belt use. The significant factors identified were participating in SBBI intervention, younger age, and readiness to change ($p < 0.05$). A positive change in behavior, attitudes, increased knowledge and commitment to change strongly correlated [$r^2 = 1.0000$ (+/- 0.16)].

Other Seat Belt Related Results

- The most significant factor that predicted whether a child used a seat belt was whether his or her parent used a seat belt ($p=0.0001$).

Booster Seat Use

There were 32 children younger than eight years old in this study, and 15 were eligible because they were not always using a booster seat. Six were randomized to the SBBI intervention and 8 were randomized to the EUC control group. At one month follow-up, 83% were using a booster seat in the SBBI group and 0% in the EUC control group were using booster seats.

Parents Belt Use

In this pilot study, we showed that parents would participate in the intervention and were accessible at follow-up for this study. Similar to the youth results, there were no significant differences between SBBI or EUC control group with respect to attitudes, knowledge, or commitment to change, between or within groups at the one month follow up. Interestingly, as shown in Table 5, at the one month follow-up parental seat belt use improved in both groups, with the EUC group reaching significance.

Variable	SBBI			EUC		
	Baseline (n = 65)	Follow-up (n = 57)		Baseline (n = 65)	Follow-up (n = 58)	
	mean (SD)	mean (SD)	p-value	mean (SD)	mean (SD)	p-value
How often do you wear seat belt when passenger	3.77 (0.58)	3.68 (0.77)	ns	3.80 (0.56)	3.68 (0.57)	0.03

Table 5: Comparison between study groups on self-reported belt use at the 1-month follow up.

Parenting Sense of Competency

Six questions adapted from the parenting sense of competency scale were assessed at baseline and at the one month follow up. The answers to these questions did not correlate with a positive or negative behavior change, attitude, or knowledge acquisition or self efficacy.

Child Seating Positioning

One hundred and twenty-one children (less than 13 years old) participated in the study for “not always sitting in the back seat of a car.” At one month follow up, 54 (44.6%) were now always sitting in the back seat of the car by self-report. Both groups showed changes, but a significantly higher number of children who received the SBBI (12% [$p<0.01$]) changed their behavior as compared to the control group. Table 6 shows the outcomes of the SBBI group compared to control group on improving correct positioning of a child. Table 7 shows the comparison between baseline to follow up for the SBBI and the EUC condition.

Variable	SBBI	EUC- control	Significance
How often sit in front seat?	1.14 (1.05)	1.30(.96)	0.01

Table 6: Comparison of change in seating position between study groups.

Variable	SBBI			EUC		
	Baseline (n = 65)	Follow-up (n = 57)	Time	Baseline (n = 65)	Follow-up (n = 58)	Time
	mean (SD)	mean (SD)	<i>p</i> - <i>value</i>	mean (SD)	mean (SD)	<i>p</i> - <i>value</i>
How often sit in front seat?	1.57 (1.02)	1.14 (1.05)	0.006	1.48 (1.02)	1.30 (0.96)	0.003

Table 7: Comparison between baseline to follow up for the SBBI and the EUC condition on seating position.

Discussion

This pilot study accomplished a number of important goals with respect to understanding part time seat belt use. The screening instrument clearly identified a subset of people who are at high risk for part time seat belt use and other poor safety behaviors. The study demonstrated that SBBI was feasible and acceptable to participants. This is one of the few studies that addressed both parents and youth in an intervention. Most studies that have included a parent component have separated the intervention for the youth and the parent. We did a combined intervention. The intervention was age and developmentally appropriate for both youth and parents. Youth ages 7 to 14 were selected for this intervention because youth use seat belts less often than adults; conversely, a major reason why youth use a seat belt is based on their parents' practices. Thus, this intervention capitalized on the identification of a subset of high risk part time seat belt users, at an age and developmental time of parental influence combined with an unique opportunity (injury) and location (hospital trauma setting).

The primary aim of this study was to develop an intervention to improve part time seat belt use. Both the EUC and SBBI group improved seat belt use but there was no statistical difference between the two conditions. One possible explanation is that our "control condition" turned out to actually be an intervention in its own right. The usual standard of care following a trauma is to strictly focus on the medical injuries. The patient is discharged home when they are ready. No assessment of seat belt use or other safety practices is performed. For this pilot study we felt that if seat belt use was being assessed and if it was found that a child was not always using a seat, that doing nothing was not ethical or acceptable (this was also required by the IRB). Our EUC condition did involve screening, but also baseline questions and an explanation of the pamphlets plus their safety practices. This is clearly different than the typical standard. Other studies using brief intervention methodology have also observed this phenomenon.^{24,25} It is possible that this study compared two interventions rather than an intervention control

condition. An alternative explanation may be that just screening with a baseline assessment plus a pamphlet will improve part time seat belt use in children

Specifically focusing on injured children and seat belts, both interventions significantly improved seat belt use at the one month follow up (23/41-56%). However, comparing each intervention's effectiveness in improving seat belt use, there was no significant difference between them. There was a trend noted toward the SBBI being more effective than the EUC. A larger sample size may show that the SBBI is better. This is partially supported by the results when examining the impact of the interventions on changing seat location from the front seat to the back seat. The SBBI was significantly more effective than the pamphlet intervention with a larger sample size tested 121 compared to 41.

Being in the SBBI group was a significant factor for positive attitudes, increased knowledge and commitment to improving seat belt use. A person's stage of change has been identified as a possible key factor for effectiveness of an intervention. This was assessed at baseline. Readiness to change at baseline was the strongest predictor followed by the booklet/brief intervention in predicting a desired change in safety practices.

We noted the impact that a parent's practice had on the child's seat belt use. The study was not powered or designed to test whether the presence or absence of a parent at the intervention enhances or hinders treatment effect. However, this is an important issue and one that has been difficult to address because of the paucity of data on interventions that target both young people and their parents

Another compelling result of this intervention comes from the secondary results. Booster seat use improved in the SBBI group but not in the EUC. More and more states are now passing or preparing to pass booster seat laws for children less than eight. The CDC recommends that children who are younger than 13 be seated in the back seat of cars. Both groups reported more frequently sitting the child in the back seat of cars, but a significantly higher number of children who received the SBBI changed their behavior.

Future Study Needs and Recommendations

There are important reasons why injury prevention efforts should take place in the acute care setting. Behavioral interventions have historically relied heavily upon primary care providers. However, research shows that even if a child has a primary care provider, it cannot be taken for granted that the provider will address risky behaviors. Young people presenting to a trauma center for treatment following an injury event are a group that should be targeted for intervention for the following reasons: 1) These young patients, more than others, may be engaging in high risk behavior; and 2) The immediate post-injury period may be a "teachable moment" for the implementation of measures to counter at-risk behavior. The teachable moment is based on the concept that the post injury time period may be a unique opportunity during which a person may be particularly susceptible to interventions that prevent future injuries. The teachable moment can be used for any risk-taking behavior and does not necessarily have to be focused on the condition that brought the person to medical attention. Therefore, a seat belt intervention with a youth seeking care for non-MVC related injury may still benefit substantially

We find the results of this study compelling. However, we recommend that the concept of the seat belt brief intervention needs to be explored in a larger more diverse sample. Our population reflected the local area and was primarily White with 10% African-American representation. This is due to the fact that this was a pilot study.

Readiness to change at baseline was the strongest predictor (followed by the brief intervention) in predicting a desired change in safety practices. Readiness to change correlated

significantly with lower age, gender (female) and parents not on public assistance. However, a more formal and detailed understanding of what impacts readiness to change would allow for development of more effective interventions to improve seat belt use.

The impact of a parent at the intervention needs to be further elucidated. Questions include whether the parent presence enhances a change in behavior or hinders a desired behavior change must addressed. Is the parent impact age or gender dependent? A preliminary assessment of what parent characteristics impact behavior change was attempted with using the parenting sense of competency scale however the results were inconclusive.

The use of technology has been increasingly more important to access populations and deliver health care messages. Brief intervention approaches mesh well with youth developmental issues. The translation of intervention programs to a computerized brief intervention approach (that does not require additional staff time to deliver) would be desirable, practical, and potentially cost-effective. Computers are being successfully used to deliver health information in and are well suited to technology savvy youth. We recommend that the role of technology to enhance the effect of an intervention be explored.

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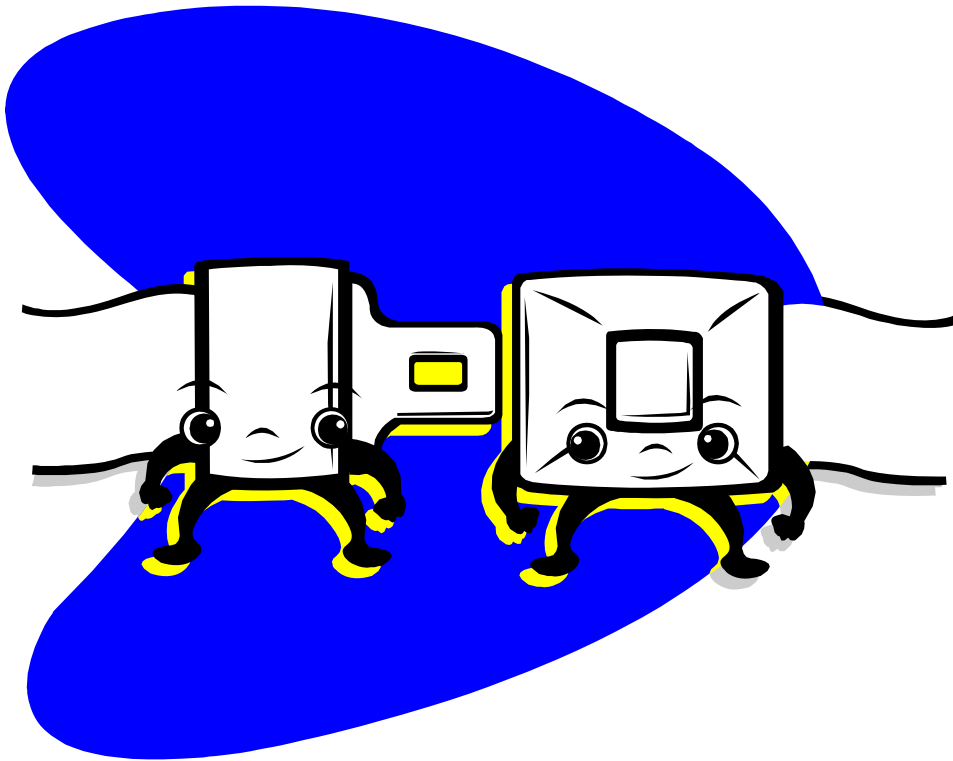
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Appendix A: Intervention Booklet

Understanding the Importance of Seatbelt Use for Families



Introduction

Thank you for agreeing to help us out with our study. We hope you are feeling better soon. We would like to share some information with you about wearing a seatbelt. We hope you will find this information helpful when deciding to wear a seatbelt.

Everything you tell is confidential; we will not share your information with the nurses or doctors.

MY FUTURE GOALS:

We would like to get to know you both better before we review the booklet.

Things that are important to me (child)	Things that are important to me (parent)
Goals I have for myself	Goals I have for (child)

Thank you for sharing what is important to you and some of the goals you have.

Now let's review some of the answers you shared with us about your own seatbelt usage.

WHAT YOU TOLD US ABOUT WEARING SEATBELTS:

_____ shared that he/she _____ wears his/her seatbelt.
(child)

_____ shared that _____ wears his/her seatbelt.

(parent)

(child)

_____ shared that he/she _____ wears his/her seatbelt.
(parent)

_____ shared that he/she _____ sits in the front seat.
(child)

_____ shared that _____ sits in the front seat.
(parent) (child)

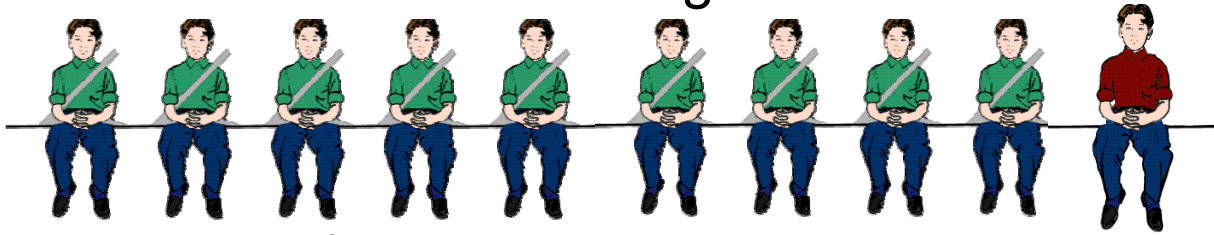
Let's review what we just talked about.

Now with your permission we would like to share some educational graphs with you.

DID YOU KNOW?:

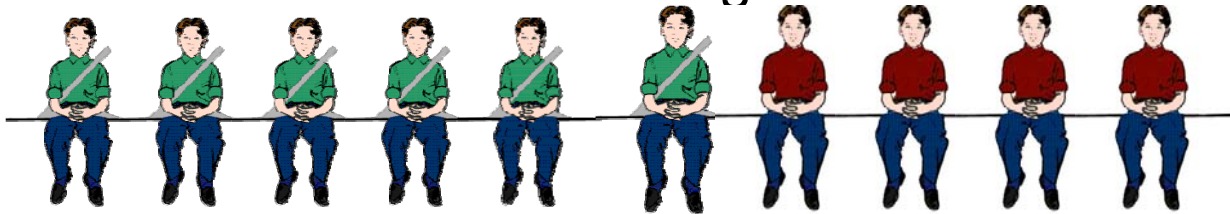
Number of youth out of 10 who are wearing a seatbelt if...

Parent wearing a seatbelt



9 of 10 will be wearing their seatbelt

Parent not wearing seatbelt



6 of 10 will be wearing their seatbelt

Do you have any questions or thoughts about this graph?

Number of people out of 10 who were injured if...

They were wearing a seat belt



1 out of 10 were injured

They were *not* wearing a seat belt



5 out of 10 were injured

Do you have any questions or thoughts about the graphs we just reviewed?

Did you know?:

Research recommends that children be at least 13 years old before sitting in the front seat.

These kids got hurt while sitting in the *front* seat of a car



These same kids are now sitting in the *back seat*



So, a child's injury risk is reduced by 33% when they are moved from the front seat to the back seat!

Do you have any questions or thoughts about this graph?

REASONS FOR WEARING YOUR SEATBELT:

Reasons I should always wear my seatbelt (Child)	Reasons I should always wear my seatbelt (Parent)

--	--

How ready are you to start wearing your seatbelt all the time?

On a scale from 0-10 where 0 is not at all ready and 10 is extremely ready.

(child)_____ (parent)_____

(child): So, why did you pick _____ instead of _____(pick a lower number)?

(parent): So, why did you pick _____ instead of _____ (pick a lower number)?

Now we would like to review whether you identified and barriers to always wearing your seatbelts.

- If a safety belt is uncomfortable
- If you are only driving near your house
- If the weather isn't bad
- If it wrinkles your clothes
- If your parent is a good driver
- If someone makes fun of you
- If other people are not wearing their seatbelt
- If other adults tell you that you don't have to wear a seatbelt

Great, I would like to review what you have shared with me so far and then we would like to have you both practice some different situations that come up and see how you might decide to handle them.

Choices: 8-12 Years Old

There are times where you might be put in a situation where you have to make a choice to do the safe thing. Here are some potential scenarios to think about. For each, try to decide what you would do to keep yourself safe.

You are being picked up at school or an event. There are lots of cars around and the driver is in a rush. They start to move and you do not have a seat belt on.

What would you do?

You are lucky and you go to a big city (e.g. New York). You are getting into a taxi, and the driver is in a hurry. There are not enough seat belts that work.
What would you do?

A friend's parent is picking you up to go to a soccer game. You are sitting in the back seat and there is no middle seat belt.
What would you do?

You are told to sit in the front seat of a car.
What would you do?

Safer Choices: Parents

There are times where you might be put in a situation where you have to make a choice to do the safe thing. Here are some potential scenarios to think about. Let's think about what you could do to keep your child safe.

You are picking up your child from school or an event. There are lots of cars around and you are in a hurry to get home. You start to move the car and your child does not have a seat belt on.

What would you do?

You take the family on vacation to New York City. You are getting into a taxi, and the driver is in a hurry. There are not enough seat belts that work for you and your child/children.

What would you do?

Another parent is picking your child up to go to a soccer game. Your son/daughter is sitting in the back seat and there is no middle seat belt. **OR** too many children to buckle all of them in correctly. **OR** Your child is less than 8 years old and/or under 4'9" tall. He/she is going to be picked up by a family friend. How would you ensure:

- 1) Your child has a booster seat to use in the car?

- 2) Your child sits in the back seat of the car?

- 3) Your child wears a seatbelt?

- 4) The driver understands these issues when driving your child?

Change Plan Worksheet

The changes I want to make are:

The most important reasons why I want to make these changes are:

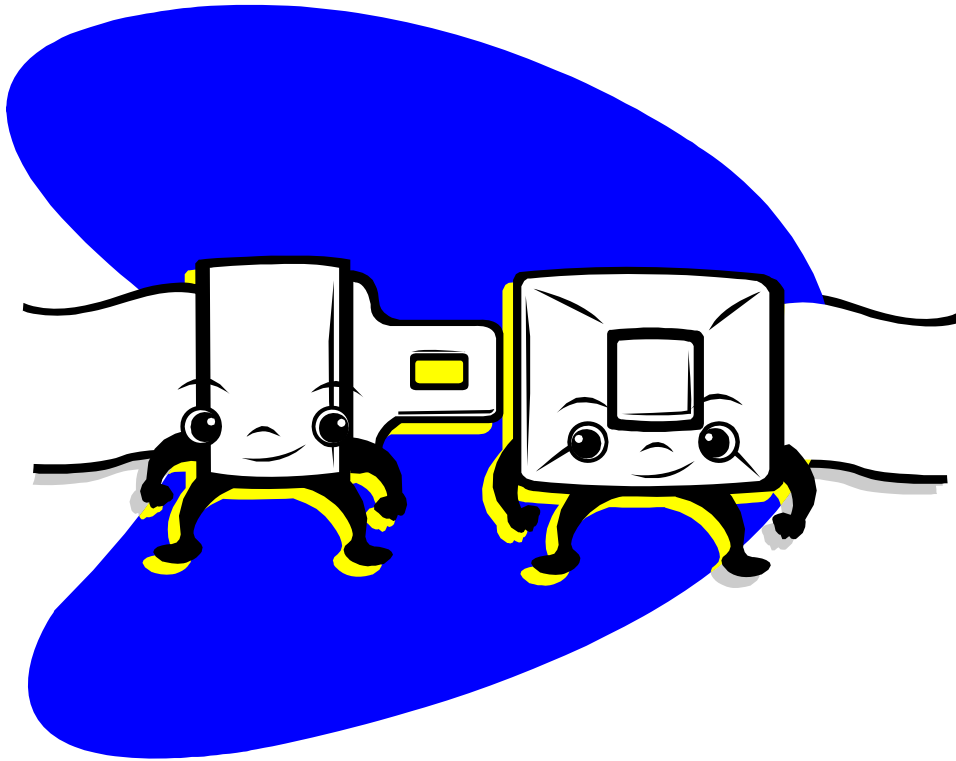
Some things that could interfere with my plan are:

The steps I plan to take in changing are:

The ways other people can help me are:

I will know that my plan is working if:

Understanding the Importance of Seatbelt Use for Families



Introduction

Thank you for agreeing to help us out with our study. We hope you are feeling better soon. We would like to share some information with you about wearing a seatbelt. We hope you will find this information helpful when deciding to wear a seatbelt.

Everything you tell is confidential; we will not share your information with the nurses or doctors.

MY FUTURE GOALS:

We would like to get to know you both better before we review the booklet.

Things that are important to me (child)	Things that are important to me (parent)
Goals I have for myself	Goals I have for (child)

Thank you for sharing what is important to you and some of the goals you have.

Now let's review some of the answers you shared with us about your own seatbelt usage.

WHAT YOU TOLD US ABOUT WEARING SEATBELTS:

_____ shared that he/she _____ wears his/her seatbelt.
 (child)

_____ shared that _____ wears his/her seatbelt.
 (parent) (child)

Subject ID _____ Date _____

RA ID _____

_____ shared that he/she _____ wears his/her seatbelt.
(parent)

_____ shared that he/she _____ sits in the front seat.
(child)

_____ shared that _____ sits in the front seat.
(parent) (child)

_____ shared that he/she _____ sits in a booster seat.
(child)

_____ shared that _____ sits in a booster seat.
(parent) (child)

Let's review what we just talked about.

Now with your permission we would like to share some educational graphs with you.

DID YOU KNOW?:

Number of youth out of 10 who are wearing a seatbelt if...

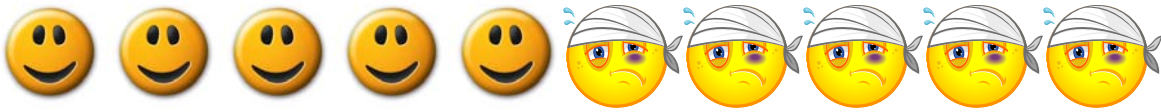


Do you have any questions or thoughts about this graph?

Number of people out of 10 who were injured if...



They were *not* wearing a seat belt



5 out of 10 were injured

Do you have any questions or thoughts about the graphs we just reviewed?

Did you know?:

The Michigan law requires all children under the age of 8 to be properly restrained in an approved child safety seat or booster seat, unless 4'9" tall.

Do you have any questions or thoughts about this law?

Did you know?:

Research recommends that children be at least 13 years old before sitting in the front seat.

These kids got hurt while sitting in the *front* seat of a car



These same kids are now sitting in the *back seat*



So, a child's injury risk is reduced by 33% when they are moved from the front seat to the back seat!

Do you have any questions or thoughts about this graph?

So this is what we have talked about so far:

REASONS FOR WEARING YOUR SEATBELT:

Reasons I should always wear my seatbelt (Child)	Reasons I should always wear my seatbelt (Parent)

--	--

How ready are you to start wearing your seatbelt all the time?

On a scale from 0-10 where 0 is not at all ready and 10 is extremely ready.

(child) _____ (parent) _____

(child): So, why did you pick _____ instead of _____ (pick a lower number)?

(parent): So, why did you pick _____ instead of _____ (pick a lower number)?

Now we would like to review whether you identified and barriers to always wearing your seatbelts.

- If a safety belt is uncomfortable
- If you are only driving near your house
- If the weather isn't bad
- If the seat belt wrinkles your clothes
- If your parent is a good driver
- If someone makes fun of you
- If other people are not wearing a seatbelt
- If other adults tell you that you don't have to wear a seatbelt

Great, I would like to review what you have shared with me so far and then we would like to have you both practice some different situations that come up and see how you might decide to handle them.

Choices: 7 Years Old

There are times where you might be put in a situation where you have to make a choice to do the safe thing. Here are some potential scenarios to think about. For each, try to decide what you would do to keep yourself safe.

You are being picked up at school or an event. There are lots of cars around and the driver is in a rush. They start to move and you do not have a seat belt on.

What would you do?

You are lucky and you go to a big city (e.g. New York). You are getting into a taxi, and the driver is in a hurry. There are not enough seat belts that work.

What would you do?

A friend's parent is picking you up to go to a soccer game. You are sitting in the back seat and there is no middle seat belt.

What would you do?

You are told to sit in the front seat of a car.

What would you do?

Safer Choices: Parents

There are times where you might be put in a situation where you have to make a choice to do the safe thing. Here are some potential scenarios to think about. Let's think about what you could do to keep your child safe.

You are picking up your child from school or an event. There are lots of cars around and you are in a hurry to get home. You start to move the car and your child does not have a seat belt on.

What would you do?

You take the family on vacation to New York City. You are getting into a taxi, and the driver is in a hurry. There are not enough seat belts that work for you and your child/children.

What would you do?

Another parent is picking your child up to go to a soccer game. Your son/daughter is sitting in the back seat and there is no middle seat belt. **OR** too many children to buckle all of them in correctly. **OR** Your child is less than 8 years old and/or under 4'9" tall. He/she is going to be picked up by a family friend. How would you ensure:

5) Your child has a booster seat to use in the car?

6) Your child sits in the back seat of the car?

7) Your child wears a seatbelt?

8) The driver understands these issues when driving your child?

Change Plan Worksheet

The changes I want to make are:

The most important reasons why I want to make these changes are:

Some things that could interfere with my plan are:

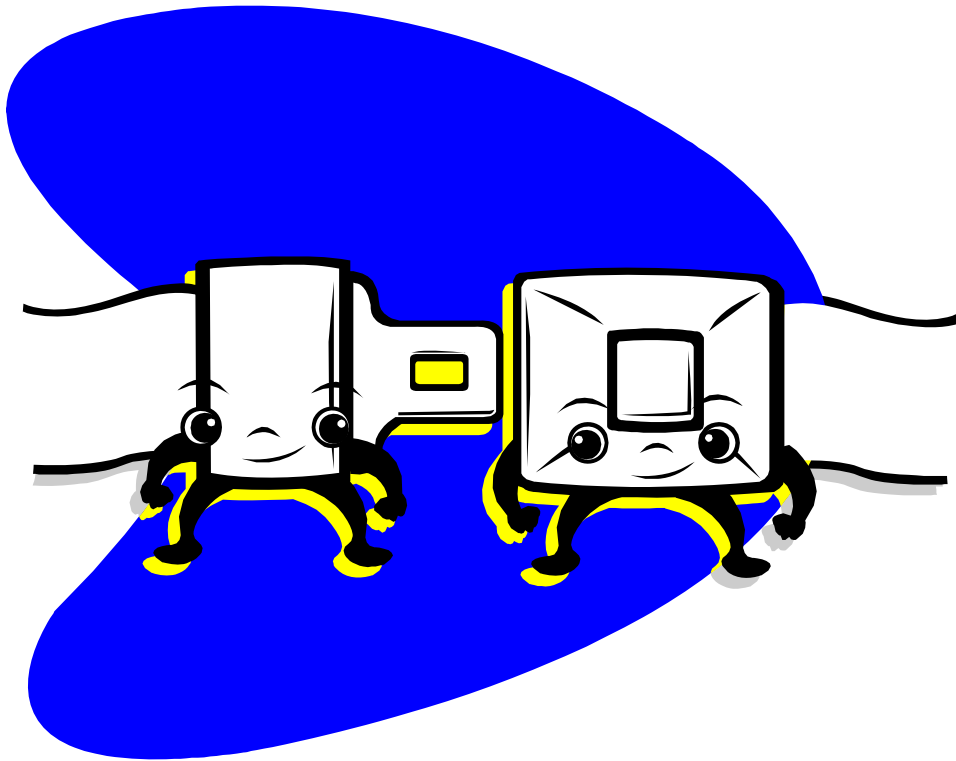
The steps I plan to take in changing are:

The ways other people can help me are:

I will know that my plan is working if:

Intervention Booklet 13-14 year olds

Understanding the Importance of Seatbelt Use for Families



Introduction

Thank you for agreeing to help us out with our study. We hope you are feeling better soon. We would like to share some information with you about wearing a seatbelt. We hope you will find this information helpful when deciding to wear a seatbelt.

Everything you tell is confidential; we will not share your information with the nurses or doctors.

MY FUTURE GOALS:

We would like to get to know you both better before we review the booklet.

Things that are important to me (child)	Things that are important to me (parent)
Goals I have for myself	Goals I have for (child)

Thank you for sharing what is important to you and some of the goals you have.

Now let's review some of the answers you shared with us about your own seatbelt usage.

WHAT YOU TOLD US ABOUT WEARING SEATBELTS:

_____ shared that he/she _____ wears his/her seatbelt.
 (child)

_____ shared that he/she _____ wears his/her seatbelt.
(parent) (child)

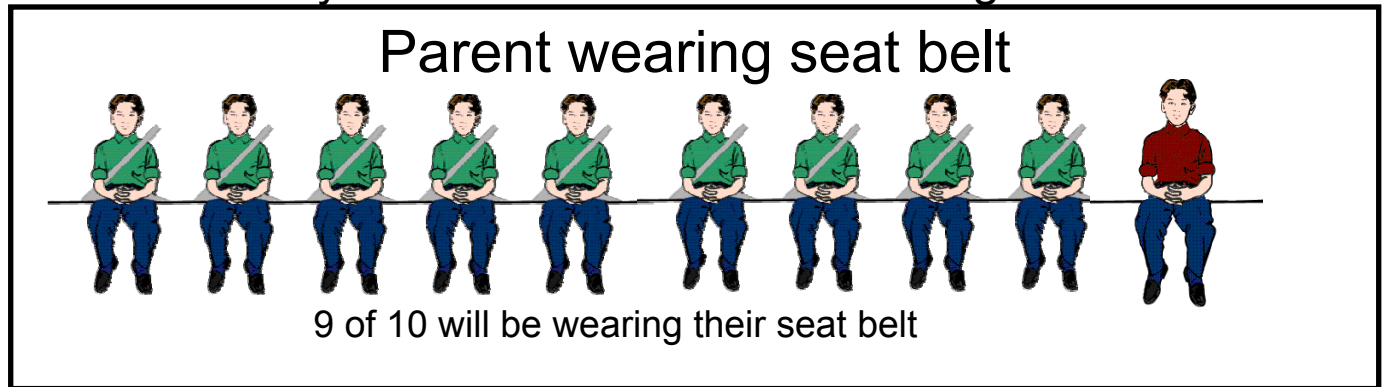
_____ shared that he/she _____ wears his/her seatbelt.
(parent)

Let's review what we just talked about.

Now with your permission we would like to share some educational graphs with you.

DID YOU KNOW?

Number of youth out of 10 who are wearing seat belt if...



Do you have any questions or thoughts about this graph?

Number of people out of 10 who were injured if...

They were wearing a seat belt



1 out of 10 were injured

They were *not* wearing a seat belt



5 out of 10 were injured

Do you have any questions or thoughts about the graphs we just reviewed?

So, this is what we have talked about so far:

REASONS FOR WEARING YOUR SEATBELT:

Reasons I should always wear my seatbelt (Child)	Reasons I should always wear my seatbelt (Parent)

How ready are you to start wearing your seatbelt all the time?

On a scale from 0-10 where 0 is not at all ready and 10 is extremely ready.

(child) _____ (parent) _____

(child): So, why did you pick _____ instead of _____ (pick a lower number)?

(parent): So, why did you pick _____ instead of _____ (pick a lower number)?

Now we would like to review whether you identified and barriers to always wearing your seatbelts.

- If a safety belt is uncomfortable
- If you are only driving near your house

- If the weather isn't bad
- If it wrinkles your clothes
- If your parent is a good driver
- If someone makes fun of you
- If other people are not wearing their seatbelt
- If other adults tell you that you don't have to wear a seatbelt

Great, I would like to review what you have shared with me so far and then we would like to have you both practice some different situations that come up and see how you might decide to handle them.

Safer Choices: 13-14 Years Old

There are times where you might be put in a situation where you have to make a choice to do the safe thing. Here are some potential scenarios to think about. Try to decide what you would do to keep yourself safe.

You are being picked up at school or an event. There are lots of cars around and the driver is in a rush. They start to move and you do not have a seat belt on. What would you do?

You are lucky and you go to a big city (e.g. New York). You are getting into a taxi, and the driver is in a hurry. There are not enough seat belts that work. What would you do?

A friend's parent is picking you up to go to a soccer game. You are sitting in the back seat and there is no middle seat belt. What would you do?

You are out for dinner with a friend's family and the driver of the car has had a lot to drink at dinner. What would you do?

A friend's older brother or sister is driving you to a movie. There are more people in the car than seat belts.
What would you do?

Safer Choices: Parents

There are times where you might be put in a situation where you have to make a choice to do the safe thing. Here are some potential scenarios to think about. Let's think about what you could do to keep your child safe.

You are picking up your child from school or an event. There are lots of cars around and you are in a hurry to get home. You start to move the car and your child does not have a seat belt on.

What would you do?

You take the family on vacation to New York City. You are getting into a taxi, and the driver is in a hurry. There are not enough seat belts that work for you and your child/children.

What would you do?

Another parent is picking your child up to go to a soccer game. Your son/daughter is sitting in the back seat and there is no middle seat belt. **OR** too many children to buckle all of them in correctly. **OR** Your child is less than 8 years old and/or under 4'9" tall. He/she is going to be picked up by a family friend. How would you ensure:

9) Your child has a booster seat to use in the car?

10) Your child sits in the back seat of the car?

11) Your child wears a seatbelt?

12) The driver understands these issues when driving your child?

Change Plan Worksheet

The changes I want to make are:

The most important reasons why I want to make these changes are:

Some things that could interfere with my plan are:

The steps I plan to take in changing are:

The ways other people can help me are:

I will know that my plan is working if:

Appendix B: Survey Instruments

Survey and Screening Instruments

- Child filled out form
- RA read form to child

YOUTH SCREEN

Thank you for helping us out today. We will not tell any hospital staff what you tell us on this form.

1. How old are you? _____ years old 1a. Height: _____(from chart)

2. Are you a boy or a girl? ___boy(1) ___girl(2)

3. How would you describe your ethnicity:

- Not Hispanic/Latino (0)
- Hispanic or Latino (1))

4. How would you describe your race (check all that apply):

- White (1)
- African American/Black (2)
- American Indian/Alaskan Native (3)
- Asian (4)
- Native Hawaiian or Pacific Islander (5)
- Other: _____ (6)

6. Do your parent(s) work? yes(1) no(0)

7. What city/town do you live in? : _____

BICYCLES:

9. Do you have a bike to ride? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 20 on PAGE 3

10. How often do you ride your bike? (check only one box)

Never	Rarely	Sometimes	Often	Everyday
0	1	2	3	4

11. Do you have a bicycle helmet? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 14

12. If yes, how often do you wear helmet?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

13. Does your helmet fit? no(0) yes(1)

14. Does a parent (or guardian) ride bikes with you? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 17

15. If, yes how often does your parent wear a helmet when they ride bikes?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

17. Have you wrecked or crashed your bike? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 19

18. If yes, how many times have they had to see a doctor because you were hurt?

_____Number of times

19. Do you think children should **always** have to wear a bicycle helmet? no(0)

yes(1)

Please go the next page. Remember we will not tell the doctors and nurses what you tell us.

SEATBELT AND SAFETY SEATS

20. Where do you usually sit in your car? front seat (1) back seat (2)

21. How often do you sit in the front seat?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

22. How often do you sit in the back seat?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

23. How often do you wear a seat belt when riding in the car?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

24. How often do you sit in a safety or booster seat in your car? **I'm over 7 ____ N/A(5)**

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

25. When you ride with others (friends/family), how often do you wear a seatbelt?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

26. How often do other children who ride in your car wear a seat belt (for instance when carpooling)?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

27. How often do your parents wear a seat belt when they drive?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

28. How often do your parents wear a seat belt when someone else is driving?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

29. Do you think a child should **always** have to wear a seat belt? no(0) yes(1)

30. Check the boxes below if you think these are reasons NOT to wear your seatbelt:

- A.) If a safety belt is uncomfortable
- B.) If we are only driving near my house
- C.) If the weather isn't bad
- D.) If it will wrinkle my clothes
- E.) If my parent is a good driver
- F.) If someone will make fun of me
- G.) If other people are not wearing a seatbelt
- H.) If other adults tell me I don't have to wear a seatbelt

31. Write down any other reasons you think children should not have to wear seatbelts:

Please give this form to the RA. They will let you know if we want to ask you some other questions.

- Child filled out form RA read form to child

YOUTH BASELINE

Thank you for helping us out. Remember we will not share your answers with the doctors or nurses.

How much do you agree with the following statements?

1. Most people wear a seat belt.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

2. People sitting in the back seat don't have to wear a seat belt.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

3. If you know the driver you don't have to wear a seat belt.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

4. Children under the age of 12 can sit in the front seat.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

5. More than 1 person can sit in the same seat belt ("double buckle").

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

In the next month, how often do you think you will wear your seatbelt

6. when you are on the **highway**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

In the next month, how often do you think you will wear your seatbelt

7. when you are with **friends**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

8. when you are close to **home**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

9. when you are with your **parents**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

10. when you are with **other adults**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

11. when you are an adult?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

How sure are you that you would always wear your seatbelt if:

12. The seat belt made you feel uncomfortable

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

13. Someone made fun of you for wearing a seatbelt

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

14. You were riding in the car with your friends

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

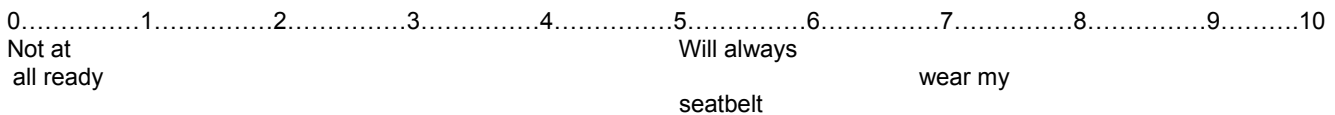
15. No one is paying attention

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

16. You weren't going far from home

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

17. On the ruler below, please circle the number that best describes how ready you are to **always** wear your seatbelt:



How committed are you to always wearing a seatbelt?

18. I do not think wearing a seatbelt is important

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

19. I am trying to wear a seatbelt more often than I used to

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

20. Sometimes I don't wear my seatbelt

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

21. Sometimes I think I should use my seatbelt more often

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

22. It is a waste of time to think about using a seatbelt

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

23. I have just recently decided to always use a seatbelt

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

24. Anyone can talk about wearing a seatbelt but I am actually doing something about it

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

25. I am at a stage where I should think about using a seatbelt

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

26. I worry that if I am in a car crash and I do not have a seatbelt on I may be hurt badly

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

27. There is no need for me to think about using a seatbelt more often

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

28. I am actually changing my seatbelt use right now

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

29. Using a seatbelt would be pointless for me

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

Thank you for your help

- Child filled out form
- RA read form to child

YOUTH POST TEST

How much do you agree with the following statements?

1. Most people wear a seat belt.

Strongly Disagree 1	Disagree 2	Neither 3	Agree 4	Strongly Agree 5
------------------------	---------------	--------------	------------	---------------------

2. People sitting in the back seat don't have to wear a seat belt.

Strongly Disagree 1	Disagree 2	Neither 3	Agree 4	Strongly Agree 5
------------------------	---------------	--------------	------------	---------------------

3. If you know the driver you don't have to wear a seat belt.

Strongly Disagree 1	Disagree 2	Neither 3	Agree 4	Strongly Agree 5
------------------------	---------------	--------------	------------	---------------------

4. Children under the age of 12 can sit in the front seat.

Strongly Disagree 1	Disagree 2	Neither 3	Agree 4	Strongly Agree 5
------------------------	---------------	--------------	------------	---------------------

5. More than 1 person can sit in the same seat belt ("double buckle").

Strongly Disagree 1	Disagree 2	Neither 3	Agree 4	Strongly Agree 5
------------------------	---------------	--------------	------------	---------------------

6. In the next month, how often do you think you will wear a seatbelt when on the **highway**?

Never 0	Rarely 1	Sometimes 2	Most of the time 3	Always 4
------------	-------------	----------------	-----------------------	-------------

7. In the next month, how often do you think you will wear a seatbelt when you are with **friends**?

Never 0	Rarely 1	Sometimes 2	Most of the time 3	Always 4
------------	-------------	----------------	-----------------------	-------------

8. In the next month, how often do you think you will wear a seatbelt when close to **home**?

Never	Rarely	Sometimes	Most of the time	Always
-------	--------	-----------	------------------	--------

0 1 2 3 4

9. In the next month, how often do you think you will wear a seatbelt when you are with your **parents**?

Never Rarely Sometimes Most of the time Always
0 1 2 3 4

10. In the next month, how often do you think you will wear a seatbelt when you are with **other adults**?

Never Rarely Sometimes Most of the time Always
0 1 2 3 4

11. How often do you think you will wear a seatbelt when you are an adult?

Never Rarely Sometimes Most of the time Always
0 1 2 3 4

How sure are you that you would **always** wear your seatbelt if:

12. The seat belt made you feel uncomfortable

Not at all A little Somewhat Very Extremely
0 1 2 3 4

13. Someone made fun of you for wearing a seatbelt

Not at all A little Somewhat Very Extremely
0 1 2 3 4

14. Your were riding in the car with your friends

Not at all A little Somewhat Very Extremely
0 1 2 3 4

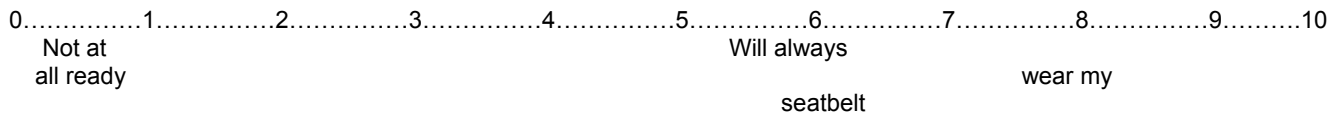
15. No one is paying attention

Not at all A little Somewhat Very Extremely
0 1 2 3 4

16. You weren't going far from home

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

17. On the ruler below, please circle the number that best describes how ready you are to **always** wear your seatbelt:



How committed are you to **always** wearing a seatbelt?

18. I do not think wearing a seatbelt is important

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

19. I will wear a seatbelt more often than I used to

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

20. Sometimes I don't wear my seatbelt

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

21. Sometimes I think I should use my seatbelt more often

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

22. It is a waste of time to think about using a seatbelt

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

23. I have just recently decided to always use a seatbelt

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

24. Anyone can talk about wearing a seatbelt but I have decided to do something about it

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

25. I am at a stage where I should think about using a seatbelt

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

26. I worry that if I am in a car crash and I do not have a seatbelt on I may be hurt badly

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

27. There is no need for me to think about using a seatbelt more often

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

28. I have decided to change my seatbelt use right now

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

29. Using a seatbelt would be pointless for me

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

30. What did you think of the session with the counselor?

- Really didn't like it ----- 1
- Didn't like it ----- 2
- OK ----- 3
- Liked it ----- 4
- Liked it a lot ----- 5

How helpful were the following?		Not at all	A little	Some what	Very	Extremely
31.	Thinking about things that are important to me and my goals for the future.	0	1	2	3	4
32.	Reviewing the reasons to change my seat belt use.	0	1	2	3	4
33.	Going through the role-plays and making choices about what to do in situations where there aren't enough seat belts.	0	1	2	3	4
34.	Reviewing the graphs and pictures	0	1	2	3	4
35.	Completing the Change Plan Worksheet	0	1	2	3	4
36.	It would've been better to talk about these issues without my parent around	0	1	2	3	4

Please detach this last sheet, seal it in the confidential envelope, and return it to the recruiter. Thank you for your help!

YOUTH FOLLOW-UP INTERVIEW

Thank you for helping us out today. We will not tell any hospital staff what you tell us on this form.

1. How old are you? _____ years old 1a. Height: _____ (from chart)

2. Are you a boy or a girl? ___boy(1) ___girl(2)

3. How would you describe your ethnicity:

Not Hispanic/Latino (0)

Hispanic or Latino (1)

4. How would you describe your race (check all that apply):

White (1)

African American/Black (2)

American Indian/Alaskan Native (3)

Asian (4)

Native Hawaiian or Pacific Islander (5)

Other: _____ (6)

5. Do your parents, or the most important person in raising you, receive public assistance?

By public assistance we mean-welfare, Bridge card, EBT, disability benefits, etc.

yes(1) no(0) Don't Know (888)

6. Do your parent(s) work? yes(1) no(0)

7. What city/town do you live in? : _____

8. (Parent Question Only)

BICYCLES:

9. Do you have a bike to ride? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 20

10. How often do you ride your bike? (check only one box)

Never
0

Rarely
1

Sometimes
2

Often
3

Everyday
4

11. Do you have a bicycle helmet? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 14 ON PAGE 2

12. If yes, how often do you wear helmet?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

13. Does your helmet fit? no(0) yes(1)

14. Does a parent (or guardian) ride bikes with you? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 17

15. If, yes how often does your parent wear a helmet when they ride bikes?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

16. (Parent question only)

17. Have you wrecked or crashed your bike? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 19

18. If yes, how many times have they had to see a doctor because you were hurt?

_____Number of times

19. Do you think children should **always** have to wear a bicycle helmet? no(0)
yes(1)

SEATBELT AND SAFETY SEATS

20. Where do you usually sit in your car? front seat (1) back seat (2)

21. How often do you sit in the front seat?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

22. How often do you sit in the back seat?

Never	Rarely	Sometimes	Most of the time	Always
-------	--------	-----------	------------------	--------

0 1 2 3 4

23. How often do you wear seat belt when riding in the car?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

24. How often do you sit in a safety or booster seat in your car? I'm over 7 _____ N/A
(5)

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

25. When you ride with others (friends/family), how often do you wear a seatbelt?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

26. How often do other children who ride in your car wear a seat belt (for instance when carpooling)?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

27. Do your parents **always** wear a seat belt when they drive? yes(1) no(0)

28. Do your parents **always** wear a seat belt when someone else is driving? yes(1)
no(0)

29. Do you think a child should **always** have to wear a seat belt? yes(1) no(0)

30. Please tell us if there are any reasons why children should not have to wear a seatbelt.

(check all the reasons that you agree with)

- If a safety belt is uncomfortable
- If we are only driving near my house
- If the weather isn't bad
- If it will wrinkles my clothes
- If my parent is a good driver
- If someone will make fun of me
- If other people are not wearing a seatbelt

If other adults tell me I don't have to wear a seatbelt

31. Write down any other reasons you think children should not have to wear seatbelts:

How much do you agree with the following statements?

32. Most people wear a seat belt.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

33. People sitting in the back seat don't have to wear a seat belt.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

34. If you know the driver you don't have to wear a seat belt.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

35. Children under the age of 12 can sit in the front seat.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

36. More than 1 person can sit in the same seat belt ("double buckle").

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

37. In the next month, how often do you think you will wear a seatbelt when on the **highway**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

38. In the next month how often do you think you will wear a seatbelt when you are with **friends**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

39. In the next month, how often do you think you will wear a seatbelt when close to **home**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

40. In the next month, how often do you think you will wear a seatbelt when you are with your **parents**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

41. In the next month, how often do you think you will wear a seatbelt when you are with **other adults**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

42. How often do you think you will wear a seatbelt when you are an adult?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

How sure are you that you would always wear your seatbelt if:

43. The seat belt made you feel uncomfortable

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

44. Someone made fun of you for wearing a seatbelt

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

45. You were riding in the car with your friends

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

46. No one is paying attention

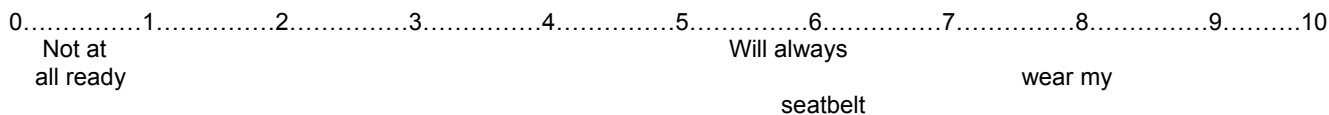
Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

47. You weren't going far from home

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

48. On the ruler below, please circle the number that best describes how ready you are to **always**

wear your seatbelt:



How committed are you to **always** wearing a seatbelt?

49. I do not think wearing a seatbelt is important

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

50. I am trying to wear a seatbelt more often than I used to

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

51. Sometimes I don't wear my seatbelt

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

52. Sometimes I think I should use my seatbelt more often

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

53. It is a waste of time to think about using a seatbelt

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

54. I have just recently decided to always use a seatbelt

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

55. Anyone can talk about wearing a seatbelt but I am actually doing something about it

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

56. I am at a stage where I should think about using a seatbelt

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

57. I worry that if I am in a car crash and I do not have a seatbelt on I may be hurt badly

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

58. There is no need for me to think about using a seatbelt more often

Strongly Disagree 1 Disagree 2 Unsure 3 Agree 4 Strongly Agree 5

59. I am actually changing my seatbelt use right now

Strongly Disagree Disagree Unsure Agree Strongly Agree

1

2

3

4

5

60. Using a seatbelt would be pointless for me

Strongly Disagree
1

Disagree
2

Unsure
3

Agree
4

Strongly Agree
5

Thank you for your help!

PARENT SCREEN

Thank you for helping us out today. We will not tell any hospital staff what you tell us on this form.

1. How old is your child? _____ years old 1a. (From youth screen)

2. What is your child's gender? ___Male(1) ___Female(2)

3. How would you describe your ethnicity:

Not Hispanic/Latino (0)

Hispanic or Latino (1)

4. How would you describe your race (check all that apply):

White (1)

African American/Black (2)

American Indian/Alaskan Native (3)

Asian (4)

Native Hawaiian or Pacific Islander (5)

Other:_____ (6)

5. Do you receive public assistance? By public assistance we mean-welfare, Bridge card, EBT, disability benefits, etc.

no(0) yes(1) Don't Know (888)

6. Do you work? no(0) yes(1)

7. What city/town do you live in? : _____

8. What is your relationship to the child?

(Check one box only) Mother(1) Father(2) Guardian(3)

Please answer the following questions about your child:

BICYCLES:

9. Does your child have a bike to ride? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 20 on PAGE 3

10. How often does your child ride a bike?

Never	Rarely	Sometimes	Often	Everyday
0	1	2	3	4

11. Does your child have a bicycle helmet? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 14

12. If yes, how often do you think they wear their helmet? (Check only one box)

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

13. Does your child's helmet fit? no(0) yes(1)

14. Do you ride bikes with your child? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 17

15. If yes, how often do you wear a helmet when you ride your bike? (Check only one box)

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

16. Does your helmet fit? no(0) yes(1)

17. Has your child wrecked or crashed their bike? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 19

18. If yes, how many times has your child had to seek medical attention for an injury?

_____ Number of times

19. Do you think children should **always** have to wear a bicycle helmet? no(0)

yes(1)

Please go to the next page. Remember everything you tell us is confidential.

SEATBELT AND SAFETY SEATS

20. Where does your child usually sit in your car? front seat(1) back seat(2)

21. How often does your child sit in the front seat?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

22. How often does your child sit in the back seat?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

23. Does your child wear their seat belt when riding in the car?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

24. How often does your child sit in a safety or booster seat in your car? **My child is over**

7 ___ N/A (5)

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

25. When your child rides with others (friends/family), how often does your child wear a seatbelt?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

26. How often do other children who ride in your car wear a seatbelt? (for instance when carpooling)?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

27. How often do you wear your seat belt when you drive?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

28. How often do you wear your seat belt when you ride as a passenger?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

29. Do you think a child should **always** have to wear a seat belt? no(0) yes(1)

30. Check the boxes below if you think these are reasons NOT to wear your seatbelt:

- A.) If a safety belt is uncomfortable
- B.) If we are only driving near my house
- C.) If the weather isn't bad
- D.) If it will wrinkle the child's clothes
- E.) If I am a good driver
- F.) If someone will make fun of the child
- G.) If other people are not wearing a seatbelt
- H.) If other adults tell children they don't have to wear a seatbelt

31. Write down any other reasons why you think children should not have to wear seatbelts:

Please give this form to the RA. They will let you know if we want to ask you some other questions.

PARENT BASELINE

Thank you for taking the time to answer our questions. Remember your answers are confidential.

How much do you agree with the following statements?

1. Most people wear a seatbelt.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

2. It is OK **not** to wear a seatbelt if you are sitting in the back seat.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

3. It is OK to ride in a car without a seatbelt as long as you know the driver.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

4. It is OK to sit in the front seat if you are under 12 years old.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

5. It is OK for more than one person to sit in the same seatbelt.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

In the next month, how often do you think you will wear your seatbelt

6. when on the **highway**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

In the next month, how often do you think you will wear your seatbelt

7. when you are with **your kids**?

Never 0	Rarely 1	Sometimes 2	Most of the time 3	Always 4
------------	-------------	----------------	-----------------------	-------------

8. when you are close to **home**?

Never 0	Rarely 1	Sometimes 2	Most of the time 3	Always 4
------------	-------------	----------------	-----------------------	-------------

9. when you are the **passenger**?

Never 0	Rarely 1	Sometimes 2	Most of the time 3	Always 4
------------	-------------	----------------	-----------------------	-------------

10. when you are with **no kids**?

Never 0	Rarely 1	Sometimes 2	Most of the time 3	Always 4
------------	-------------	----------------	-----------------------	-------------

How sure are you that you would always wear your seatbelt if:

12. The seatbelt made you uncomfortable

Not at all 0	A little 1	Somewhat 2	Very 3	Extremely 4
-----------------	---------------	---------------	-----------	----------------

13. You were in a hurry

Not at all 0	A little 1	Somewhat 2	Very 3	Extremely 4
-----------------	---------------	---------------	-----------	----------------

14. The car didn't have enough seatbelts

Not at all 0	A little 1	Somewhat 2	Very 3	Extremely 4
-----------------	---------------	---------------	-----------	----------------

15. You were in the back seat

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

16. You weren't going far from home

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

17. On the ruler below, please circle the number that best describes how ready you are to **always** wear your seatbelt:

0.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
 Not at Will always
 all ready seatbelt wear my

How committed are you to always wearing a seatbelt?

18. I do not think wearing a seatbelt is important

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

19. I am trying to wear a seatbelt more often than I used to

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

20. Sometimes I don't wear my seatbelt

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

21. Sometimes I think I should use my seatbelt more often

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
-------------------	----------	--------	-------	----------------

1 2 3 4 5

22. It is a waste of time to think about using a seatbelt

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

23. I have just recently decided to always use a seatbelt

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

24. Anyone can talk about wearing a seatbelt but I am actually doing something about it

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

25. I am at a stage where I should think about using a seatbelt

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

26. I worry that if I am in a car crash and I do not have a seatbelt on I may be hurt badly

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

27. There is no need for me to think about using a seatbelt more often

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

28. I am actually changing my seatbelt use right now

Strongly Disagree Disagree Unsure Agree Strongly Agree
1 2 3 4 5

35. Considering how long I've been a mother/father, I feel thoroughly familiar with this role.

Strongly Disagree						Strongly Agree
1	2	3	4	5	6	

36. I honestly believe I have all the skills necessary to be a good mother/father to my child.

Strongly Disagree						Strongly Agree
1	2	3	4	5	6	

Thank you for completing this survey! The research assistant will get the form from you and let you know what will happen next.

PARENT POST TEST

How much do you agree with the following statements?

1. Most people wear a seatbelt.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

2. It is OK **not** to wear a seatbelt if you are sitting in the back seat.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

3. It is OK to ride in a car without a seatbelt as long as you know the driver.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

4. It is OK to sit in the front seat if you are under 12 years old.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

5. It is OK for more than one person to sit in the same seatbelt.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

In the next month, how often do you think you will wear your seatbelt

6. when on the **highway**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

7. when you are with **your kids**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

8. when you are close to **home**?

Never 0	Rarely 1	Sometimes 2	Most of the time 3	Always 4
------------	-------------	----------------	-----------------------	-------------

9. when you are the **passenger**?

Never 0	Rarely 1	Sometimes 2	Most of the time 3	Always 4
------------	-------------	----------------	-----------------------	-------------

10. when you are with **no kids**?

Never 0	Rarely 1	Sometimes 2	Most of the time 3	Always 4
------------	-------------	----------------	-----------------------	-------------

How sure are you that you would **always** wear your seatbelt if:

12. The seatbelt made you uncomfortable

Not at all 0	A little 1	Somewhat 2	Very 3	Extremely 4
-----------------	---------------	---------------	-----------	----------------

13. You were in a hurry

Not at all 0	A little 1	Somewhat 2	Very 3	Extremely 4
-----------------	---------------	---------------	-----------	----------------

14. The car didn't have enough seatbelts

Not at all 0	A little 1	Somewhat 2	Very 3	Extremely 4
-----------------	---------------	---------------	-----------	----------------

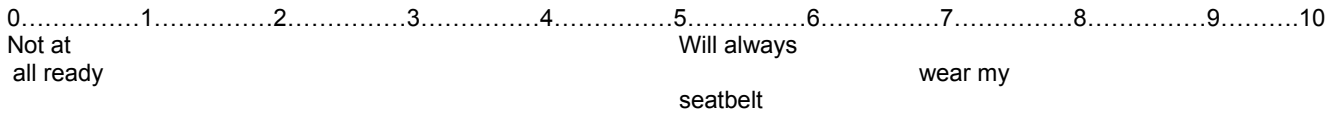
15. You were in the back seat

Not at all 0	A little 1	Somewhat 2	Very 3	Extremely 4
-----------------	---------------	---------------	-----------	----------------

16. You weren't going far from home

Not at all 0	A little 1	Somewhat 2	Very 3	Extremely 4
-----------------	---------------	---------------	-----------	----------------

17. On the ruler below, please circle the number that best describes how ready you are to **always** wear your seatbelt:



How committed are you to **always** wearing a seatbelt?

18. I do not think wearing a seatbelt is important

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

19. I will wear a seatbelt more often than I used to

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

20. Sometimes I don't wear my seatbelt

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

21. Sometimes I think I should use my seatbelt more often

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

22. It is a waste of time to think about using a seatbelt

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

23. I have just recently decided to always use a seatbelt

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

24. Anyone can talk about wearing a seatbelt but I have decided to do something about it

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

25. I am at a stage where I should think about using a seatbelt

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

26. I worry that if I am in a car crash and I do not have a seatbelt on I may be hurt badly

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

27. There is no need for me to think about using a seatbelt more often

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

28. I have decided to change my seatbelt use right now

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

29. Using a seatbelt would be pointless for me

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

30. What did you think of the session with the counselor?

Really didn't like it ----- 1
 Didn't like it ----- 2
 OK ----- 3
 Liked it ----- 4
 Liked it a lot ----- 5

How helpful were the following?

Not at all	A little	Some what	Very	Extremely
---------------	-------------	--------------	------	-----------

31.	Thinking about things that are important to me and the goals I have for my child.	0	1	2	3	4
32.	Reviewing the reasons to change my seat belt use	0	1	2	3	4
33.	Going through the role-plays and making choices about what to do in situations where there aren't enough seat belts for me or my child.	0	1	2	3	4
34.	Reviewing the graphs and pictures	0	1	2	3	4
35.	Completing the Change Plan Worksheet	0	1	2	3	4

Please detach this last sheet, seal it in the confidential envelope, and return it to the recruiter. Thank you for your help!

PARENT FOLLOW-UP

Thank you for helping us out today.

1. How old is your child? _____ years old 1a. (From youth screen)
2. What is your child's gender? ___ Male(1) ___ Female(2)
3. How would you describe your ethnicity:
 - Not Hispanic/Latino (0)
 - Hispanic or Latino (1)
4. How would you describe your race (check all that apply):
 - White (1)
 - African American/Black (2)
 - American Indian/Alaskan Native (3)
 - Asian (4)
 - Native Hawaiian or Pacific Islander (5)
 - Other: _____ (6)
5. Do you receive public assistance? By public assistance we mean-welfare, Bridge card, EBT, disability benefits, etc.
 - yes(1) no(0) Don't Know (888)
6. Do you work? yes(1) no(0)
7. What city/town do you live in? : _____
8. What is your relationship to the child?
(Check one box only) Mother(1) Father(2) Guardian(3)

Please answer the following questions about your child:

BICYCLES:

9. Does your child have a bike to ride? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 20 ON PAGE 2

10. How often does your child ride a bike?

Never	Rarely	Sometimes	Often	Everyday
0	1	2	3	4

11. Does your child have a bicycle helmet? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 14

12. If yes, how often do you think they wear their helmet? (Check only one box)

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

13. Does your child's helmet fit? no(0) yes(1)

14. Do you ride bikes with your child? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 17

15. If yes, how often do you wear a helmet when you ride your bike? (Check only one box)

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

16. Does your helmet fit? no(0) yes(1)

17. Has your child wrecked or crashed their bike? no(0) yes(1)

IF YOU JUST SAID NO: SKIP TO QUESTION 19

18. If yes, how many times has your child had to seek medical attention for an injury?

_____Number of times

19. Do you think children should **always** have to wear a bicycle helmet? no(0)
yes(1)

SEATBELT AND SAFETY SEATS

20. Where does your child usually sit in your car? front seat (1) back seat (2)

21. How often does your child sit in the front seat?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

22. How often does your child sit in the back seat?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

23. How often does your child wear their seat belt when riding in the car?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

24. How often does your child sit in a safety or booster seat in your car? My child is over 7_____ N/A (5)

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

25. When your child rides with others (friends/family), how often does your child wear a seatbelt?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

26. How often do other children who ride in your car wear a seatbelt? (for instance when carpooling)?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

27. How often do you wear your seat belt when you drive?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

28. How often do you wear your seat belt when you ride as a passenger?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

29. Do you think a child should **always** have to wear a seat belt? yes(1) no(0)

30. Please tell us if there are any reasons why children should not have to wear a seatbelt.

(check all the reasons that you agree with)

- If a safety belt is uncomfortable
- If we are only driving near my house
- If the weather isn't bad
- If it will wrinkle the child's clothes
- If I am a good driver
- If someone will make fun of the child
- If other people are not wearing a seatbelt
- If other adults tell children they don't have to wear a seatbelt

31. Write down any other reasons why you think children should not have to wear seatbelts:

How much do you agree with the following statements?

32. Most people wear a seat belt.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

33. It is OK **not** to wear a seat belt if you are sitting in the back seat.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

34. It is OK to ride in a car without a seat belt as long as you know the driver.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

35. It is ok to sit in the front seat if you are under 12 years old.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

36. It is ok for more than one person to sit in the same seatbelt.

Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
1	2	3	4	5

37. In the next month, how often do you think you will wear a seatbelt when on the **highway**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

38. In the next month, how often do you think you will wear a seatbelt when you are with **your kids**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

39. In the next month, how often do you think you will wear a seatbelt when you are close to **home**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

40. In the next month, how often do you think you will wear a seatbelt when you are the **passenger**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

41. In the next month, how often do you think you will wear a seatbelt when you are with **no kids**?

Never	Rarely	Sometimes	Most of the time	Always
0	1	2	3	4

42. (Kid only question)

How sure are you that you would always wear your seatbelt if:

43. The seat belt made you uncomfortable

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

44. You were in a hurry

Not at all	A little	Somewhat	Very	Extremely
0	1	2	3	4

51. Sometimes I don't wear my seatbelt

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

52. Sometimes I think I should use my seatbelt more often

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

53. It is a waste of time to think about using a seatbelt

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

54. I have just recently decided to always use a seatbelt

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

55. Anyone can talk about wearing a seatbelt but I am actually doing something about it

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

56. I am at a stage where I should think about using a seatbelt

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

57. I worry that if I am in a car crash and I do not have a seatbelt on I may be hurt badly

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

58. There is no need for me to think about using a seatbelt more often

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

59. I am actually changing my seatbelt use right now

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
1	2	3	4	5

60. Using a seatbelt would be pointless for me

Strongly Disagree	Disagree	Unsure	Agree	Strongly Agree
-------------------	----------	--------	-------	----------------

1

2

3

4

5

Please rate how much you agree or disagree with the following statements: Circle only one number

61. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired.

Strongly
Disagree

1

2

3

4

5

Strongly
Agree

6

62. I would make a fine model for a new mother/father to follow in order to learn what she/he would need to know to be a good parent.

Strongly
Disagree

1

2

3

4

5

Strongly
Agree

6

63. Being a parent is manageable, and any problems are easily solved.

Strongly
Disagree

1

2

3

4

5

Strongly
Agree

6

64. I meet my own personal expectations for expertise in caring for my child.

Strongly
Disagree

1

2

3

4

5

Strongly
Agree

6

65. If anyone can find the answer to what is troubling my child, I am the one.

Strongly
Disagree

1

2

3

4

5

Strongly
Agree

6

66. Considering how long I've been a mother/father, I feel thoroughly familiar with this role.

Strongly
Disagree

1

2

3

4

5

Strongly
Agree

6

67. I honestly believe I have all the skills necessary to be a good mother/father to my child

Strongly
Disagree

1

2

3

4

5

Strongly
Agree

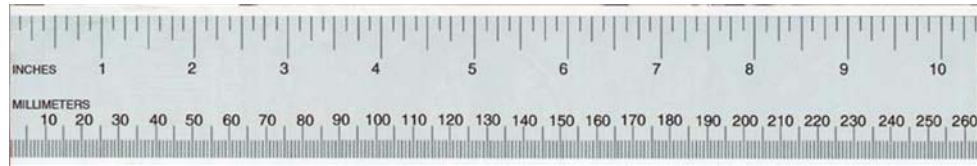
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Thank you for completing this survey!

Appendix C: Readiness Ruler

Not ready at all

Will always wear my seat belt

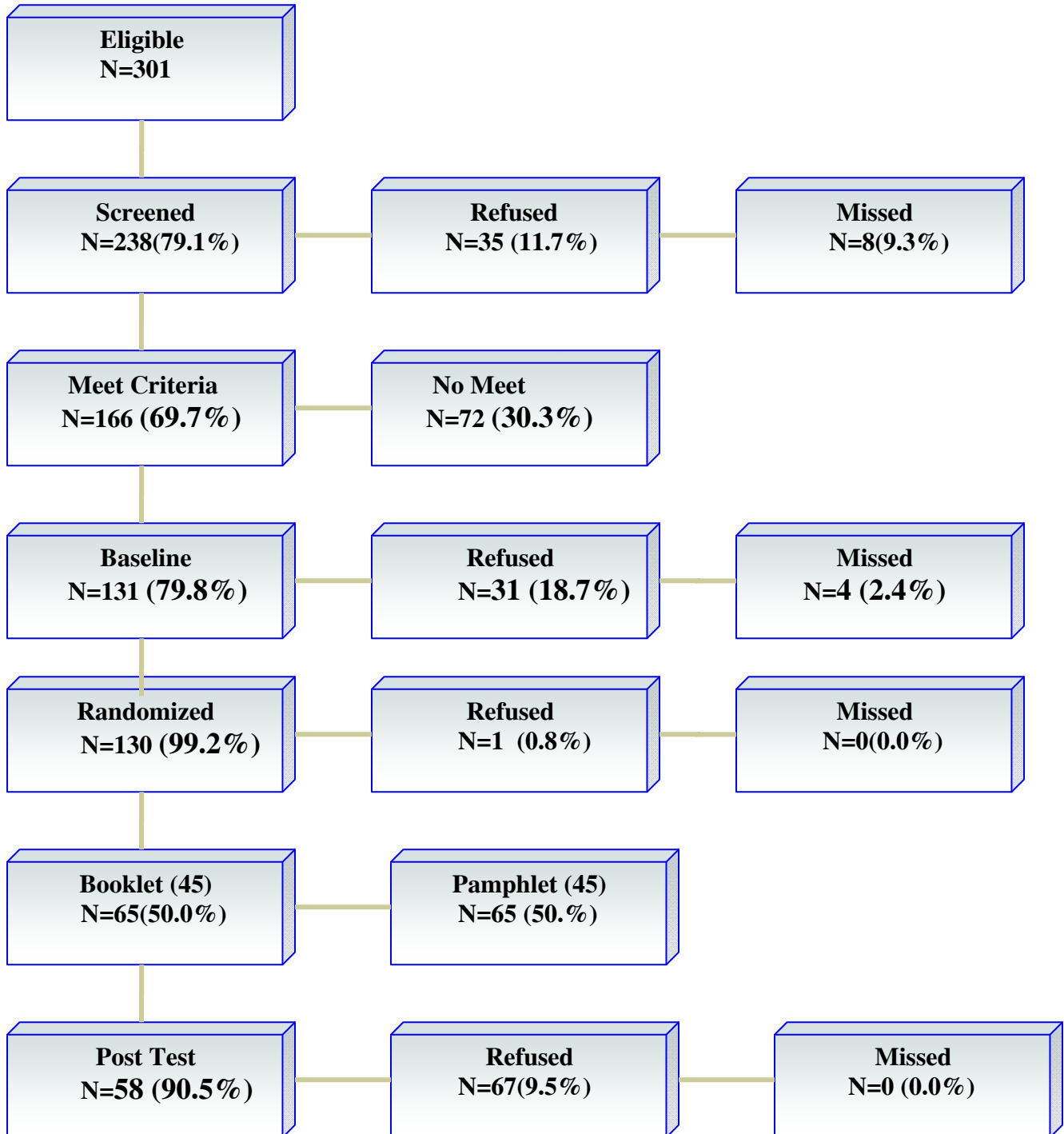


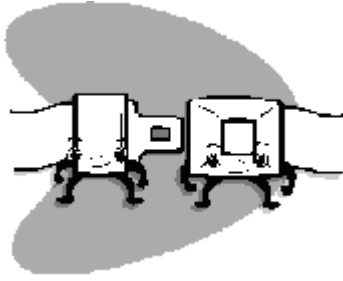
Not ready at All

Will always wear my seat belt



Seatbelt Record Management Flowchart





SeatBelt Follow up Report

Total Due
N = 129

Complete	In progress	Lost to Follow up
115 89.15%	N=0 0%	N=14 10.85%