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The Effect of a Multi-Component Treatment Package on Seat Belt Usage Among Hispanics

Senez Rodriguez-Charbonier
Western Michigan University

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THE EFFECT OF A MULTI-COMPONENT TREATMENT PACKAGE ON SEAT BELT USAGE AMONG HISPANICS

by
Senez Rodriguez-Charbonier

A Thesis
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the
requirements for the
Degree of Master of Arts
Department of Psychology

Western Michigan University
Kalamazoo, Michigan
April 1990

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THE EFFECT OF A MULTI-COMPONENT TREATMENT PACKAGE ON SEAT BELT USAGE AMONG HISPANICS

Senez Rodriguez-Charbonier, M. A.
Western Michigan University

This study analyzed the impact of a combination of approaches on the frequency of seat belt usage in a large Hispanic community in western Michigan. Subjects in either a treatment or a no-treatment control condition were observed weekly for seat belt usage while arriving at church over several months. They were observed for four weeks prior, during and after an intervention program. Subjects in treatment condition attended weekly group meetings where they viewed seat belt use promotion videos, publicly signed behavioral contracts agreeing to use their seat belts, and received permanent prompts which were installed on the dashboard of their cars. A four week follow up was conducted four months after the installation of the permanent prompt.

The treatment effect was maintained at a statistically significant level throughout treatment, after treatment and at four months follow up.
ACKNOWLEDGEMENTS

I would like to dedicate this thesis to my loving wife Sonia who patiently supported me during the endless hours that the project needed to be completed. Very special thanks to Dr. M. Michele Burnette for her guidance, support and encouragement during the time that was most needed and without which I would not have been able to complete the project.

I also want to express appreciation to the religious leaders of the churches where the study was conducted. Their trust and cooperation made possible that the study be conducted. I want to thank Rosa Fraga, from the Hispanic Institute, for allowing the intervention sessions to be conducted in the Institute and who provided needed assistance. And finally, but not the least, I want to acknowledge the invaluable cooperation of Burt Smith from the American Automobile Association who provided much assistance in the audio-visual part of the intervention sessions.

Senez Rodriguez-Charbonier
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INTRODUCTION

Seat belt usage by automobile drivers and passengers has been associated with a decreased probability of injury and death in the occurrence of an automobile accident (Bohlin, 1967). If all of the 57,000 victims of highway accidents which occurred in the United States in 1972 had used their seat belts, as many as 14,250 (25%) probably would have survived. Another 50% of the 4 million injuries which occurred during the same year could have been prevented or reduced if seat belts had been used when the accidents occurred (Austin, 1973).

Efforts to promote seat belt usage by drivers and passengers have included a variety of approaches, such as education and engineering, but, unfortunately, people seem to be resistant to using seat belts on a regular basis, as supported by more than 21,000 field observations in North Carolina (Highway Safety Research Center, 1976). In 1974 the starter-interlock system, which prevented the car from starting unless the seat belt was used, increased seat belt usage to 58% of 2,101 observed drivers. This was compared to 28% of 5,951 observed drivers in the 1973 cars and to 25% of 2,085 observed drivers in the 1972 cars, all of which were equipped with a limited or unlimited buzzer/light system (Robertson,
1975). Geller, Casali and Johnson (1980) reported that they observed a great deal of disconnection or circumvention practices by drivers of cars with interlock or unlimited reminder systems.

In regard to the legal aspect of seat belt usage, the effect of the law itself does not seem to be sufficient to induce consistent seat belt usage. For example, Lund, Pollner and Williams (1987) examined the effectiveness of the mandatory seat belt law in the state of New York and found that nine months after the law came into effect, the number of fatalities in car accidents was reduced by 9%. Despite this improvement, the use of seat belts steadily decreased after the fourth month that the law was put into effect. One year later, however, in a sampling of large and small cities, belt use was just a bit under 50%, which is still much better than prelaw levels. It is noteworthy that New York's law is considered one of the toughest as it allows for a high fine (up to $50) and for police officers to cite violations of the belt law as the primary offense (Lund et al., 1987).

It is reasonable to conclude from these data that a problem of this magnitude which affects most people represents a major concern for our society. Elman and Killebrew (1978) offer a behavioral explanation for the failure of the different approaches used to increase seat
belt usage. They suggest that people's tendencies are to increase their rewards and to decrease their costs, and that concrete, immediate stimuli may be more influential than those more abstract and remote. In the case of the buzzer-reminder (an aversive stimulus), the most immediate reinforcer is to terminate it, and this is easily done by circumventing the system or keeping the belts buckled permanently behind the driver's back (Robertson, 1975). But in most modern cars without the permanent buzzer, just ignoring it for a few seconds will suffice.

Regarding the ineffectiveness of televised advertisements, Elman and Killebrew (1978) cited two main reasons: (1) the messages are generally received by the person far removed from the actual driving situation, "thus diminishing their possible impact in comparison to more immediate, situational factors" (p.74); and (2) there is no immediate reinforcement for using the seat belt with the exception of the "intrinsic safety value of such re­strants" (p.74). Instead, they provide concrete negative consequences if the seat belt is not used, and these consequences seem far removed as well. It would be more reasonable to look for alternatives that do not involve punishment as a means of controlling the behavior.

In reviewing the literature, several studies have attempted to increase seat belt usage utilizing a variety of behavioral approaches (Elman & Killebrew, 1978;
Some behavioral approaches such as contingency rewards (Johnson & Geller, 1984) and personal promptings (Geller et al., 1982, 1985) seem to be more effective in increasing observed seat belt usage than others, such as televised advertisements or irrelevant messages such as "Save a Life—Drive Carefully Today!!" (Elman & Killebrew, 1978). Also, studies that have involved members of the community (i.e., bank managers and staff) appear to be promising in that they give the community the opportunity to work together toward a common goal (Geller et al., 1982; Johnson & Geller, 1984).

Although each of the studies cited above reported an increase in seat belt usage, there are some limitations that deserve comment. Several of the studies using behavioral approaches, such as contingency rewards and prompts (Geller et al., 1980, 1982, 1985; Johnson & Geller, 1984; Williams et al., 1989) were conducted with a university population. These individuals have, presumably, a higher than average formal education, which has been associated with increased probability of seat belt usage (Geller et al., 1985; Robertson, O'Neill, &
Another limitation observed in the studies cited above has to do with follow-up. Some report post-intervention follow-ups as short as 10 days (Geller et al., 1982), and one with a longer follow-up of 3 months (Sowers-Hoag et al., 1987), while others report no follow-ups as part of the study (Williams et al., 1989). A third limitation is that none of the above studies addresses the issue of how minority groups in this country respond to the different approaches to seat belt usage. In addition, since many people in minority groups hold different cultural values, it seems reasonable that special methods will be needed to affect them. One such group is the Hispanic population. Since none of the Hispanic countries promote seat belt use or requires the use of seat belts in the same way as the U.S., it would be useful to find out how the Hispanic population as an ethnic minority responds to a package of behavioral techniques that have been moderately successful in increasing seat belt use in non-Hispanic groups (e.g., personal promptings, education within a community group).

The purpose of the present study was to determine: (a) if a package consisting of a group intervention using instruction, social motivation and prompts would increase seat belt use in a sample of the Hispanic population in the U.S.; and (b) if Hispanics would respond in a manner similar to that of other groups examined in the litera-
ture. When used alone, some of these approaches do not seem to have long lasting affects on the general population (Geller et al., 1982, 1985; Robertson, Kelley, O'Neill, Wixom, Eiswirth & Haddon, 1974; Sowers-Hoag et al., 1987). It was expected that members of the Hispanic community who participated in this program would increase seat belt usage while a non-treatment control group from the same population would not. A three month follow-up was conducted to assess the level of seat belt usage maintained after the completion of the program.
METHOD

Subjects

Thirty-six subjects, recruited from four different Hispanic-area churches (two Adventist, one Catholic and one Pentecostal), participated in this study. There were initially 67 volunteers who reported that they "never," "sometimes," or "seldom" wore their seat belts. However, only drivers and front seat passengers who had cars with operable, non-passive seat belts with visible shoulder straps and from whom data could be collected were allowed to participate. These subjects were randomly assigned to either the treatment or control group, leaving 19 in the treatment group and 17 in the control group. Groups were examined to see if they were relatively balanced in terms of sex, religious affiliation, and nationality. Both groups were found to be relatively balanced regarding gender. Religious affiliation and nationality were not balanced. There was a higher representation of Puerto Ricans vs. Mexicans, Cubans and Dominicans in both treatment and control groups. Also, Adventists were more represented than Catholics and Pentecostals in both groups. Table 1 summarizes the demographic data.
Table 1

Subject Distribution by Sex, Religious Affiliation and Nationality for Treatment and Control Groups

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Note. ADV = Adventist; CATH = Catholic; PEN = Pentecostal; PR = Puerto Rican; MEX = Mexican; CUB = Cuban; DOM. = Dominican.

Setting

Observations took place at the churches on Sunday or Saturday mornings, depending on when worship services were held. During the intervention phase, group meetings were held at a nearby adult education school, which was neutral with respect to the participant churches but close by to ensure maximum attendance.

Observers

Nine Hispanic community members were recruited to observe seat belt usage. The observers, six females and two males, were blind to the control or treatment
two males, were blind to the control or treatment conditions. They were also instructed not to discuss their participation in the project with anyone else.

Materials

Data were recorded by the observers on 8 1/2" x 11" forms on which was listed the date and all possible plate numbers of the participant's cars (see Appendix A). The observers were responsible for underlining or circling the car plate numbers as they were observed. Each participant car was identified by a round sticker 3 1/2" in diameter with a seat belt logo in the center (see Appendix B). They were placed on the right upper part of the windshields which the observers were to check on the forms as the cars arrived to the church's parking lot. Treatment group participants used red stickers; the control group used green stickers. The prompt consisted of the picture of a significant other mounted on a 2 1/4" x 3 1/4" acrylic frame attached to the dash of the car with a piece of velcro. The acrylic frame had the following printed message in Spanish: "PLEASE, WEAR YOUR SEAT BELT NOW!" (see Appendix C).
Procedure

Observation

Three meetings were held to familiarize the observers with the materials to be used and procedures to be followed during the study. They were taken to the various church parking lots, and an observation location chosen which would allow the observers to be unobtrusive while still able to clearly observe whether or not participants were wearing their seat belts. Thus, observers sat in their cars parked along the streets on which the participants would have to transverse on their way to the church parking lot. Ten practice trials were conducted on two different occasions by having some observers drive to the parking lots while others recorded data. The observers were instructed to record the critical information listed on the recording form and not to discuss what they recorded with the other observer. A seat belt was defined as in use when the observer could see the shoulder strap of the seat belt resting firmly across the participant's shoulder. Observers were instructed to record as "not using the seat belt" if they observed a participant fastening the seat belt as they approached the parking lot. No such case was ever reported by the observers. There were a total of 10 observation practices for each pair of observers. Interobserver
reliability scores were calculated by dividing the number of agreements between two observers by the number of agreements plus disagreements and multiplying by 100. The reliability between any two independent observers was at least 90%.

Recruitment and Instructions to Participants

Participants were recruited during the regular church meetings a few weeks before the first observation period began. After receiving approval from their religious leaders, the congregations were addressed. They were encouraged to cooperate as volunteers and were assured of confidentiality of data and the absence of psychological or physical risks. They were informed that by volunteering to participate they could win some prizes in the periodic drawings that would take place during the study (see Appendix D). The local pastors and priest also spoke in support of the study and encouraged each member to consider participating in the study. A special form with a printed statement requesting the necessary information from the volunteers was handed to all the congregation members so that they could express their willingness to participate in the study (see Appendix E).

Once the list of volunteers who met the criteria for participation was collected, a random assignment to control and treatment groups took place. The experimental
group was then contacted over the telephone to let them know the schedule of the intervention sessions, the place, the date and the time of the meetings. During the next weekend at the church meeting, they received a three-and-a-half-inch, colored sticker with a seat belt logo on it, which was placed on the front right side of the windshield of their cars to indicate their commitment to participate. It was also used to cue the observers regarding study participants. The experimental group received red stickers; the control group received green stickers. All cars owned or driven by the participants were properly identified to ensure proper observation in case they switched to another car during the study.

Both treatment and control groups were instructed to maintain the colored sticker on their car's windshield until it was communicated to them that the study had been completed. They were also told (before the random assignment) that some of them would be asked to participate in some meetings and, if so, they would be contacted to schedule a meeting.

Baseline

All participants were observed for seat belt use on 4 consecutive weekends. Each participant was observed once while arriving to church on either Saturday or Sunday. Identification of non driver participants (which
were always spouses) was possible by using three main cues: sex, approximate age and whether or not the participant was occupying the front seat. No contact was made with the participants during this phase of the study.

Treatment

All subjects were observed for another 4 weeks in the same manner as was described in baseline.

Experimental Group

During the intervention period, a weekly meeting was conducted four weeks in a row. During each meeting, a drawing of a small "surprise" took place to keep the motivational level high. Only those participants who were present during the entire meeting were eligible for the drawings. In addition, a final grand prize was announced and displayed at each meeting. Some juice and snacks were also provided for the participants. Subjects who attended at least three out of the four sessions remained in the study. All of those who were absent two or more sessions were dropped from the study. This was done to ensure that all treatment subjects were exposed to all the aspects of the treatment phase.
Session 1. The goal of the first session was to expose the participants to the issue of seat belt usage and the implications of using or not using it. A videotape entitled "It Will Never Happen to Me" (Buckley & Kennedy-Tirrell, 1983) was presented in English since it was easy to understand and the majority of the attendants knew English sufficiently to understand it. Translation was offered for a few who did not speak much English. The participants, led by the program coordinator, discussed the content of the tape and had the opportunity to ask questions about the topic presented. Some questions on the content of the tape had been previously drafted to lead the discussion on the issues of concern.

A three question quiz was given to assess general understanding of the tape presented and record attendance (see Appendix G). Everybody wrote their names, the date and the answers to the three true or false questions. Eighty-five percent of the subjects answered all questions correctly.

The group was then divided into two. Group one (the Con group) was assigned to come to the next meeting ready to present their reasons for not using the seat belt. Group two (the Pro group) was asked to come prepared to present the reasons why they should use the seat belt. Both groups were instructed to present their topic as if they "actually believed it." The study coordinator had
prepared a list of myths that people have about seat belts and the arguments against those myths. This was done to lead the discussion in the event that the groups hesitated to engage in the discussion.

Each participant was asked to bring a picture of the most significant person in his/her life (child, husband or wife) to the next session. Each was told that the picture would be given back in a special frame as a gift for participation in the project.

The participants were all instructed not to talk about the content of the sessions with anybody outside the group members until the project was completed so that the project could be conducted in the best possible manner. All participants signed a contract to that effect (see Appendix G).

Prior to the end of the first session, a drawing was held for an electric glue gun and participants were invited to adopt the motto: "For the sake of myself, I'll always use the seat belt." They were asked to repeat the motto twice and the meeting was adjourned (see Appendix H).

**Session 2.** The goal for the second session was to encourage the participants to verbalize their opinions (myths and realities) about seat belt usage and to give and receive feedback about those opinions. After the
introduction, the video "Es un Salvavidas" ("It is a Lifesaver") (Kidsafe & Tober, 1985) concerning seat belt use by infants and small children was shown. The Con group presented the reasons some people have for not using the seat belt. Immediately after, the Pro group presented their reasons for using the seat belt. The project director moderated the discussion at the end of which a summary of the main points was made. Testimonies of some people whose relatives or who, themselves, had been involved in auto accidents while using or not using a seat belt were presented and discussed. A three question quiz was administered based on the videotape and the discussion. Ninety percent of the participants had perfect scores on the quiz. To adjourn the meeting the motto ("for the sake of myself I'll always use the seat belt") was repeated twice by all the participants led by the project director.

Session 3. The goal of the third session was to expose the participants to the mechanical operation of the seat belt and to secure individual commitments to use the seat belt by means of a public commitment. A visual demonstration of the seat belt operation by an American Automobile Association (AAA) representative took place. Statistics on auto accidents in Michigan and how seat belt use could have helped to save lives were provided.
At the end of the session all the participants were invited to publicly sign a contract promising to use the seat belt at all times (see Appendix I). According to Sensenig and Cialdini (1984), this would enhance the probability of using the seat belt. All the participants agreed to publicly sign the contract and at the same time served as witnesses for each other by signing another's contract. Before the meeting was over, a three question quiz took place on which 85.7% of the participants made a perfect score. The motto ("for the sake of myself I'll always use the seat belt") was repeated by all the participants and the meeting was adjourned.

Session 4. The goal of session 4 was to have each participant install a prompt made with the picture of his/her significant other on the dash of his/her car as a permanent prompt/reminder of commitment to use a seat belt.

The participants were asked to report if they had been using the seat belt and if they reported that they had, received an applause by the group. All the participants received and installed the promised prompt/reminder. The "Grand Prize" (a 2-1/2 quart oval Corning Ware casserole with its cover and stand) was drawn. Everybody applauded the winner. The final (one true-or-false question) quiz took place with everybody having a
perfect score. All the participants were asked to recite the adopted motto and the session was adjourned.

Observations continued for four more weeks after the intervention sessions were completed.

Control Group

The control group did not participate in any intervention session but continued to be observed during the same occasions that the treatment group was observed. The same demographic data collected from the treatment group were also collected on the control group to make statistical comparisons regarding seat belt use.

Prior to the random assignment of the groups, all the participants were informed that some of them might be required to participate in a few meetings but that they would be notified if any of them were actually selected. They all were instructed to keep the stickers on their cars until the completion of the study after which they would be notified to remove them if desired.
RESULTS

Observers Reliability

Interobserver reliability was determined by a random checking of 50% of the total pairs of observations for each phase of the study. It was calculated by dividing the total number of agreements by the number of agreements plus disagreements x 100. The obtained interobserver reliability was 90%.

Seat Belt Data

For the purpose of statistical analysis, data were described as group sums of the number of times subjects were wearing their seat belts during each phase. The difference scores between treatment and baseline and between posttreatment and baseline for both groups was calculated and dependent t-tests on the mean difference were conducted. A significant difference was found between the two groups at both treatment $t(30) = 7.97, p<.001$ and post-treatment $t(30) = 8.37, p<.001$.

Also, two separate repeated measures one factor analyses of variance (ANOVA) were calculated to assess any significant change in seat belt use for both treatment and control groups across phases: (baseline,
treatment and posttreatment). As expected, no significant change across levels was found in the control group whereas a significant change was found in the treatment group $F(2,36) = 80.19, p < .001$. Figure 1 is a graph of the data described as percentage of times seat belts were worn by each group during each phase.

![Graph of seat belt usage across phases](image)

**Observation Phase**

**Figure 1.** Percent of Times Subjects Were Observed Wearing Seat Belts Across Weeks of the Study

Two other $t$-tests for the difference among several means in the treatment group were conducted to determine at what level the change occurred. A significant change
was found between baseline and treatment levels, $t(30) = 2.9, p < .001$, as well as between baseline and post-treatment levels, $t(30) = 3.05, p < .001$.

A follow-up phase was also conducted three months after the last observation of the post-treatment period. Although not every subject was observed on each opportunity during the four week period, a total of 63 observations (out of 76 possible) for the treatment group were recorded as well as 55 observations (out of 68 possible) for the control group. This represents 82.89% of the total possible observations for the treatment group and 80.88% for the control group.

Seat belt usage was observed in 69.8% and 23.64% of the observations for the treatment and control groups, respectively. Thus, the difference in seat belt use by the two groups at four months follow-up was maintained.
DISCUSSION

The results of this study support the hypothesis that combining a number of approaches can be effective in increasing the frequency of seat belt use among a segment of the Hispanic community. At this point it would be difficult to specify whether any of the approaches alone would be effective in increasing seat belt use in this particular population. However, it should be noted that a significant increase in the frequency of seat belt use was observed right after the first intervention session and was maintained throughout the four following weeks. This may suggest that the impact of the activities of the first session were themselves effective in increasing seat belt use and that this was reasonably maintained in a cumulative fashion by the other package components culminating with the permanent prompt of the significant other installed on the dash of the subjects' cars.

Taking into consideration other studies in the general population that have utilized either education or prompting or stimulus control separately without long lasting effect, it is reasonable to assume that the package is more effective than any one element alone. However, if one considers the value that the Hispanic people place on the family (Fitzpatrick, 1981; Mirande,
1977), it would be reasonable to hypothesize that using stimuli such as a picture of a significant other as a prompt to use the seat belt would be a powerful and effective tool. Further research would be necessary to test the efficacy of this kind of prompt alone in increasing seat belt use in a similar segment of the Hispanic population.

The present study varies from other seat belt studies in the literature in that:

1. The sample population represents a minority group that has, so far, not been studied as such in the seat belt literature.

2. Most studies reported have been conducted in university or college campuses suggesting a population with a higher education level. Participants in the present study had a mean education level of 11.2. The treatment group had a range between 3 to 17 years of school for a mean of 12.2, whereas the control group had a range between 3 to 15 for a mean of 10.3 years of school.

3. The present study included a one month observation follow up which took place four months after the last observation of the intervention phase.

4. Finally, this study used an intervention package with approaches which have been used separately with various degrees of effectiveness as suggested by results
of short term follow ups (Geller et al., 1982; Sowers-Hoag et al., 1987) or in other studies with no follow up procedures (Elman & Killebrew, 1978; Geller et al., 1980, 1985; Rogers et al., 1988; Williams et al., 1989).

One possible confounding variable that deserves comment is the fact that the project coordinator was a well known and active community member. Contact between the participants and the project coordinator was maintained on a weekly basis during the entire study. This is a factor that may directly or indirectly influence participants in using and/or maintaining use of seat belts. In the present study, the control group did not have social contact with the program coordinator other than casual encounters in public or social situations. Therefore, the contact with the project coordinator was not controlled for.

On the other hand, however, this study demonstrates the value of utilizing local resources that are cost effective in increasing seat belt use in a minority population such as the Hispanic population. Leaders of local Hispanic churches, in cooperation with other Hispanic community leaders, can have an impact by developing cost effective programs resulting in a substantial increase in seat belt use that could save lives in this growing population in our nation.
In considering generalizability of the results of this study, the limitations of the population sample should be taken into consideration. Although four different congregations representing various sub-ethnic groups were included in the study, the common factor was church attendance. Whether or not representatives of similar sub-ethnic groups who are not regular church attendants would respond in a similar way to the approaches used, may be a factor to be considered in future studies. Perhaps comparing church goers with non church goers that could be observed on a regular basis may provide an answer to this question.

The present study is the first, as far as known, to examine the effectiveness of behavioral strategies for seat belt use in members of the Hispanic community. It should stimulate future research with this and other growing minority groups in the U.S.
Appendix A

Seat Belt Data Collection Form
SEAT BELT DATA COLLECTION FORM

Date: ___/___/____ ( ) Red sticker

Approximate time: _________A.M. ( ) Green sticker

Driver's sex: ( ) male ( ) female

Wearing seat belt: ( ) yes ( ) no

Approximate age of driver: ( ) 16-25 ( ) 26-35 ( ) 36-45

( ) 46-55 ( ) 56-65 ( ) over 65

Other passengers in front seat? ( ) yes ( ) no

Wearing seat belt? ( ) yes ( ) no

Other passengers in back seat? ( ) one ( ) two

( ) three or more

Wearing seat belt? ( ) one ( ) two

( ) three or more

License Plate #: 

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FORMULARIO DE COLECCIÓN DE DATA SOBRE
EL CINTURON DE SEGURIDAD

Fecha: ____/____/____   ( ) Marbete rojo

Hora aproximada: ___________ A.M.   ( ) Marbete verde

Sexo del conductor: ( ) Masculino   ( ) Femenino

Conductor usando el cinturón? ( ) si   ( ) no

Edad aproximada del conductor: ( ) 16-25 ( ) 26-35
( ) 36-45 ( ) 46-55
( ) 56-65 ( ) más de 65

Otro(s) pasajero(s) en el asiento delantero? () si () no

Usando el cinturón? () si () no

Otros pasajeros en el asiento trasero? () uno () dos
() tres o más

Usando el cinturón? () si () no () uno
() dos () tres o más

Tablilla o Placa #:
Appendix B

Identifiers of the Seat Belt Subject's Cars
Identifiers of the Seat Belt Subject’s Cars

(Red for Treatment; Green for Control)
Appendix C
Prompt for Seat Belt Use
PROMPT FOR SEAT BELT USE

PLEASE WEAR YOUR SEAT BELT NOW!!
RECORDATIVO DEL USO DEL CINTURON DE SEGURIDAD

POR
FAVOR
PONTE
AHORA!

EL CINTURON
Appendix D

Invitation to Participate in the Seat Belt Study
INVITATION TO PARTICIPATE IN THE SEAT BELT STUDY

As part of the requirements for my degree at the university I am conducting a study regarding the use of seat belt in the Hispanic community in the Grand Rapids area. I am soliciting your cooperation in the conducting of this study since its results may be of benefit for us all as good Christian citizens. The forms that will be handed out to you should be completed only by those that: (1) have a valid Michigan driver's license, (2) drive your car on a regular basis to go to the church and other activities and (3) are willing to participate in the study.

There are no risks of any kind for you. You can receive the form now. To save time, I will read it out loud and you can follow me by reading the form silently. If you are willing to participate, you can write your name in the indicated space. If you have any question I will stay until the end of this meeting to answer them. In fact, all of you that participate in the study will have also the opportunity to participate in the drawings that will take place at the appropriate time during the study.

We have printed the forms both in English and Spanish for the benefit of those that are more fluent in one language than the other. Thank you very much for your cooperation.

Name___________________________________________

Address_________________________________________

Telephone #_____________________________________

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INVITACION A PARTICIPAR EN EL ESTUDIO
DEL CINTURON DE SEGURIDAD

Como parte de los requisitos de mi preparación académica en la universidad, estoy llevando a cabo un estudio que tiene que ver con el uso del cinturón de seguridad entre la población hispana de Grand Rapids. Estoy solicitando su bondadosa colaboración en este estudio ya que los resultados del mismo podrán ser de beneficio para nosotros como hispanos y como buenos ciudadanos cristianos. Las formas que a continuación van a ser distribuidas deberán ser llenadas solamente por aquellas personas que: (1) tienen licencia de manejar del estado de Michigan, (2) conducen su auto regularmente para venir a la iglesia y para otras responsabilidades diarias, y (3) están dispuestas a participar en este estudio.

No hay riesgo de ninguna clase para Ud. Puede recibir la forma que pasaremos ahora. Para ahorrar tiempo, yo la leeré desde aquí y Uds. la siguen con la vista mientras yo la leo. Si está de acuerdo en participar, puede colocar su nombre en el lugar correspondiente. Si tiene alguna pregunta, yo quedarme hasta el final de esta reunión para contestársela. Todas las personas que voluntariamente decidan participar en este estudio tendrán la oportunidad de participar también en los sorteos que se realizarán en el momento oportuno. Hemos impreso la forma tanto en español como en inglés para facilitar su lectura por aquellos de Uds. que leen un idioma mejor que el otro. Muchas gracias por su colaboración.

Nombre___________________________________________________

Dirección_________________________________________________

Teléfono_________________________________________________
Appendix E

Volunteers For The Seat Belt Study
VOLUNTEERS FOR THE SEAT BELT STUDY

The information that we are soliciting here is very important as it will be used for comparison purposes in our study. The information requested here will be kept strictly confidential. To each participant, a code number will be assigned and the name will never be revealed. THANK YOU VERY MUCH FOR YOUR COOPERATION.

1. Name: ____________________________________________________________________
   (last name) (first name) (middle name)

2. Your car's license plate number(s)___________________________________________

3. Address: __________________________________________________________________
   (Street number and name) (city) (zip code)

4. Telephone #____________________ 5. Number of years driving____

6. Approximate age (check only one) ( ) 16-25 ( ) 26-35 ( ) 36-45
   ( ) 46-55 ( ) 56-65 ( ) 66 or more

7. Sex: ( ) Male ( ) Female 8. Last year of school completed____

9. Civil status: ( ) single ( ) married ( ) divorced
   ( ) widow ( ) separated

10. Nationality (country of origin): ( ) Mexican-American ( ) Mexican
    ( ) Puerto Rican ( ) Cuban ( ) Dominican ( ) other

11. Frequency with which you use the seat belt: ( ) Always ( ) Some
times ( ) Seldom ( ) Never ( ) Only in the Highway ( ) Other (explain)

12. Number of years living in the United States: ( ) 0-5 yrs
    ( ) 6-10 yrs ( ) 11-15 yrs ( ) 16-20 ( ) 21-25 yrs ( ) 26 or more

13. Have you ever been involved in an auto accident? ( ) yes ( ) no
    (If your answer to question 13 is yes), How many times?__________

    -THANK YOU FOR YOUR COOPERATION-
VOLUNTARIOS PARA EL ESTUDIO SOBRE EL CINTURON DE SEGURIDAD

La información que estamos solicitando a continuación es muy importante para propósitos de comparación en nuestro estudio. La información aquí contenida será guardada en estricta confidencia. A cada participante se le asignará un número de código y su nombre nunca será dado a conocer. MUCHAS GRACIAS POR SU COOPERACION.

1. Nombre__________________________________________________________________
   (apellido) (primer nombre) (segundo nombre)

2. Número de la licencia (o tablilla o chapa) de su auto___________

3. Dirección_________________________________________________________________
   (número y calle) (ciudad) (zip code)

4. Teléfono # 5. Años de experiencia como conductor_

6. Edad aproximada (marque sólo una): ( )16-25 ( )26-35 ( )36-45
   ( )46-55 ( )56-65 ( )66 o más

7. Sexo: ( )masculino ( )femenino 8. Años de educación escolar____

9. Estado civil. ( )soltero(a) ( )casado(a) ( )divorciado(a)

10. Descendencia o nacionalidad: México-Americano(a) ( )Mexicano(a)
     ( )Puertorriqueño(a) ( )Cubano(a) ( )Dominicano ( )otra

11. Frecuencia conque usa el cinturón de seguridad: ( )siempre
    ( )de vez en cuando ( )casi nunca ( )nunca ( )sólo en viajes
    largos cuando uso el "highway" ( )otra (explique al dorso)

12. Años viviendo en los Estados Unidos: ( )0-5 años ( )6-10 años
    ( )11-15 años ( )16-20 años ( )21-25 años ( )26 años o más

13. Ha estado envuelto en algún accidente de automóvil? ( )si ( )no
    (Si su respuesta a la pregunta 13 es si), Cuántas veces?___________

-MUCHAS GRACIAS POR SU COOPERACION-

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Appendix F

Drawing and Quiz Card
<table>
<thead>
<tr>
<th>DRAWING AND QUIZ CARD (1)</th>
<th>DRAWING AND QUIZ CARD (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NAME</strong></td>
<td><strong>NAME</strong></td>
</tr>
<tr>
<td>Questions: Answer yes or no</td>
<td>Questions: Answer yes or no</td>
</tr>
<tr>
<td>1. Yes ( ) No ( )</td>
<td>1. Yes ( ) No ( )</td>
</tr>
<tr>
<td>2. Yes ( ) No ( )</td>
<td>2. Yes ( ) No ( )</td>
</tr>
<tr>
<td>3. Yes ( ) No ( )</td>
<td>3. Yes ( ) No ( )</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DRAWING AND QUIZ CARD (3)</th>
<th>DRAWING AND QUIZ CARD (4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NAME</strong></td>
<td><strong>NAME</strong></td>
</tr>
<tr>
<td>Questions: Answer yes or no</td>
<td>Questions: Answer yes or no</td>
</tr>
<tr>
<td>1. Yes ( ) No ( )</td>
<td>1. Yes ( ) No ( )</td>
</tr>
<tr>
<td>2. Yes ( ) No ( )</td>
<td>2. Yes ( ) No ( )</td>
</tr>
<tr>
<td>3. Yes ( ) No ( )</td>
<td>3. Yes ( ) No ( )</td>
</tr>
</tbody>
</table>
PAPELETA DE SORTEO Y PRUEBA

(1)

NOMBRE________________________

Preguntas: Contesta Si o No

1. Si ( )  No ( )
2. Si ( )  No ( )
3. Si ( )  No ( )

PAPELETA DE SORTEO Y PRUEBA

(2)

NOMBRE________________________

Preguntas: Contesta Si o No

1. Si ( )  No ( )
2. Si ( )  No ( )
3. Si ( )  No ( )

PAPELETA DE SORTEO Y PRUEBA

(3)

NOMBRE________________________

Preguntas: Contesta Si o No

1. Si ( )  No ( )
2. Si ( )  No ( )
3. Si ( )  No ( )

PAPELETA DE SORTEO Y PRUEBA

(4)

NOMBRE________________________

Preguntas: Contesta Si o No

1. Si ( )  No ( )
2. Si ( )  No ( )
3. Si ( )  No ( )
Appendix G

Promise of Confidentiality
PROMISE OF CONFIDENTIALITY

I have been explained the importance of maintaining strict confidence about the information that I will receive during the seat belt education sessions. I understand that for the study to be conducted in the best way possible the content of the sessions should not be divulged to other people outside the group I belong to, until I receive the ok. from the directors of the project.

Therefore, I voluntarily promise not to talk to anybody about the content of the sessions with the exception of those people who participate in the group. I also promise that in the event that I do talk with members of the group about the content of the sessions, I will not do so in front of or in places where other people outside the group could hear me.

Signature________________________________ Date:___/___/_____
Se me ha explicado la importancia de mantener estricta confidencia sobre la información que recibo durante las diferentes sesiones educativas del cinturón de seguridad. Entiendo que para que el estudio pueda ser conducido de la mejor manera posible, el contenido de las sesiones no debe ser divulgado a otras personas que no sean parte del grupo al cual yo pertenezco hasta que reciba el visto bueno de parte del director del estudio.

Por lo tanto, voluntariamente prometo no hablar con ninguna otra persona sobre la información que recibo en las reuniones con la posible excepción de los miembros del grupo al cual yo pertenezco. También prometo que en caso de hablar con miembros del grupo sobre el contenido de las reuniones, no lo haré en presencia de personas ajenas al grupo o en lugares donde pudiera ser oído por otras personas.

Firma: __________________________ Fecha: ____/____/____
Appendix H

Intervention Sessions
INTERVENTION SESSIONS
Presented by the Project Coordinator

Session 1. Goal: To expose participants to the issue of seat belt and the implications of using or not using it.

a) Welcoming to the participants as a "special group".
   Applause for the group by the group itself. (3 minutes)

b) Brief introduction to the program. (1 minute)

c) Presentation of a video tape entitled "It will never happen to me". Discusses rationale and myths about seat belt. (20 minutes)

d) Questions and answers about the film. (10 minutes)

e) Request to bring a picture of the most significant other (wife, son, daughter, mother, girlfriend etc.) for the next session to make a nice prompt for their cars. For the participants that did not have one, the project coordinator will make plans to take a picture of the significant other so that the prompt could be made before the last intervention session. (2 minutes)

f) Experimental group to be divided in two. For the next session group 1 to bring a list of reasons why not to use the seat belt. Group 2 to bring a list of reasons for using the seat belt. This was to be used for discussion, like a group dynamic. (5 minutes)

g) Signing the commitment of not talking about the information received during the intervention sessions with people outside their group. (2 minutes)
h) 3 questions quiz to evaluate goal and taking attendance.
   (1 minute)

i) From this session on, the group adopted the motto "For
   the sake of myself, I'll always use the seat belt", which
   was repeated by the end of every session.

Session 2. Goal: To encourage the participation to verbalize their
   opinions (miths or realities) about seat belt usage
   and to give and receive feedback.

a) Welcoming to the session 2; introduction of groups
   (1 minute)

b) Group 1 to present reasons why not to use seat belts.
   (8 minutes)

c) Group 2 to present reasons why to use seat belts.
   (8 minutes)

d) Testimony from people who have been involved in auto
   accidents while using the seat belt, and the results of
   the accident. To be done after the second video in
   Spanish on seat belts for children. (25 minutes)

e) Drawing of a small appliance or other donated home or
   personal item. (5 minutes)

f) 3 question quiz to evaluate goal and taking attendance.
   (1 minute)

g) Encouragement to attend next meeting (there may be a
   surprise). Reciting the seat belt motto and adjourn.
   (2 minutes)
Session 3. Goal. To expose participants to the mechanical operation of the seat belt and to secure their public commitment to use it.

a) Live demonstration by AAA representative about the mechanical operation of the seat belt. (20 minutes)
b) Statistics about accidents in Michigan and how seat belt usage could have saved lives. (2 minutes)
c) People to be reminded that some insurance companies have special discounts on premiums if policy holders promise to use the seat belt at all times. (1 minute)
d) To publicly sign a commitment to use the seat belt at all times. Each person to stand up, come to the front and sign. (10 minutes)
e) To announce that the next session each person who brought the picture of a significant other will receive it back laminated with a special message, and to be placed on the dash of the car as a nice souvenir/reminder of the program (and the commitment to buckle up). Also to remind of the "Grand Prize" to be given away during the next and last session. (1 minute)
f) Goal to be evaluated by the amount of people who sign the commitment to use the seat belt at all times. Special cards with their names will be collected to take attendance for the last drawing.
g) Recite the motto as the group stands to leave.
Session 4. Goal: To have each participant install the prompt made with the picture of a significant other on the dash of their cars as a permanent prompt/reminder of their commitment to use it.

a) Welcoming to the last intervention session and a very brief review of what has been covered during previous sessions. To provide positive verbal reinforcement for those who have been using the seat belt. (5 minutes)

b) Each driver to help in the installation of the specific place that they consider most appropriate. By so doing it is expected that it will become more significant prompt/reminder. (25 minutes)

c) Drawing among the participants of the "Grand Price" as previously announced. (5 minutes)

d) Before adjournment all participants to receive the motto: "For the sake of myself, I'll always use the seat belt".

e) The goal to be evaluated by the actual number of participants installing the prompt/reminder on the dash of their cars. Extra prompts/reminders to be given to participants who have more than one car.
Appendix I

Behavior Contract
BEHAVIOR CONTRACT

Understanding the importance of wearing the SEAT BELT while driving a car and understanding that "an ounce of prevention is worth more than a pound of remedy", or said in a different way "It is better to prevent than to remedy", in the presence of all the people here tonight and for my own personal safety I MAKE A PUBLIC COMMITMENT to wear the SEAT BELT from now on by signing my name below.

Signature_____________________________ Date___/___/___

Witness_______________________________ Date___/___/___
CONTRATO DE CONDUCTA

Comprendiendo la importancia del uso del CINTURON DE SEGURIDAD al manejar mi auto y entendiendo que "Una Onza de Prevención Vale Más Que Una Libra de Curación" o dicho de otra manera: "Es Mejor Precaver Que Tener Que Remediar" en presencia de los aquí reunidos y para mi propia seguridad personal, ME COMPROMETO solemnemente en usar el CINTURON DE SEGURIDAD de aquí en adelante. Y para que así conste firmo este contrato públicamente.

Firma________________________________________Fecha___/___/___

Testigo____________________________________________Fecha___/___/___
Appendix J

Informed Consent for Participating in the Seat Belt Study

55
INFORMED CONSENT FOR PARTICIPATING IN THE SEAT BELT STUDY

I understand that I have been invited to participate in a study entitled "Seat Belt Usage Among Hispanics". The purpose of this study is to discover appropriate methods to increase the voluntary use of the seat belt among the Hispanic community of Grand Rapids.

I understand that my participation in this study will be limited to the possible observation of the frequency with which I use the seat belt while driving my car. I may also participate in few educational meetings on the importance and the implications of using or not using the seat belt while driving a car.

Also I understand that my voluntary participation in the study will give me the right to participate in the drawings that will take place in the group as programmed by its directors. Also I will obtain knowledge about highway safety during my participation in the study.

I further understand that the personal risks during my participation in the study are virtually none. However, I may withdraw my participation at any time I wish without any negative consequences for me.

I understand that any personal information obtained from me will be kept in strict confidence and that my name will not be revealed by the directors of the study. All information will be identified by assigned codes to ensure the confidentiality indicated above.
I further understand that any question or complaint that may arise in the future will be answered by calling Dr. Michele Burnette at (616) 387-4472 or Mr. Senez Rodriguez at (616) 241-2871.

My signature below indicates that I have read this document and that I have decided to participate voluntarily in this important study.

Note: You may keep a copy of this document if you wish.

Signature _____________________________ Date __/__/____ Time _______

Director of the Study ___________________________________________
CONSENTIMIENTO DE PARTICIPACION EN EL ESTUDIO DEL CINTURON DE SEGURIDAD

Yo entiendo que he sido invitado a participar en un estudio titulado "El Uso del Cinturón de Seguridad Entre los Hispanos". El propósito de este estudio es descubrir métodos apropiados para el aumento del uso voluntario del cinturón de seguridad en la comunidad hispana de Grand Rapids.

Mi participación en este estudio estará limitada a la posible observación de la frecuencia con que uso el cinturón de seguridad y a la posible participación en algunas reuniones de orientación sobre la importancia e implicaciones del uso o no uso del cinturón de seguridad al manejar mi auto.

También entiendo que mi participación voluntaria me dará derecho a los sorteos que se realizarán dentro del grupo según programado por los encargados del estudio. Además obtendré conocimientos de seguridad en las carreteras durante el transcurso del estudio.

Entiendo así mismo que el riesgo personal al participar en este estudio es prácticamente ninguno. Sin embargo, entiendo que podré abandonar mi participación en el estudio en cualquier momento que estime necesario sin ningún tipo de consecuencias negativas para mí.

Entiendo que cualquier información personal que yo esté dispuesto a dar sobre mí, será mantenida en estricta confidencia y mi nombre no será revelado por los directores del estudio. Toda información será identificada por medio de un código asignado para asegurar la confidencialidad arriba mencionada.
Entiendo también que cualquier pregunta o queja que pueda surgir en el futuro será contestada comunicándome con la Dra. Michele Burnette al teléfono (616) 387-4472 o con el Sr. Senez Rodríguez al teléfono (616) 241-2871.

Mi firma a continuación indica que he leído y entendido la información aquí contenida y que he decidido participar en este importante estudio.

Nota: Usted puede conservar una copia de este documento si así lo desea.

Firma __________________________ Fecha __/__/____ Hora ______

Director del Estudio____________________________

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Appendix K

Human Subjects Institutional Review Board
Letter of Approval
TO:       Senez Rodriguez-Charbonier E.R.R.
FROM:    Ellen Page-Robin, Chair
RE:       Research Protocol
DATE:   December 8, 1988

This letter will serve as confirmation that your research protocol, "Seat Belt Usage Among Hispanics" is now complete and has been signed off by the HSIRB.

If you have any further questions, please contact me at 387-2647.
BIBLIOGRAPHY


Kidsafe (Producer), & Tober, M. M. (Director). (1985). Es un salvavidas (It is a lifesaver) [Videotape]. San Antonio, TX: University of Texas Health Science Center.


