Women as Motivators in the Use of Safety Belts

Gary L. Martin, PhD; Ian M. Newman, PhD

ABSTRACT: A sample of rural and urban women was interviewed using a questionnaire based on Fishbein's and Ajzen's Theory of Reasoned Action. Two hundred women were asked about their intentions to use safety-belts and to encourage others to use safety-belts. Both intent and nonintent women highly valued saving lives, feeling safer, and reducing the likelihood of injuries, but they differed markedly in their beliefs that using safety-belts would necessarily save life, enhance their feeling of safety, and reduce the likelihood of injuries. Intent and nonintent users differed least in their beliefs that safety-belts would reduce injuries. Women who intended to use their safety-belts felt their action would encourage others to use belts and believed that they should encourage others to use their safety-belts. These intent safety-belt users did not see a strong social support for encouraging others to use safety belts and therefore were unlikely to do so. Programs to promote safety-belt use would capture the generally supportive attitudes of women if they could assist women to develop skills and confidence to express effectively their existing predisposition for safety-belt use.

The purpose of any safety program is ultimately to reduce the morbidity and mortality associated with specific human behaviors. Prevention efforts aim at some intermediate changes in behavior which are strongly associated with the cause of morbidity or mortality. For example, attempts are made to increase safety-belt use because there is a clear relationship between safety-belt use and reductions in injuries and deaths associated with automobile accidents.[1]

Data from a variety of sources suggest that women are more likely to use safety-belts, support safety-belt initiatives, and transport children, and so they have ample opportunity for modeling safety belt use and for encouraging others to use safety-belts.[2-4] Building on this generally favorable disposition toward safety-belt use, this study attempted to determine more specifically the attitudinal and social factors associated with women's intentions to wear safety-belts, and to determine more clearly women's intentions to encourage others to wear safety-belts.[5] Knowledge of these issues was considered essential for planning the appropri-

Gary L. Martin, PhD, is Associate Professor of Health Education, University of Nebraska-Lincoln. Ian M. Newman, PhD, is Professor of Health Education and Director of the Nebraska Prevention Center for Alcohol and Drug Abuse, University of Nebraska-Lincoln. This paper is Based on work conductd by Health Education Inc., of Lincoln, Nebraska, under contract to the Nebraska Office of Highway Safety.
Address corespondence to Ian M. Newman, PhD,125 Bel Lee Hall, University of Nebraska-Lincoln, NE 68588-0229

others to wear their safety-belts. Form B reversed the order. The questionnaires were distributed in ABAB order. The convenience random sample for the full study was obtained the same way as the elicitation sample. A total of 240 questionnaires was distributed and telephone follow-ups were used to achieve an 80% return rate of 200 usable questionnaires.

The attitude about the intent to wear safety belts and to encourage others to wear safety belts was determined by measuring eight salient beliefs about the behavior, multiplying each belief (likely-unlikely) by the individual's evaluation of the consequences of the behavior (good-bad) and summing the products. Similarly the social norm was defined as the sum of the perceived wishes of four significant others and the motivation to comply with the wishes of each of the four significant others.

RESULTS

Intention to Wear Safety Belts

Nearly 80% of the women responding indicated some intention to wear a safety belt, a much larger percentage than found in observational surveys of actual safety belt use in the same state.[12] To analyze the factors associated with the intention to wear a safety belt, those who indicated they were "likely" or "very likely" to wear a safety belt were defined as "intent" users; all others were defined as nonintent safety belt users.

Intent safety belt users tended to be older, more likely married, and more likely to be residents of cities of more than 100,000 population.

To assess the contribution of attitude and social norm to the prediction of intention to use safety belts, a stepwise regression yielded a multiple R of .610 with the attitude score significantly correlated with the intent to wear a safety belt ($F = 106.86$; $p < .0001$; $df = 1,180$). Thus, the attitude score predicted 37% of the variance in safety belt use intention. The social norm score did not independently improve the prediction of intent.

The components of attitude as defined by Fishbein and Ajzen, the individual beliefs and the evaluation of those beliefs toward wearing a safety belt, are shown in Table 1 and provide useful data for planning educational programs. In interpreting the belief and evaluation scores it is important to consider three factors: (a) the direction and strength of the belief and the evaluation (likely, neutral, or unlikely; good, neutral or bad), with the larger numbers indicating a more strongly held belief; (b) the sign indicating the direction of the belief; (c) the variability of the belief as indicated by the standard deviation; and (d) the difference between the beliefs, evaluations held by the intent and the nonintent groups, indicated by the t statistic.

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Women intent on wearing safety belts had much higher belief scores (stronger beliefs) than nonintent women. Table 1 shows the beliefs strongly held (greater than 2 on the 7-point bipolar scale) by women intent on wearing safety belts to be wearing my seat belt would (a) save my life; (b) make me feel safer; (c) reduce my chance of being injured; and (d) would take too much of my time. All beliefs appear to be markedly different for the intent and nonintent women. Two beliefs were in opposite directions; thus identifying a fundamental difference between the two groups: Wearing my seat belt would be uncomfortable; I would encourage others to wear their seat belts.

The second portion of Table 1 provides

Table 2
The Components of Social Normative Factors About Safety Belt Use

A. SOCIAL NORM

Score: -3 = Very likely O = Neither +3 = Very unlikely

"_____ thinks I should wear my seat-belt in the next week."

	Intent		Nonintent			
	$\bar{X}$	SD	$\bar{X}$	SD	t	df
•The people who are most important to me	-2.07	1.29	0.05	2.02	8.63*	183
•My Husband/boyfriend	-1.46	1.76	0.95	1.96	8.32*	180
•My friends	-1.24	1.53	0.97	1.67	8.50*	179
•My relatives	-1.52	1.53	0.69	1.87	8.50*	181

B. MOTIVE TO COMPLY

Score: -3 = Very good O = Neither +3 = Very bad

"When it comes to wearing my seat-belt in the next week, I usually do what _____ think I should do."

	Intent		Nonintent			
	$\bar{X}$	SD	$\bar{X}$	SD	t	df
•The people who are most important to me	-0.94	1.98	0.70	1.86	5.40*	183
•My Husband/boyfriend	-0.62	2.01	1.03	1.74	5.39*	179
•My friends	-0.18	1.87	1.25	1.54	5.10*	181
•My relatives	-0.54	1.98	1.20	1.56	5.95*	180

*$p < .001$

Table 3
Intent to Encourage Safety Belt Use

A. BELIEFS

Score: -3 = Very likely O = Neither +3 = Very unlikely

"For me encouraging others to wear their seat-belt would ..."

	Intent		Nonintent			
	$\bar{X}$	SD	$\bar{X}$	SD	t	df
• show my concern for them	-2.60	0.64	-0.81	1.73	10.16*	181
• end up in a debate or disagreement	0.17	1.88	-0.50	1.56	2.39	181
• make me more comfortable driving	-2.14	1.24	-0.08	1.80	9.08*	183
• make them mad	0.93	1.77	-0.13	1.66	3.89*	181
• save their life	-2.10	1.04	-0.74	1.63	6.84	180
• interfere with their rights	0.92	1.88	-0.80	1.86	5.82*	181
• reduce my liability in case of an accident	-1.39	1.76	-0.17	1.86	4.25*	178
• cause them to be trapped in case of an accident	1.53	1.54	-0.25	1.66	7.15*	181

B. EVALUATION OF BELEIFS

Score: -3 = Very good O = Neither +3 = Very bad

"For me, _____ is very good/very bad."

	Intent		Nonintent			
	$\bar{X}$	SD	$\bar{X}$	SD	t	df
• show my concern for others	-2.72	0.48	-2.34	0.64	4.49*	182
• end up in a debate or disagreement	0.45	1.42	0.97	1.41	2.31	180
• make me more comfortable driving	-2.15	0.99	-2.10	0.71	0.32	181
• make them mad	1.35	1.21	1.74	0.99	2.17	179
• save their life	-2.74	0.67	-2.35	0.86	3.35	180
• interfere with their rights	1.03	1.14	1.66	1.17	3.44*	177
• reduce my liability in case of an accident	-2.23	1.14	-1.72	1.42	2.90	182
• cause them to be trapped in case of an accident	1.89	1.31	2.02	1.20	0.62*	179

*$p < .001$

ated very strongly by both groups ("very good" to "good"): For me, (a) showing concern for others is very good; (b) making myself comfortable driving is very good; (c) saving others' lives is good; and (d) reducing my liability in case of accidents is very good.

Examination of the components of the social norm (Table 4) suggests a tendency for intent women to believe that their friends and relatives want them to encourage others to wear their safety belts, while the nonintent women had the opposite view of their friends and relatives. The evaluation of these beliefs suggests that neither group of women is strongly affected by the wishes of their friends and relatives. The nonintent women were more unlikely to comply with the wishes of their friends and relatives; the intent women were essentially neutral.

DISCUSSION

Personal Use of Safety-Belts

These results suggest that both intent and nonintent female safety-belt users highly value saving life, feeling safer and reducing likelihood of injury (Table 1B), but they differ markedly in their beliefs that using safety-belts will necessarily save life, enhance a feeling of safety, or reduce the likelihood of injuries (Table 1A). Education has failed to link safety-belts to these important values for those who do not intend to wear safety-belts.

Table 1 suggests that while intent and nonintent safety-belt users differ in their beliefs, they differ least in their belief about safety-belts' reducing injuries. This similarity could be important in planning and conducting safety-belt education initiatives. Frequently the value of safety-belt use is associated with reduced deaths on the assumption that death is a more salient and motivating concept than injury and that data support the epidemiological significance of death. On the contrary death is a difficult concept to think about and one avoided by many people. Injury however is a less threatening concept. Injured people are seen and known by most of the public, and the concept of personal injury is salient to most people.

The nonintent women were more unlikely to comply with the wishes of their friends and relatives; the intent women were essentially neutral.

The significance of the relationship between safety-belt use and injury is more clear in epidemiological studies than the relationship with death.[1,13] For example, while Nebraska's mandatory use law was in effect, a significant reduction in injuries but not deaths was recorded.[14] So there exists both epidemiological and psychological evidence to suggest educational programs could build on the nonintent safety-belt users' already valued belief: reducing injuries. Safety-belt use is not seen by nonintent users as especially effective in saving lives. At this point we don't know if this is simply a knowledge deficit or a mistaken belief. It is likely, however, that focused education programs could overcome a knowledge deficit and could build on the already identified beliefs about injury reduction. Reduced death, in other words, should give way to injury reductions as the principal benefit associated with safety belt use.

Absent among nonintent users is the belief that "people who are important" to them or the more specific significant others (husband/boyfriend, friends, relatives), want them to wear safety-belts (Table 2A). This finding contrasts the strong belief or support for belt use by the "most important" people in the lives of the intent users and for the moderate support for belt use by husband/boyfriend, friends and relatives. For intent users the importance of this belief of support is increased by their moderate desire to

budgets are limited, the potential to focus available resources on carefully targeted outcomes is useful. The very specific program objectives that can be developed from the type of data provided by this model make program evaluation, using both process and outcome measures, a concise task greatly increasing its utility. For health-promotion planners in states that already have mandatory safety-belt use laws, the type of data provided by this study could be useful in encouraging acceptance of the law and increasing compliance. In states without mandatory use laws, the Theory of Reasoned Action provides data very useful in encouraging belt use in the absence of a law and also useful in planning the political activities needed to encourage the passage of mandatory use laws.

While differentiating between males and females is not always popular, this project suggests that the different characteristics of the two genders may need to be considered in planning effective health-promotion initiatives.

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