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Abridgment

Countering Sign Vandalism with Public Service Advertising

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ABSTRACT

Nationwide, millions of dollars are spent each year replacing stolen and vandalized signs. In Iowa, sign vandalism creates hazards that cost taxpayers over \$1 million per year. Research that was conducted in Iowa to determine teenagers' attitudes toward and perceptions of the sign vandalism problem is discussed. On the basis of the research, public service advertising messages were developed and tested in a university newspaper. The ads were shown to be significantly effective in raising students' awareness of the fines and penalties attached to sign vandalism. Public service advertising is strongly recommended as an effective countermeasure that should be pursued at the national, state, and local levels to combat sign vandalism.

In a study compiled for the Transportation Research Board in 1983 by Chadda and Carter (1), it was noted that about \$50 million is being spent annually in the United States by state departments of transportation to replace stolen and vandalized highway signs. In addition, the indirect costs incurred by

state governments for injury and tort liability in accidents that result from missing and vandalized highway signs are estimated to be of about the same magnitude.

Highway signs have become a symbol of modern culture to today's teenagers. They often hang stolen highway signs on the walls of their university dormitories and fraternity or sorority houses (1). So common is the practice of using highway signs as room decorations that stop signs can even be seen on

current television shows (The Whiz Kids, CBS, 1984) hanging on the kids' bedroom walls. In current catalogs of home furnishings (J.C. Penney's, Fall 1985) signs are displayed as the typical wall hanging in a teenager's room.

Vandalism has been described in the literature as an activity that is most common among teenage boys (2-4). Studies show that vandalism is seldom committed alone. Around 90 percent of all vandalism is committed by groups of teenagers (5).

THE SITUATION IN IOWA

Stealing or vandalizing a highway sign is a crime under Iowa law. However, few vandals are caught or prosecuted because most acts of vandalism toward signs occur at night and in areas where there is little surveillance.

With regard to accidents that occur because of sign vandalism, exact statistics are not known. However, several people have been injured in Iowa, and at least one person was killed in an accident that occurred where a sign was missing. A 1982 legal case involving an accident directly attributable to a stolen sign cost the state \$250,000.

PUBLIC SERVICE ADVERTISING

Recent research on the persuasive effects of media campaigns has produced some striking data on their effectiveness (6-8). Several theoretical models have been suggested to explain the persuasive effects of mass media messages on public attitudes, perceptions, and behaviors (9). With varying degrees of sophistication, these authors suggest that attitude and behavior change take place in a linear fashion, beginning with the building of awareness or knowledge and culminating in behavior change (9,10).

Chadda and Carter (1) note that media campaigns have been used in certain states to reduce the incidence of sign vandalism. The purpose of their study was to develop public service messages that could be effective in raising teenagers' awareness of the problem and the consequences of sign vandalism.

RESEARCH QUESTIONS

In order to develop advertising messages that would have salience for the target audience, data were first needed on the attitudes, perceptions, and knowledge levels of teenagers regarding sign vandalism. A survey was designed to gather information on the following research questions:

1. How widespread is the incidence of sign vandalism?

2. Do teenagers perceive of sign vandalism as a serious crime?

3. Is public service advertising an effective way to raise awareness among teenagers of the problem and the consequences of sign vandalism?

METHODOLOGY

A questionnaire was distributed to 506 Iowa teenagers (207 males and 299 females). The sample represented a broad range of Iowa's teenage population.

In addition to the survey, formative research was gathered in an attempt to identify leads for the development of mass media messages. Focus group interviews were conducted with teenagers who admitted to having first-hand knowledge of sign vandalism. Although the survey enabled the identification of attitudes, perceptions, and behaviors, the formative research provided a way to probe deeper into the motivations for sign vandalism.

Based on the survey data and interviews, four print advertisements were prepared and tested. These ads were run over a period of 6 weeks in The Iowa State Daily. A random sample of college students was surveyed before and after the campaign appeared in the newspaper to determine the effectiveness of the advertisements.

SURVEY RESULTS

In order to determine how widespread the incidence of sign vandalism was respondents were asked whether they had ever been part of a group that had stolen or vandalized a sign. They were also asked whether they had ever individually stolen or vandalized a sign. Table 1 presents the data gathered on these questions.

Approximately 20 percent of the total sample said that they had been part of a group that had stolen a sign. Sign theft appeared to be the most prevalent type of sign vandalism and it appeared to be a group, rather than an individual, activity.

In order to determine how widespread sign vandalism was, teenagers were asked if they knew anyone who had a sign as a room decoration. Approximately 71 percent of the sample admitted knowing someone who had a stolen sign in his or her room.

It was hypothesized that teenagers might not be aware of the traffic danger that results when signs are stolen or vandalized. However, when asked whether they thought stealing stop signs would create dangers to drivers, approximately 97 percent of the sample said that the removal of a stop sign would very likely result in a traffic accident. Ironically, although they appeared to be aware of the dangers of removing a sign, few appeared concerned about taking action to stop sign vandals. When asked what they

TABLE 1 Incidence of Sign Vandalism

Question	Percent Answering "Yes"		
	Males (N=207)	Females (N=299)	Total (N=506)
Have you ever been part of a group that has taken a sign?	27	14	20
Have you ever been part of a group that has painted on a sign?	5	5	5
Have you ever been part of a group that has shot at a sign?	26	4	14
Have you ever personally taken a sign?	17	7	11
Have you ever personally painted on a sign?	3	3	3
Have you ever shot at a sign?	22	3	10
Have you ever run down a highway sign?	8	4	6

would do if they saw a sign being stolen or vandalized, 63 percent said they they would ignore the act. The total responses to this question were as follows ($\chi^2 = 35.82$, $p < .0001$):

Response Choice	Total Percent
Tell them to stop	11
Report them to the authorities	26
Ignore them	63

FORMATIVE RESEARCH

The qualitative data gathered in focus groups with sign vandals provided useful insights into the sign vandalism problem. Generally, students perceived of sign theft and vandalism as a prank rather than a serious crime. These kinds of comments were recorded in the focus groups:

It's not really stealing, I just took a sign.

Within a few days they usually have the signs replaced. They have more than enough signs

to replace the one I take. If they can replace them in a few days, then what's the big deal? No one gets hurt because the sign is missing.

It isn't stealing. My taxes paid for them.

Ironically, two students added that although they had stolen a sign, they would never deface signs because that was "silly and unnecessary and could lead to serious traffic accidents."

When students were asked to explain why they had taken the signs, the answers varied. These are a few comments that were recorded:

They really make neat room decorations, especially stop signs. I stole a cow crossing sign once because my friend in Illinois lives on a ranch and Illinois doesn't have as creative cow crossing signs as Iowa does.

I guess the sign is some sort of a status symbol because it proves you had to go through something to get it.

PAINTING ON SIGNS



IT'S NO JOKE
IT'S A CRIME

Every year thousands of highway signs are stolen or destroyed by vandals. You've probably seen the mutilated, bullet-ridden signs along Iowa's rural roads. And the spray painted signs on Iowa's city streets. They're dangerous enough.

But it's the stolen signs that are the most dangerous. Because you don't see them.

They're not there when you need them. They're hanging on some vandals' bedroom wall. And without those signs driver's don't know when to stop. Or yield. Or slow down.

Sign vandalism isn't just a childish prank. It's a serious crime in Iowa. Punishable by stiff fines and jail sentences. Stop sign vandalism.

	MAXIMUM FINE	JAIL TERM
CAUGHT IN THE ACT	\$1,000	1 YEAR
POSSESSION OF A SIGN	\$100	30 DAYS



SIGN VANDALISM COSTS IOWANS \$1,000,000 A YEAR



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CAUGHT IN THE ACT	\$1,000	1 YEAR
POSSESSION OF A SIGN	\$100	30 DAYS



FIGURE 1 Public service advertisements to combat sign vandalism.

STEALING SIGNS



**IT'S NO JOKE
IT'S A CRIME**

Some kids think it's fun to steal highway signs. They say that highway signs look great hanging on a bedroom wall.

If you think stealing signs is just a harmless prank, maybe you should take a closer look at the picture above. This accident occurred because a stop sign was missing. Stolen. Taken by a vandal who wanted a room decoration.

Missing and damaged signs cost Iowa taxpayers over \$1,000,000 a year. Sign vandalism isn't funny. It's dangerous. Stealing or defacing traffic signs is a serious offense in Iowa punishable by stiff fines and jail sentences. So if you know someone who thinks it's fun to steal signs, or shoot at them or spray paint on them, maybe you should do them a favor and show them this ad.

Ask them if they think that picture's funny.

	MAXIMUM FINE	JAIL TERM
CAUGHT IN THE ACT	\$1,000	1 YEAR
POSSESSION OF A SIGN	\$100	30 DAYS



SHOOTING SIGNS



**IT'S NO JOKE
IT'S A CRIME**

Every year thousands of highway signs are stolen or destroyed by vandals. You've probably seen the mutilated, bullet-ridden signs along Iowa's rural roads. And the spray painted signs on Iowa's city streets. They're dangerous enough.

But it's the stolen signs that are the most dangerous. Because you don't see them.

They're not there when you need them. They're hanging on some vandals' bedroom wall. And without those signs driver's don't know when to stop. Or yield. Or slow down.

Sign vandalism isn't just a childish prank. It's a serious crime in Iowa. Punishable by stiff fines and jail sentences. Stop sign vandalism.

	MAXIMUM FINE	JAIL TERM
CAUGHT IN THE ACT	\$1,000	1 YEAR
POSSESSION OF A SIGN	\$100	30 DAYS



FIGURE 1 continued.

I mean, if you see a stop sign in someone's room, you can imagine what they've gone through. You could just buy a poster or something like that in a store.

THE PUBLIC SERVICE ADVERTISEMENTS

The survey data and formative research provided valuable insights for the development of the public service advertising campaign. The objectives for the advertising campaign were

- To increase awareness among the primary target audience of the fact that \$1 million is spent annually to replace stolen and vandalized signs,
- To increase awareness among the target audience of the serious traffic accidents that can result from a missing or defaced sign, and
- To increase awareness among the primary target audience that sign vandalism is a crime with serious consequences by stressing the severe fine (\$1,000) and the maximum jail sentence (1 year in jail) in the advertising campaign.

The slogan that was chosen as the campaign theme was "Sign vandalism. It's no joke. It's a crime." It was hoped that the slogan would reinforce the perception that sign vandalism was a serious crime.

Each of the advertisements had a headline that identified a specific sign vandalism problem, followed by the slogan line. The copy explained the problem in greater detail. A grid that graphically showed the fines and penalties attached to sign vandalism appeared in each ad. The advertisements are shown in Figure 1.

TESTING THE ADVERTISEMENTS

The aim of pretesting advertising messages is to determine whether the advertisements are capable of producing a trend in the desired direction of attitude and behavior change in the target audience. The Iowa State University campus was selected as the site for the pretest and posttest because of the availability of the campus newspaper, The Iowa State Daily, which offered a greater degree of control in disseminating the messages than did the commercial mass media.

A random sample of 250 undergraduates was contacted by telephone before and after the advertisement appeared in The Iowa State Daily. Different students were selected for the pretest and posttest. The advertisements ran a total of eight times over a 6-week period. The results of the tests are presented in Table 2.

TABLE 2 Pretest and Posttest Comparison of Students' Knowledge About Sign Vandalism

	Percent Correct Responses	Percent Incorrect Responses
Fine for Stealing Signs ^a ($\chi^2 = 65.37$, $df = 1$, $p < .05$)		
Pretest	16	84
Posttest	51	49
Fine for Possession of Stolen Sign ^b ($\chi^2 = 4.38$, $df = 1$, $p < .05$)		
Pretest	48	52
Posttest	57	43
Jail Term for Sign Vandalism ^c ($\chi^2 = 35.96$, $df = 1$, $p < .05$)		
Pretest	39	61
Posttest	66	34
Yearly Cost to Iowa of Sign Vandalism ^d ($\chi^2 = .697$, $df = 1$, $p < .05$)		
Pretest	19	81
Posttest	22	78

^aCorrect response: \$1,000; incorrect responses: \$25, \$100, other.

^bCorrect response: \$100; incorrect responses: \$25, \$1,000, other.

^cCorrect response: 30 days; incorrect responses: none, 1 year, other.

^dCorrect response: \$1 million; incorrect responses: \$1,000; \$500,000; other.

CONCLUSIONS

Sign vandalism is a costly problem that creates hazards. It requires a concerted effort at the national, state, and local levels. Yearly national cost for replacing stolen and vandalized signs has been estimated to be in excess of \$50 million.

This study suggests that public service advertising can be an effective method for increasing awareness among teenagers of the serious consequences of vandalizing highway signs. In three out of four cases, the knowledge levels of teenagers significantly increased with exposure to the print advertisements. Whether or not the increased knowledge of the fines and penalties for sign vandalism will ultimately effect behavior change is beyond the scope of this study. However, behavior change is the long-term goal of any social change public service advertising campaign.

Chadda and Carter (1) noted that the state of Wisconsin was able to reduce the incidence of sign

vandalism by 57 percent with the use of brochures, media announcements, and educational materials developed for driver's education classes. It is the author's contention that public service advertising combined with other educational materials can be an effective method for reducing sign vandalism throughout the United States.

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