

Mass Media Strategies Targeting High Sensation Seekers: What Works and Why

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Objectives: To examine strategies for using the mass media effectively in drug prevention campaigns targeting high sensation seekers. **Methods:** Both experimental lab and field studies were used to develop a comprehensive audience segmentation strategy targeting high sensation seekers. **Results:** A 4-pronged targeting strategy employed in an antimarijuana media campaign yielded significant drops in 30-

day marijuana use by adolescents. Other research demonstrates how high and low sensation seekers process antidrug ads differently. **Conclusions:** Mass mediated anti-drug campaigns aimed at high sensation seekers are effective tools for drug prevention.

Key words: drug prevention, media campaigns, sensation seeking, processing

Am J Health Behav. 2003;27(Suppl 3):S233-S238

The US Congress created the National Youth Anti-Drug Media Campaign when it allocated \$1 billion to the Office of National Drug Control Policy (ONDCP) to oversee the effort.^{1,2} This colossal investment demonstrates the confidence often placed in the mass media to facilitate changes in drug behaviors.³⁻⁶ Former National Institute on Drug Abuse director Alan Leshner accurately asserted that the “methodological sophistication of current media researchers has enabled us to gain considerable insight into methods of drug abuse prevention” (pp. ix-x).⁷ This methodological sophistication⁸ in combination with the mass media’s ability to successfully reach large audiences⁴ has led prevention specialists to regard the mass media as one of the valued components in the nation’s

fight against adolescent drug use.²

One mass media strategy employed in substance abuse research is SENTAR, which stands for sensation-seeking targeting.⁹ SENTAR is a theoretically based and empirically tested mass media targeting strategy for reaching high sensation seekers with advertisements that appeal to their need for stimulation. My purpose here is to review this media-based approach to drug prevention. First, I provide the theoretical foundation and the formative concepts that drive this line of research.^{10,11} The second section demonstrates how the theoretical perspective is applied through mass media interventions.^{5,6,12} Finally, I discuss the cognitive mechanisms that explain why these media messages are successful in persuading sensation seekers.¹³⁻¹⁵

Sensation Seeking Targeting

Sensation seeking is a personality trait believed to have a biological basis that expresses a need for physiological arousal, novel experience, and a willingness to take social, physical, and financial risks to obtain such arousal.¹⁶⁻¹⁸ Sensation seekers, for example, might savor the experi-

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ence of riding a new roller coaster or diving from a bungee platform, often describing their psychobiological reaction as a "rush."¹⁹ Zuckerman¹⁷ claims that sensation seeking is based upon the idea "that persons differ reliably in their preferences for or aversions to stimuli or experiences with high-arousal potential" (p. 174). Thus, individuals with a high need for sensation desire "complex experiences and [exhibit] the willingness to take risks for these experiences" (p. 196).²⁰

Some of these risks involve the use of illegal drugs. In fact, sensation seeking is a robust predictor of the use of a variety of drugs and earlier onset of use.²¹⁻²⁴ These relationships have been documented repeatedly²⁵ in samples of adolescents and adults.^{26,27} For example, high sensation seekers are more likely to begin experimenting and using drugs at an earlier age than do low sensation seekers as well as use higher levels of a variety of different drugs.²⁰

From a mass media perspective, sensation seekers' thirst for novelty and stimulation is also reflected in very distinct media preferences. For example, high sensation seekers prefer television advertisements that are novel, dramatic, intense, exciting, suspenseful, or fast.²⁵ In contrast, low sensation seekers prefer ads that are far less stimulating. Such contrasting preferences, following earlier work by Berlyne²⁹ and Zuckerman,^{16,17} led to the development of the concept of message sensation value. *Message sensation value* refers to the degree to which formal and content audiovisual features of a message elicit sensory, affective, and arousal responses.^{27,30} The greater the arousal, the higher the sensation value of a message. Hence, high sensation seekers prefer messages that are higher in sensation value; low sensation seekers prefer messages that are lower in sensation value.

Theoretically, the activation model of information exposure provides a basis for understanding the relationship between sensation seeking and stimulation received from the mass media.^{10,11} The theory has 2 propositions: (1) individuals have an optimum level of activation or arousal at which they feel most comfortable, and (2) as individuals enter information exposure situations, they expect to achieve or maintain this optimal level of arousal. Hence, when a media message is suffi-

ciently stimulating to meet high sensation seekers' optimal arousal level, they will attend to the message. If a message is too stimulating or not stimulating enough, high sensation seekers search out an alternative medium more consistent with their desired arousal level. The process is similar for low sensation seekers, but because high sensation seekers tolerate higher levels of stimulation than low sensation seekers, the optimal level of arousal is greater for high than low sensation seekers.

These theoretical principles are illustrated in a study of anticocaine television advertisements. Everett and Palmgreen²⁷ determined that anticocaine ads that were high in message sensation value were more effective than low sensation value ads in enhancing recall, promoting more anticocaine attitudes, and reducing intentions to try cocaine among high sensation seekers. Low sensation seekers displayed the opposite pattern. A different study by Lorch and colleagues³¹ used an eyes-on-screen measure of attention to investigate the role of sensation value in both program context and ads. They found that high-sensation-seeking young adults not only paid more attention to high sensation value programs; they also paid greater attention to high sensation value antidrug ads embedded in these shows. The opposite effect was detected for low sensation seekers. These 2 studies illustrate that high sensation seekers have a higher optimal level of arousal than low sensation seekers. More important, antidrug ads that are arousing and stimulating (ie, that are high in message sensation value) are much more effective with high sensation seekers than are ads that do not sustain their desired arousal levels (ie, that are low in message sensation value).

SENTAR (sensation-seeking targeting) is a mass media strategy designed to target high sensation seekers with high sensation value messages.^{5,12,32,33} SENTAR has largely been applied in drug prevention campaigns although some components of this strategy have recently been integrated into HIV prevention campaigns for adolescents.³⁴ SENTAR advocates 4 principles for designing campaigns: (1) employ the sensation seeking trait as a major targeting variable; (2) design prevention messages that are high in sensation value to reach high sensation seek-

ers;²⁷ (3) employ precampaign research with high-sensation-seeking members of the target audience;²⁵ and (4) place prevention messages in high-sensation-value contexts such as those television programs most likely to be watched by high sensation seekers.³³ These 4 principles are the cornerstones of several antidrug campaign field studies.

Field Studies Applying Sensation Seeking Targeting

The hotline campaign. The hotline antidrug ad campaign was targeted to 18- to 25-year-old high sensation seekers in Lexington, Kentucky.³³ Prior to the campaign and consistent with the SENTAR strategy, multiple advertisement concepts were pretested extensively in focus groups with the target audience.²⁵ From these concepts, 2 high sensation value ads were produced by a professional media firm. Just over \$61,000 in media airtime was purchased so that the campaign ads would appear in television programming viewed often by high sensation seekers. The duration of the campaign was 5 months. The 2 ads produced specifically for this field study were combined with 3 other high-sensation-value ads produced by the Partnership for a Drug-Free America and rotated in flights throughout the 5-month campaign period.

The thrust of 2 new ads produced for the campaign was to emphasize alternatives to drug use for meeting sensation needs. Thus, both high sensation value ads featured a 1-800 hotline phone number to obtain *A Thrillseeker's Guide to the Bluegrass*. This 20-page full-color guidebook explained the concept of sensation seeking, its connection to drug use, and listed a host of thrill-seeking activities available in the area and surrounding counties.

The results of the campaign affirmed the premise of the study that high sensation seekers were most likely to respond to the high sensation value ads. Over the 5-month duration of the campaign, 2128 individuals called the hotline. In addition to receiving the guide, callers were asked to complete a mail survey (response rate was 74%) and 73% of the callers were classified as high sensation seekers (when compared to precampaign survey data collected on a separate sample of the target audience). Additionally, a posttest phone survey conducted at the conclu-

sion of the campaign showed that drug users were significantly more likely than nonusers to recall seeing the 2 campaign ads. Moreover, high sensation seekers were significantly more likely than low sensation seekers to recall seeing the 2 campaign ads compared to other anti-drug ads that were airing. The campaign's outcomes are discussed elsewhere in greater detail including the results of a within-campaign study.²⁵ Overall, though, the campaign was successful in reaching the target audience of high-sensation-seeking young adults with high sensation value prevention messages.

The 2-cities campaign. A second field experiment provides clear and convincing evidence of changes in 30-day marijuana use by high-sensation-seeking adolescents in conjunction with a SENTAR media campaign.^{5,6} The "Two Cities" ad campaign targeted high-sensation-seeking adolescents in 2 comparable cities, Lexington, Kentucky and Knoxville, Tennessee.¹² For this campaign, 5 high sensation value ads were produced after extensive concept pretesting with the targeted adolescent audience. The first 4-month campaign was conducted in Lexington while Knoxville served as a control city. The second 4-month campaign was conducted in both cities a year later. Following SENTAR, sensation seekers were targeted with high sensation value messages that were pretested extensively. As before, over \$60,000 in media airtime was purchased in order to strategically place the ads in each campaign. Local network affiliates and the cable company matched our media purchases; hence we actually received 2 ad purchases for the cost of one. According to gross rating point (GRP) data (a measure of audience exposure), this high ad frequency resulted in at least 70% of the targeted age group being exposed to a minimum of 3 campaign ads per week. This resulted in an average of 777 paid spots and 1160 unpaid spots per campaign. All ads quickly achieved high levels of audience penetration.

Evidence in support of the campaign's role in declining 30-day marijuana use is provided in a time-series analysis of 32 data points representing our monthly interviews of 100 adolescents in each county. Adolescents were in the 7th through 10th grades when data collection began, and we sampled from this cohort

throughout the 32-month duration of the study. Data collection began in both cities 8 months prior to the first campaign (conducted in Lexington) and continued for 8 months after the final campaigns (conducted simultaneously in both cities). Precampaign data provided us with the trend in marijuana use prior to the intervention and postcampaign data provided information about how long any campaign effects would last.

In both cities, marijuana use increased steadily prior to the intervention. However, when all campaigns were complete, the time-series analyses revealed a significant drop in 30-day marijuana use among the targeted high sensation seeking adolescents. In fact, the campaign propagated a 38% decrease in monthly marijuana use among high sensation seekers in Lexington, Kentucky and a 27% decrease among high-sensation-seekers in Knoxville, Tennessee. Time-series plots documenting the trends, as well as more detail about the planning and evaluation, are available elsewhere.^{5,6}

It would be inappropriate to broadly conclude that televised antidrug ads produce behavior change or that ads alone are sufficient for drug-prevention purposes. The time-series analyses do indicate that antidrug ads can affect drug behavior, but only when carefully targeted campaigns achieve high levels of reach and frequency and when messages are designed specifically for the target audience on the basis of theory and formative research. Clearly, however, television ads can play an important role in subsequent prevention efforts.

When we examined the campaign exposure data, we determined that high sensation seekers were significantly more likely to have viewed the campaign ads than low sensation seekers.⁹ We also found that those who viewed campaign ads also were more likely to have experienced poor family relations, perceived their friends and some family members use marijuana, and maintained promarijuana attitudes. Hence, the ads were reaching a segment of the adolescent population, beyond sensation seekers, that were also at-risk for using marijuana.

Mechanisms Influencing Persuasion

The behavioral evidence for the effectiveness of the SENTAR approach is compelling. However, it became clear that

although we knew how to employ these techniques successfully, we knew less about the cognitive and affective mechanisms that yielded these results. That is, when individuals watch antidrug television ads, we wanted to know what factors were influencing the processing and the persuasiveness of the ads. These questions and others were examined in recent experimental research with adolescent viewers of antimarijuana television ads and young adult viewers of antiheroin television ads.

Several mediators were considered in examining the influence of an ad on anti-drug attitudes. In particular, emotional responses to antidrug ads were of considerable interest given the stimulating and arousing nature of high sensation value ads. Additionally, we examined the influence of 3 other elements: the visual and sound effects (sensory processing), the storyline (narrative processing), and the consequences of drug use portrayed in the ads (argument-based processing). These influence of these mediating factors were expected to differ for high and low sensation seekers; hence sensation seeking was examined as a moderating variable.

Adolescents and antimarijuana ads.

Two broad conclusions emerged from the initial study examining the processing of antimarijuana ads by adolescents.¹³ First, greater message sensation value facilitated the processing (ie the elaboration) of antimarijuana messages by both high and low sensation seekers. Second, personal involvement with marijuana (either through their own use or the use by their friends or family) inhibited the processing of these ads primarily for high sensation seekers. In particular, high sensation seekers reported a much stronger negative reaction to the consequences of marijuana use presented in the in the ads.

Additionally, emotional responses to the antimarijuana ads varied considerably between the 2 viewing types.¹⁵ For high sensation seekers, perceived message sensation value directly elicited an emotional response labeled as sympathetic distress. Sympathetic distress directly and indirectly influenced antimarijuana attitudes. For low sensation seekers, however, sympathetic distress was inconsequential in influencing antimarijuana attitudes. Rather, mes-

sage sensation value directly elicited argument-based processing, which subsequently influenced antimarijuana attitudes. Moreover, message sensation value elicited anxious excitement (presumably as a negative reaction to the overly arousing stimuli), which in turn inhibited argument-based processing. A full description of the contrasting styles of processing is enlightening to processing theorists, but the findings are also important to producers of antimarijuana ads who can benefit from understanding what elements of an ad elicit negative responses and likely decrease the advertisement's persuasiveness.

Young adults and antiheroin ads.

Anti-heroin ads were investigated in a separate study because they differ substantively from antimarijuana ads in their formal features (ie, pace, vividness) and their content (ie, the consequences being more severe with heroin use than marijuana use).¹⁴ It was expected that the processes through which high and low sensation seekers viewed and were ultimately persuaded by antiheroin messages were likely different from those associated with antimarijuana messages. The path models were complex and cannot be described in detail here. However, consistent with the previous marijuana ad study, the results showed that high and low sensation seekers processed antiheroin ads differently.

For high sensation seekers, antiheroin attitudes were influenced directly by narrative processing (attention to the storyline) and sensory processing (attention to the visual and sound effects). For low sensation seekers, only one variable – sympathetic distress – directly influenced their antimarijuana attitudes. Hence, for high sensation seekers, emotional reactions were inconsequential in affecting attitudes. Yet, for low sensation seekers, the emotional reaction was the only factor influencing their attitudes. These are the most pronounced differences emerging from this study.¹⁴

These 2 separate processing studies enhanced our theoretical understanding and knowledge about what works in the prevention of illicit substance use. Prior to these studies, we knew very little about the theoretical variables involved in persuading high sensation seekers not to use drugs. We also had little knowledge about why high sensation value mes-

sages were persuasive. These findings provide both theoretical and practical insight into how future messages can be produced in order to maximize their effectiveness.

CONCLUSION

These studies collectively show the utility of the theory-based drug-prevention approach called SENTAR. Although there are other risk factors influencing drug use, sensation seeking is unique in that we can create media ads that appeal to sensation seekers' needs for arousal and stimulation. Clearly high sensation seekers are influenced differently by high sensation value ads than are low sensation seekers. As a result, we can take advantage of this knowledge and generate prevention ads that are more likely to be successful with this target audience.

Acknowledgment

This research was partially supported by grants DA-06892 from the National Institute on Drug Abuse. ■

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