
Chapter 3

The Uses and Effects of Public Service Advertising

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Public service advertising (PSA) has become a significant component of American mass media systems. The intent here is to examine the uses made of public service advertising, and its impact and effectiveness both alone and in concert with broader kinds of public information campaigns.

We begin with an overview of the advertisements themselves, their role in campaigns and in society, and audience responses to them. A review of earlier PSA-based campaigns follows. Several conclusions are then offered concerning factors that may increase their dissemination and impact, drawing from more contemporary campaigns as examples.

PUBLIC SERVICE ADVERTISING

Public service advertisements or announcements are promotional materials that address problems assumed to be of general concern to citizens at large. PSAs typically attempt to increase public awareness of such problems and their possible solutions, and in many instances also try to influence public beliefs, attitudes, and behaviors concerning them. Most PSAs emanate from not-for-profit or governmental organizations and receive *gratis* placement in broadcast and print media.

The Content of PSAs

PSAs reflect the individual concerns of their sponsors. Content analyses of televised PSAs during the 1970s indicated that nearly half of them dealt with health or personal safety topics, including alcohol and drug abuse, preventive health care, traffic safety, nutrition, and the like (Hanneman, McEwen, & Coyne, 1973; Paletz, Pearson, & Willis, 1977). Other topics included environmental concerns, community services, educational and occupational opportunities, consumer issues, volunteer recruitment, and general humanitarian concerns. The vast majority of the ads offered informative and in some cases persuasive messages, with a smaller number being fundraising appeals. Governmental agencies were responsible for about one quarter of all PSAs.

A more recent study of television public service directors indicates that their main choices of PSA content areas included alcohol and drug abuse, drunk driving, missing children, child abuse, and such health concerns as cancer and diabetes (Needham Porter Novelli, 1985). (These findings in part likely reflect a national campaign underway during that time by the National Association of Broadcasters aimed at public education on substance abuse, particularly as related to driving habits. Studies by the National Association of Broadcasters (NAB) have indicated that nearly 100% of television and radio stations carried alcohol-related PSAs during 1984–1985; NAB, 1984, 1985.)

PSA Placement

Those PSAs warranting free media placement are ordinarily relegated to status behind regular paid ads or commercials and are often apt to appear only as space or time become available. Televised PSAs, for example, have traditionally run during lesser watched dayparts (although in doing so, some may well reach their appropriate target audiences, e.g., children or teenagers). Hanneman et al. (1973) found that in the early 1970s nearly two-thirds of all televised PSAs ran between 7 a.m. and 6 p.m. on weekdays.

However, there are recent indications of a more favorable time distribution being allocated to at least certain kinds of PSAs. During 1985, for example, the ABC network carried over 1,000 PSAs related to alcohol and drug abuse, with 47% of those being shown during prime time (32% were shown during daytime, and 21% late at night) (ABC, 1986a).

Competition among PSA sponsors for media placement is heavy, and many of the ads fail to be effectively disseminated. The dissemination of any particular PSA is at the discretion of the network, station, or publication management, and content as well as stylistic and production factors can influence decisions on whether to present it and if so, when and where (cf. McGowan, 1980). Goodman's (1981) survey of over 700 television stations indicated that the most desired PSAs were those addressing local market concerns, and those disseminated by the most repu-

table sponsoring agencies (i.e., those without hidden commercial agendas). At the time, 30-second spots were the most preferred, and attractive production and packaging helped their getting aired. More PSAs were used from post-Christmas to early spring, and during the summer.

Most of the television public affairs directors surveyed by Needham Porter Novelli (1985) concurred that the local impact or relevance of the spot was a decisive factor, followed respectively by subject matter and technical quality. A local identification tag with the PSA was deemed a strong asset. Contact by a local organization promoting the PSA was likewise seen as a plus, as was having it in either 1- or 2-inch videotape format as opposed to 16-mm film.

Although comparable data on PSA placement on radio and in newspapers and magazines are unavailable, there is little reason to suspect sizable difference in their content, distribution, or sponsorship.

Societal Functions of PSAs

It also may be that given their pervasiveness, PSAs serve important functions for the social system. Paletz et al. (1977) suggested that the social and political import of televised PSAs goes beyond their explicit contents.

The values they contain, the images they collectively propound of authority and American institutions, their portrayals of the nature and causes of societal problems, and the solutions they designate for those problems . . . public service advertising should be considered as one way in which the American public is imbued with the values and attitudes that contribute to the current functioning and stability of the American political system. (p. 74)

A content analysis of televised PSA themes by Paletz et al. revealed that most of them included depictions of cooperation among citizens as an overriding theme. Moreover, cooperation, including increased individual awareness and concern as well as collective action, was often shown as a basis for solving many societal problems.

Paletz et al. found little if any PSA content indicating social conflict as either a cause of or possible solution to the ills described. Controversy was generally avoided, as was mention of citizen participation through political channels as means of problem attack. The authors noted that the content also gave a consistently positive view of governmental agencies; health, charitable and religious organizations; and traditional American institutions overall. The authors also pointed to possible dangers in that PSAs could serve propagandistic functions that could simply reinforce status quo social and political relationships while at the same time giving the appearance of promoting action and change. In a partial test of some of these assertions, however, O'Keefe, Mendelsohn, and Liu (1980) found no rela-

tionship between audience attendance to PSAs and degree of trust in either government or other people.

Public Exposure and Reactions to PSAs

Mass media audiences appear fairly attentive to PSAs and have generally favorable reactions to them. A 1980 national probability sample survey of 1,500 U.S. adults by the authors found that 30% said they paid "a lot" of attention to televised PSAs, and another 44% claimed to pay at least "some" attention to them. Personal health and safety were the topic areas most attended to, followed closely by energy conservation (a high salient issue at the time), crime prevention, consumer protection, fire prevention, drug abuse, and traffic safety.

Of the respondents, 81% said they found PSAs at least "fairly helpful" in making people like themselves "aware of problems that may affect their well-being," and 30% called them "very helpful." Moreover, 68% saw PSAs as at least fairly helpful in helping people solve problems they may have, with 20% calling them very helpful. Forty percent were able to describe a particular PSA they had recently seen. In terms of behavioral impact, 21% said they had previously written or phoned in to get more information about something they heard about in a PSA.

Generally, women, younger adults, and people with children were found somewhat more attentive to PSAs and more favorably disposed to them. More highly educated and upper income persons have somewhat more of a tendency to attend to them as well. More recent findings suggest a continuing pattern of younger and more educated audiences more likely to recall PSAs, although gender differences seem to have diminished (McLeod, Pan, & Rucinski, 1988). Importantly, the same research found recognition of consumer advertising higher among the less educated, as well as among the young and females. This implies an ability of PSAs to reach audiences atypical of those for other forms of advertising. Moreover, PSA recall was higher for those more attentive to certain public affairs contents, those more knowledgeable about current events, and for those engaged in more reflective, interpretive news information processing.

Audience evaluations of televised PSAs in a limited number of experimental laboratory situations have been found to be influenced to some extent by source, message, and receiver characteristics. Spots with Advertising Council source identification, for example, tended to elicit more positive evaluations than those identified as emanating from other noncommercial or commercial groups (Lynn, Wyatt, Gaines, Pearce, & Bergh, 1978). Furthermore, audiences appeared to base their evaluations of PSAs more on the type of appeal or persuasive argument used than on the issue or topic dealt with (Lynn, 1974). Evans (1978) found newspaper PSAs using evaluative appeals (opinion laden) to be more effective than those simply presenting facts in changing behavioral intentions. Although higher socioeconomic audiences tended to rate PSAs as a group more positively (Lynn et al., 1978), older and less-educated persons were likelier to be aware of the spon-

sorship sources of PSAs, suggesting closer attention to them by such individuals (Lynn, 1973).

PSAs and Public Service Campaigns: Some Caveats

Our specific concern with the impact of public service advertising presents a problem in that many if not most promotional programs use PSAs as only one segment of more extensive media campaigns incorporating news releases, other broadcast and print materials, direct mailing, and the like. In many instances more community and interpersonally oriented efforts are also carried out using volunteer organizations, local civic groups, speakers' bureaus, and so forth. Thus, although our focus is on PSAs, we typically need to consider them in the context of other campaign techniques. Unfortunately, most evaluations of information campaigns make little if any effort to distinguish among the effects of particular media or their contents.

The tradition of public information campaigns in American culture goes back to colonial times. Broadly speaking it can include such historical movements and appeals as those for unified national development, elimination of slavery, equal citizenship rights for minorities and women, and support for national policies in two world wars (Paisley, 1981). The mass media of each historical period played integral roles in the dissemination and impact of campaigns. The structure of media in each era and their relative import and credibility doubtlessly affected the influence of campaigns on the public.

Mass media have undergone radical changes over the past few decades and will continue to do so. Our review considers that an important caveat. There is ample evidence that the media—and especially television—are significant influences in our everyday personal, social, and political lives (cf. McQuail, 1987; NIMH, 1982; Roberts & Maccoby, 1985). There are indications that media were not as influential earlier in this century (cf. Lazarsfeld, Berelson, & Gaudet, 1948), and one can only speculate as to their impact on into the next. The efficacy of media as disseminators of information campaigns is tied to the immediate cultural context in which media operate, and the ways in which their audiences use, believe, and rely on them.

Another caveat is that our concern will be almost exclusively with campaigns that have been empirically evaluated with some degree of scientific validity. Such evaluations have the most promise in telling us not only whether a campaign was successful or not, but more importantly in teaching us what factors accelerated or inhibited its success. There are many examples of publicly and professionally acclaimed efforts, for example "Smokey the Bear" (cf. McNamara, Kurth, & Hansen, 1981), which most likely have had strong impact but because of a lack of clear audience evaluation may leave us wondering precisely why or how.

Unfortunately, the scientific validity of many of the evaluations considered here is of generally low order. There are relatively few instances of more experimentally

based controls being used. This is due in large part to their complexity and expense in naturalistic field research situations. Fortunately, however, their use is on the rise.

A related issue is that one of the difficulties in assessing even the most productive of the previous research is that the criteria for success are typically statistical tests of hypotheses, and little account is taken of the power of those tests in allowing generalizations concerning the "real world" impact of the messages. Although it is helpful to know that attitudes toward a topic changed "significantly" following exposure to a campaign, the unanswered question that too often remains is how many individuals were affected, and to what extent. Such data are important for credible estimates to be made of the cost effectiveness and efficiency of various campaign efforts.

There have been several studies of public information campaigns in other countries (cf. Hornik, in press). Although many of them are of theoretical interest, we do not deal with them here because of the often substantial differences in media systems and cultural perspectives.

PSAs AND CAMPAIGNS: EARLY RESEARCH PERSPECTIVES

As Rogers and Storey (1987) noted, research on communication campaigns has gone through eras emphasizing minimal effects (largely during the 1940s and 1950s), and more "moderate" campaign impact during the 1960s and 1970s. Here we review some key studies and perspectives pertinent to PSAs during each of those periods, with an eye toward the relevance of the findings to contemporary campaigns.

The Early Studies

Three perspectives on campaigns involving PSAs (or their equivalents) during the 1940s are worth reviewing for their relevance to many of today's research issues. One argues against wrongly inferring that audience effects during a campaign are necessarily a consequence of media interventions. Another demonstrates that even massive advertising input on a public issue can fail to move citizens. A third sets the stage for a "minimalist" view of media effects that dominated the field for some years to come.

Cartwright and Mass Persuasion. Many recent PSA-based campaigns draw at least implicitly from the work of Dorwin Cartwright, and in particular his 1949 analysis of World War II war bond drive campaigns. On the surface, the intensive campaigns with their multi-million dollar media advertising budgets appeared to

have had substantial impact in convincing close to a majority of wage earners to invest in the bonds.

Cartwright, however, questioned the efficiency of the campaigns in terms of the immense cost and effort expended. He presented some limited evidence that the media campaigns had been successful only in forming the public about the bonds and perhaps influencing their opinions, and not in the sense of directly affecting their motivations or behaviors. Moreover, he suggested that interpersonal contacts and persuasion were more effective in bringing about actual purchases of the bonds.

He called for more attention to the psychological processes of target audience members in promotional campaigns, particularly in terms of developing methods of influencing in turn their cognitive, motivational, and behavioral structures to provide congruency among them. He viewed multiple sources of influence, and not media alone, as being necessary to effectively bring about behavioral change.

The Cincinnati UN Drive. The campaign likely most often quoted as an example of the failure of multi-media programs was carried out in post-WWII Cincinnati and aimed to inform the citizenry of the advantages of the United Nations (Star & Hughes, 1950). The campaign appears to have inundated local radio stations and newspapers with spot ads as well as specially prepared programming and articles.

The campaign's impact was evaluated by use of fairly well-designed pre- and post-campaign measures of samples of citizens' levels of information and interest regarding the UN, as well as some of their attitudes concerning it. The before and after changes were largely minimal, leading to a general conclusion that the campaign was ineffective. Star and Hughes hypothesized that selective exposure was a factor, with the messages primarily reaching those already more interested in the UN.

However, although Star and Hughes did not give detailed descriptions of the messages used, there is some indication they may have been highly repetitive as well as somewhat sterile. Quantity may have been emphasized over quality. In a later review of the project, Atkin (1981) suggested that "less stress was given to designing appeals relevant to the needs and interests of the ordinary citizen. The campaign did not emphasize how the United Nations related to the personal lives of people living in Cincinnati, who saw little reason to learn the material" (p. 268).

Some Reasons Why Information Campaigns Fail. Although not strictly a media campaign evaluation, Hyman and Sheatsley's (1947) review of anecdotal evidence and their own experiences in public opinion and persuasion was influential in casting considerable doubt on the power of mass media in information campaigns. They proposed a series of psychological barriers confronting information dissemination efforts.

These included:

1. The existence of "a hard core of chronic 'know-nothings'" in the populace, whose general lack of knowledge made them extremely resistant to new information;
2. That "interested people acquire the most information," reducing the chances of reaching the disinterested;
3. That "people seek information congenial to prior attitudes," or the selective exposure hypothesis that indicates that people are most exposed to persuasive messages with which they already agree;
4. That "people interpret the same information differently," or selectively perceive what they want out of particular messages; and
5. That "information does not necessarily change attitudes," suggesting that more than "facts" provided by media are necessary to effect persuasion.

Although the validity of some of these factors has been put to serious question in more recent years, it is important to consider them here because they helped reinforce a generally pessimistic attitude about campaign effectiveness during the 1950s and into the 1960s. Indeed, the power of the media in general was thought to be rather minimal, as detailed in Klapper's (1960) study, *The Effects of Mass Communication*. From today's perspective, it remains an open question as to whether: (a) mass media were less influential during that era; and/or (b) ineffective campaign strategies were being used; and/or (c) the research questions being asked and the methodologies being used were inadequate to identify greater effects.

The Resurgent Period

Such pessimism also appears to have translated into a dearth of productive research on the effects of media information campaigns through the 1960s. However, the 1970s opened up several new avenues of inquiry, some supportive of campaign influences and others less so. More importantly, attention began to turn to the situations and conditions under which successes would be more likely to occur. As summarized by Mendelsohn (1973), more effective campaign strategies would do well to include formative research in campaign design, and increased cooperation between social scientists and communications practitioners. Greater attention to audience segmentation and the setting of "middle-range" campaign objectives (akin to Merton's, 1957, recommendation for social research) could also be productive, rather than aiming for significant behavioral changes across a wide range of audiences.

More sophisticated uses of evaluative designs were also coming into play. One

campaign on mental health combining many of the elements just mentioned into a moderately "successful" effort was also exceptionally well documented by use of an experimental-control community methodology that set the stage for more ambitious research (Douglas, Westley, & Chaffee, 1970). Although PSAs were a relatively small segment of it, it is worth considering from an overall design perspective, and for the challenges it presented to earlier thinking on campaign effects.

The project aimed to promote more accurate information about and more positive attitudes toward mental retardation. The 6-month campaign in an experimental treatment rural community of 4,300 was extensive. It featured over 20 news and feature stories in the local newspaper, numerous radio news items, community meetings, special speakers before local organizations, and related community events. Advertising was limited to a newspaper display ad, posters, and announcements of events related to the campaign over radio. Respondents in limited panel samples were interviewed before and after the campaign in the experimental community and in a comparable control community.

Post-campaign knowledge of mental retardation facts was greater in the experimental community than in the control, as was attitude change. Moreover, information gain correlated with attitude change, conflicting with Hyman and Sheatsley's final proposition previously discussed. And, the group likeliest to be perhaps inappropriately described as "chronic know-nothings"—those with the least education—scored the highest information gains. Selective exposure did not appear to be a factor. Although interpersonal sources of information were cited as the most used, media source mentions were substantial.

Although the Douglas et al. study challenges some of the previous hypotheses on psychological barriers to campaign effects, it should also be noted that the effort appears to have been highly intensive, run over a rather long period, and conducted in a rather small and likely high-cohesion community.

Another formally evaluated and effective campaign—also dealing with mental health—deserving note was a 1-year television and radio PSA campaign in an urban area that appeared to nearly double awareness of a community mental health agency, with television appearing to have by far the most impact (Schanie & Sundel, 1978). More positive attitudes toward mental health issues also were found, as well as increased service utilization. The messages included specific examples of situations in which individuals came to realize their behaviors may have been inappropriate. Evaluation included telephone interviews with independent samples of 500 respondents prior to the campaign and at three points during it, with no control group being used. The topic of mental health may be one that reasonable people are unlikely to disagree over once credible information is fed into the system.

Also, moderate success in increasing public awareness of and strengthening attitudes toward safe use of pesticides was found in a small city media campaign featuring television, radio, and newspaper PSAs as well as direct mailings (Sal-

cedo, Read, Evans, & Kong, 1974). Before and after measures were compared with those in a control city, and significant change differences were found despite reports of relatively low direct exposure to the campaign materials.

The Special Case of Counteradvertising. One of the more interesting as well as controversial uses of PSAs involved the mandated broadcast cigarette counteradvertising campaign of the late 1960s, in which broadcast media were required to air a certain number of anti-smoking commercials in proportion to the numbers of cigarette advertisements shown.

O'Keefe (1971) found some rather slight attitude and belief changes occurring in response to the counteradvertisements. However, his methodology relied on self-reports of survey respondents, not necessarily the most valid measure for such a complex issue. Warner (1977) presented somewhat more formidable, albeit correlational, evidence that a noteworthy drop in a cigarette consumption patterns occurs as predicted at the time of the 1968-1970 campaign. Unfortunately, the study leaves us with little understanding of the processes of mechanisms by which influence may have occurred.

Flay (1986), however, suggested some reasonable possibilities as to why that campaign, unlike more typical PSA-based ones, should have greater impact: (a) The spots were novel, and quite varied; (b) Dissemination was widespread as well as frequent, with one PSA aired for every three to five cigarette ads; (c) The campaign spanned 3 years, providing endurance that should help minimize selective exposure and increase retention. (Flay also pointed to successes of smoking cessation media campaigns in such countries as Norway and Austria, and notes media influences in more elaborate programs aimed at promoting specific cessation activities, e.g., "stopping for a day" and joining cessation clinics.)

PERSPECTIVES FROM CONTEMPORARY PSA CAMPAIGN RESEARCH

A variety of innovative PSA efforts has been carried out on a number of fronts in more recent years, in many cases grounded in the work just described. Despite the diverse and sometimes scattershot approaches used in some of them—as well as in some of the accompanying evaluations—generalizations of value for subsequent programs can be gained. Here several conclusions—or recommendations—for more effective PSA-based campaigns are offered, supported by examples drawn from some of the more rigorously studied projects.

1. *The more recent successful PSA campaigns have incorporated theoretical models of communication or persuasion in their development.* Centering a campaign around a theoretical approach not only allows a broad base of knowledge to be

brought to bear on the problem, but it also provides a guiding model or structure that can help the sometimes complex and disorganized components of contemporary campaigns.

A prototypical example of this approach is the Stanford Heart Disease Prevention Program (Farquhar et al., 1985; Flora, Roser, Chaffee, & Farquhar, 1988), which includes perhaps the most extensive and methodologically rigorous self-evaluation to date. In brief, the objective of the campaign is to reduce heart disease probability among certain normally high-risk target audiences by informing them via mass media and personal interventions of the precise nature of the risks and attempting to reduce their potentially harmful behaviors. The campaign is based extensively upon Bandura's (1977) model of social learning theory that holds that new actions are learned largely by the imitation or modeling of specific acts of others, and are solidified through selective interpersonal support and reinforcement. The approach further avers that new behaviors acquired from mediated sources are unlikely to be performed unless the environment is one in which they can be reinforced. Another approach incorporated into the campaign was Cartwright's (1949) suggestion that although media campaigns can inform and may alter attitudes, interpersonal communication and persuasion make behavioral change more likely to occur.

The most recently reported campaign and evaluation designs involved five California cities over a 6-year period. Broadcast PSAs were a major source of information dissemination, as were direct mailings of newsletters and other information, newspapers columns, and lectures and training sessions. Messages were available in both English and Spanish. The evaluation provided quite convincing evidence that the media campaign alone produced positive changes in the knowledge of risk-preventive methods as well as in desired behaviors. (Changes mainly occurred in dietary habits; less impressive were changes in smoking activity.) The media campaign combined with intensive interpersonal instruction proved significantly more effective than media used alone. There was no evidence of knowledge-gap increases. The panel-based evaluative design apparently had some effects of its own, however, at least in terms of the repeated measures increasing knowledge among respondents (Chaffee, Roser, & Flora, *in press*).

Another major benefit of integrating conceptual models into campaign design is that modification of the hypotheses or theory can happen as a consequence of the findings. Somewhat similar large-scale community-based campaigns in Minnesota have provided evidence of the impact of media messages on the cognitive complexity of belief structures of individuals on heart health topics (Pavlik, 1987). PSAs and targeted newspaper columns were also found effective in reducing a knowledge gap between the more and the less educated (Ettema, Brown, & Luepker, 1983). Moreover, the level of audience involvement in an issue has been identified as an important contingency affecting campaign influence (Chaffee & Roser, 1986; Salmon, 1986). In extended analyses of the Stanford program data, Roser,

Flora, Chaffee, and Farquhar (1988) found motivation to learn about health, as well as information-processing ability, to be significant predictors of learning from the heart health campaign.

More theoretically based campaign evaluations also allow for more efficient generalization to future topic areas. For example, PSAs directed at AIDS-related issues may well benefit from the social learning context-based findings of the Stanford project (Flora & Thoreson, 1988), and from strategic recommendations identifying AIDS-related audience groupings based on Grunig's situational theory of publics (Grunig & Childers, 1988).

2. *The more influential campaigns have made extensive use of basic commercial advertising planning principles in their design and execution.* These include such rudimentary design components as concept testing, focus group analysis, pretesting of materials, and tracking of the dissemination of campaign materials. These approaches have been employed in recent Advertising Council national media campaigns, including the rather extensively evaluated "Take a Bite Out of Crime" project (O'Keefe, 1985; O'Keefe & Reid, in press). Initiated in 1980 under the sponsorship of the National Crime Coalition, the campaign promotes getting citizens more involved in helping to prevent crime by carrying out such actions as securing their homes, keeping watch on their neighbors' homes, reporting suspicious incidents to police, and a range of other activities.

"Take a Bite Out of Crime" has gone through several stages, in each case building more community support through programs at the local level. Pretesting has been an integral part of all stages. The media components, resting on PSAs via broadcast and print media as well as posters, billboards, and public transit cards, provide a common focus for those efforts. Evaluations of the media campaign were carried out from 1980 to 1982, when public awareness of the allied community efforts was still low (less than 10%) and thus allowing an unusually uncontaminated examination of the influences of PSAs per se.

A national survey of public exposure and reactions to the campaign was carried out, in addition to a three-city panel survey in which the same respondents were interviewed just prior to the program's inception and again 2 years later. The national survey revealed that 52% of adults had been exposed to the PSAs, predominantly via television. Reactions were highly positive, and nearly 25% of the respondents indicated they had taken crime preventive actions as a consequence of having seen or heard the spots. Self-reports of information gain and attitude change were considerably higher. Analysis of pre- to post-measures in the panel indicated significant increases among those exposed over those not exposed in prevention knowledge, positive attitudes, expressions of personal competence in helping prevent crime, and behavioral change. These findings held even when controlling for exposure to news about crime, other prevention campaigns, and actual victimization.

PSA exposure and influences seemed quite evenly distributed over all population segments, and there were no indications that the campaign widened any

"knowledge gap" between persons already more prevention competent and those less so, nor was there evidence that the spots had significantly increased public fear of crime (an outcome the messages were designed to avoid). Interestingly, the effects found did not always suggest a "linear" pattern leading from awareness to attitude change to behavioral change. Rather, the PSAs appeared to have greater attitudinal effects on some persons while not necessarily increasing their information, whereas for other individuals it stimulated behavioral changes without concurrent attitudinal ones. Variations in audience involvement may have been a key factor here, as in the Stanford campaign previously described.

Formative research appears to be an especially critical element. Roberts, Bachen, Christenson, and Gibson (1979) particularly credit the pretesting of PSAs directed at children as essential to their success. Flay (1983) regarded formative research on target audiences as an essential component if drug abuse campaigns are to be successful. A national formative research study to improve crime prevention campaigns directed at elderly persons has indicated not only diverse orientations toward crime among that age group, but an unsuspectedly high reliance on PSAs for information in general (O'Keefe & Reid-Nash, 1987). Atkin, Garramone, and Anderson (1986) have suggested extensive formative research procedures for anti-drinking and driving campaign planning. In perhaps a model formative research design, Bauman et al. (1988) carefully delineated objectives and message and channel factors in designing a largely radio-based PSA campaign aimed at limiting smoking initiation among young adolescents.

Inherent in all of these efforts is a realization that each kind of audience is going to have special characteristics and needs, and that those have to be taken into account in campaign design. Campaign effectiveness appears in large part closely tied to: (a) How narrowly individual target audiences can be defined; (b) How much information about each of those audiences can be gathered prior to the campaign; and (c) How well that information can be utilized in the design of the campaign.

3. An allied issue is that *PSAs are likely to be more successful if their design takes into account not only existing awareness, attitudes, and behaviors of the target audience with respect to the topic, but their media preferences and tastes as well.* Previous research on source, message, and channel factors provides a substantial resource for campaign planners intent upon matching messages to particular audiences (cf. Bogart, 1986; Percy & Rossiter, 1980). Such elements as source credibility, fear appeals, use of humor, and channel-information capacities might well be taken more into account in designing PSA messages, which because of their brevity need to be as efficiently tooled as possible (cf. Atkin, 1981; Solomon, 1981). The uses made of particular media by specific target audiences should also be delineated by formative research, with emphasis on the extent to which given individuals may depend on certain media or seek need gratifications from them (cf. Rosengren, Wenner, & Palmgren, 1985).

Campaigns dealing with such potentially change-resistant topics as alcohol and

drug abuse may particularly benefit from such inputs. Several content analyses of anti-drug abuse messages in the early 1970s suggested that they relied heavily on use of fear appeals, as well as exhortations of social disapproval, and that when factual information was presented it could be construed as being exaggerated (Capalaces & Starr, 1973; Hanneman, 1973). There was little message targeting to specific audiences as well. In contrast, at least limited success was reported in a panel study of a PSA campaign aimed at older, more affluent males perceived as influential community gatekeepers (Schmeling & Wotring, 1980).

As Hochheimer (1981) suggested, a lack not only of evaluative but also of formative research concerning alcohol and drug abuse campaigns make productive inferences about campaign design and effects extremely difficult, and in some cases hazardous. Pre-campaign research more recently has been developed pertaining to adolescents and drug abuse (Black, 1987), but post-evaluation of anti-drug PSA effects appears to remain highly correlational and only quite loosely tied to PSA exposure (Black, 1988).

A perhaps even more important target audience is young children, and since the mid-1970s several organizations including broadcast companies have produced televised PSAs aimed at providing instruction on such topics as smoking and drug abuse, proper nutrition, and other health and safety issues.

Evaluations of these have largely been limited to controlled experimental laboratory situations. The findings, however, have generally been encouraging in revealing that previously researched and well-designed spots appear capable of achieving information gain in children as young as age 4, and that older children learn even more from them (Roberts et al., 1979). Televised PSAs were also found capable of increasing awareness of the intent of televised commercial advertising (Christenson, 1982), although younger children may not fully understand the intent of PSAs themselves (Blosser & Roberts, 1985). The degree to which child-oriented PSAs are successful in naturalistic situations is likely to depend on the competing stimuli, as well as on the frequency and appropriateness of placement of the spots. Televised PSAs were found to compete successfully with supermarket displays and school programs aimed at promoting more nutritious "snacking" behavior on the part of children (Smith, Nelson, & O'Hara, 1982).

4. As an extension of the previous points, *successful campaigns are also more likely to have a clearly delineated set of operationalized campaign goals*. Planners need to specify at a minimum what kind of impact goals are being set, including the possible options of awareness, information gain, attitude change, motivation, and behavior change. Criteria should be established at the outset to allow subsequent judgment of the "success" or "failure" of a PSA campaign.

As Kotler (1982) suggested in his "social marketing" approach to public service campaign programs, such a systems-oriented approach forces immediate concern during the planning stage with specific end products or goals to be achieved. The approach increases the probability of a more appealing and attractive "product" in

the form of campaign themes and messages particularly tailored to the target audience.

Perhaps most important is the development of clear—but flexible—objectives for each component and stage of the campaign, and the translation of those objectives into message components. Care should be taken to assure that the goals are realistic. No one campaign is going to eliminate heart disease or child abuse, but messages can emphasize quite specific short-term steps that individuals can take to help alleviate the situation. Also, as Pasick and Wallack (1988) noted, the objectives need to be flexible enough to accommodate changes suggested by formative research and the ongoing pragmatics of the situation. Getting locked into a rigid set of requirements in a typically fluid communication process can be as damaging as having no plan at all.

It is indeed possible to include a great number of highly specific subgoals, each of which can be attended to some extent in the design of a campaign. McGuire (1981), for example, has suggested a progressive list including: exposure; attention; liking or interest; comprehension; skill acquisition; attitude change; memory storage; information search and retrieval; deciding on basis of information retrieval; behaving in accord with decision; reinforcement of desired acts; and post-behavioral consolidating. McGuire also provided a checklist linking these to source, message, channel, receiver, and destination characteristics of a campaign.

On a more applied level, an evaluation paradigm designed for the "Take a Bite Out of Crime" campaign might have applicability to other campaign studies. The campaign was presumed to aim at building greater crime prevention *competence* among citizens in terms of: (a) increasing their awareness and knowledge of preventive techniques; (b) generating more positive attitudes about the effectiveness of citizen-based prevention; (c) building a sense of capability in ability to help prevent crime; (d) motivating them to act; and (e) encouraging them to engage in preventive actions (O'Keefe, 1985). It seems likely that many other campaigns are essentially directed at such competence building, whether in health, safety, or other pursuits, and the same dimensions previously noted may be applicable to them.

Adoption of such paradigms also can help resolve the related problem of the lack of comparability of evaluation evidence across campaigns. There has been little standardization of conceptualizations or of research designs, making it quite difficult to offer generalizations from the results of one campaign to another.

It is equally important to consider what PSAs themselves can and cannot do as part of a campaign mix. As Rogers and Storey (1987) noted, mass media seem to be most effective in creating awareness and/or knowledge, stimulating interpersonal discussion, and in recruiting people to participate in campaign activities. Although the McGruff and Stanford media campaigns did appear to influence behavior per se, we have no way of knowing whether they accomplished that "on their own," or more indirectly as a consequence of stimulating discussion among audience members. In their synthesis of interviews with information campaign practitioners and scholars, Pasick and Wallack (1988) also identified the ability of

media alone to demonstrate simple skills (e.g., testing a baby's hearing), to disseminate new technologies or recommendations, and to influence one-time behaviors (e.g., installing a smoke detector). PSAs also may be effective at encouraging active information seeking on the part of audience members, such as phoning a number for more information on a topic. Using PSAs to encourage the help of others as change facilitators is also growing in use (e.g., "Friends Don't Let Friends Drive Drunk").

5. *The greater the dissemination of PSAs by broadcast and print media, the more effective they are likely to be.* This seems inherently obvious, but the implications are varied and need to be carefully considered. The vast majority of citizens are most exposed to PSAs via television, so we emphasize that medium in this discussion. Nonetheless, the same concerns hold for radio and the print media.

The first implication has to do with reach of the message. Given that most PSAs likely are televised during daytime or late evening, there is simply less of a chance of their reaching many target audiences. The spots can also be highly inefficient in being shown several times over to inappropriate audiences before a logical target group is exposed to them. On the other hand, the recent emphases by the broadcast industry on topics such as substance abuse indicates that a commitment can be made to more effective dissemination in terms of reach.

Another implication has to do with the frequency of repetition. Chances are even less of target groups being exposed to the messages for any reasonable duration, which lessens their potential for impact. A related concern is time span of repetition. Most of the campaign successes just noted used PSAs over periods of several months or years, typically varying specific spots to maintain freshness and novelty. This is quite difficult to do without a fair amount of control over the long-term scheduling of the ads, but is possible with adequate cooperation from the disseminating media.

These problems can be overcome, but often not easily. Some factors that offer partial solutions are included here. Early televised drug abuse PSAs, for example, tended to be shown more during daytime hours and late at night (Hanneman, 1973). More recently, Feild, Deitrick, Hersey, Probst, and Theologus (1983) found that only 20% of the television PSAs constituting NIAAA's 1982 alcohol abuse campaign were shown between 5 p.m. and 11:30 p.m., with an almost minuscule percentage broadcast during actual prime time.

However, the recent increased concern among broadcasters with anti-alcohol and drug abuse promotional efforts noted earlier in this report provides greater optimism at least with respect to dissemination. For example, the ABC television network reported nearly half of its substance abuse spots being aired in prime time during 1985 (ABC, 1986a). This appeared to be a continuing trend in recent years among many broadcast organizations, and ratings-based estimates of audience reach show upward trends (ABC, 1986b).

6. *PSAs that are of high professional quality, as well as having some entertainment value, are more likely to: (a) be placed in media; and (b) have an impact on audiences.*

This may also seem an all-to-obvious point—until one views some of the arguably poor quality PSAs produced over the years, albeit under the best of intentions. Given the competition among PSA producers, attractive packages are likelier to be aired or published (Goodman, 1981; McGowan, 1980; Needham Porter Novelli, 1985). The McGruff and other Advertising Council campaigns receive numerous plaudits for their quality, and are consistently highly disseminated as well. However, more work needs to be done assessing what is meant by quality here. There has been scant if any research—either quantitative or qualitative—on the styles and content formats that may most attract audience attention.

7. *PSAs are generally more effective when tied to more extensive campaigns.* Media campaigns that augment PSAs with such activities as press coverage and pamphlet distribution appear to have a greater chance of success. The probability increases even more when interpersonal and community support systems are engaged, assuming adequate orchestration among the various components.

The interchange or supplementation of media with other sources (Flay & Sobel, 1983) optimally leads to mutual reinforcement of campaign goals through several channels. Benefits can include the presentation of a “unified” front to target audiences, as in Douglas et al. and in the Stanford program.

Using a multi-media mix to stimulate interpersonal interaction may have added impact as well. A multi-year federally sponsored campaign against drinking and driving included both targeted PSA materials as well as publications specifically tailored for law enforcement professionals and physicians (Swinehart, 1981). A major theme centered on interpersonal influence, attempting to persuade citizens to intervene in not letting other individuals drive under the influence. Annual surveys of public knowledge, attitudes, and behavior indicated a steady increase in such intervention behavior. An open question is the extent to which news coverage per se, as well as other campaigns may have been in part responsible for encouraging such behavior. Grunig and Ipes (1983) similarly recommend that interpersonal support can be an effective tool for activating audiences of drunk driving campaigns.

Evidence against perhaps trying to accomplish too much across too wide an audience with PSAs alone was also documented during the 1970s, particularly in the case of traffic safety. For example, several national and local programs were carried out to encourage citizens to “buckle up” with safety belts, with apparently minimal results (NHTSA, 1979; Swinehart, 1981). (One such campaign imaginatively used a dual-cable system to set up an experimental and control-group design in which PSAs advocating seat belt use were disseminated over one cable only. The impact of the PSAs was evaluated by observing seat belt use by motorists, recording their license numbers, and using those to determine home addresses and whether they were in the experimental or control cable group. However, no effects were found; Robertson, 1976; Robertson et al., 1974.)

8. *PSAs are more apt to be placed in local media when the spots are directly tied to local issues and concerns.* The research indicates a preference for locally oriented spots by media public affairs directors (Goodman, 1981; Needham Porter Novelli,

1985), as well as more willingness to use them when they are advocated by persons in the community. National spots are more favored when they include local tags or references, as was noted in the McGruff campaign (O'Keefe, 1986).

Feild et al. reported that PSAs in an NIAAA alcohol abuse campaign were shown on local stations with a total reach of 74 million households, with \$3.8 million in broadcast time donated by the stations. Feild et al. credit the relatively high station usage of the PSAs in part to local campaign sponsors who made special efforts to approach station public affairs directors about airing the spots.

9. *PSAs have more impact when they ride on a wave of ongoing public opinion or concern.* While the McGruff PSAs had impact prior to the development of adequate supplemental support systems, they also had the advantage of being disseminated during the highly "crime conscious" early 1980s. They were therefore supplemented by extensive news media coverage about crime in general, as well as a number of more localized prevention campaign efforts. Part of the campaign's impact may have resulted from its "fitting in" with the social environment of the times, and perhaps in its own way accelerating public awareness that citizens could responsibly contribute to crime reduction. The influence of the PSAs might well have been less had they appeared in a vacuum with little or no media or public concern. The current national concern with substance abuse may well work in concert with the rise in PSAs on that topic to increase their influence.

However, the separating out of the effects of PSAs, or an entire campaign for that matter, can be difficult. For example, the National Committee for Prevention of Child Abuse, in cooperation with the Advertising Council, has run spots for several years in all major media (Cohn, 1985). While tracking of public awareness of child abuse in a series of national polls by Louis Harris has indicated steady increases, there is no way to relate such change directly to the campaign, especially given news media attention to the issue.

10. *PSAs are more effective when they provide information about topics people already generally agree on.* Most of the campaigns discussed have dealt with issues already having a high degree of public consensus (e.g., mental health, drug abuse, drinking and driving, crime, etc.). Part of their success likely involved building off of that consensus and providing additional information or argumentation to develop or intensify specific kinds of attitudes or behaviors.

PSAs attempting to generate social change on more controversial issues (e.g., abortion, welfare reform, farm policy) may meet with less success. For example, an investigation of a 6-month four-city PSA information campaign on contraceptive use indicated minimal impact (Udry, 1974; Udry, Clark, Chase, & Levy, 1972). (Udry et al. delineated several problems with both the campaign per se and evaluation procedures. The campaign spots were quite nonspecific, and likely necessarily so to increase their possibility of being aired. Several difficulties also surfaced in adequately controlling for campaign effects per se.) In an extensive review of campaigns related to sexual behavior, Brown, Waszak, and Childers (in

press) noted that such efforts meet with informal and often formal resistance, and may often work to disproportionately affect less powerful segments of society. The current debate over the content and explicitness of AIDS-related PSAs exemplifies the difficulties involved in producing effective material while refraining from offending social, political and religious arbiters of morality as well as taste.

PSAs are also apt to be less successful at getting people to stop performing either habitual and/or enjoyable behaviors. This is particularly true when there is no immediate reward for curtailing such behaviors (Rogers & Storey, 1987). The folk wisdom that the "only way to end bad habits is to begin good ones" appears to have some utility here.

There may also be risks in tampering with audiences already holding the dispositions being sought. Feingold and Knapp (1977) reported indications of a "boomerang" effect in an experimental setting using radio drug abuse PSAs: High school students' negative attitudes toward drug abuse decreased rather than increased. There may also be a tendency for older adolescents to counter-argue against such messages in televised PSAs (Ray & Ward, 1976). This possibility increases in importance given some evidence of adolescent reliance on media for general information about drugs and alcohol (Atkin, Hocking, & Block, 1984; Kline, Miller, & Morrison, 1976; Kline & Pavlik, 1981). The greater availability of such messages in recent years might well be expected to increase their potential for impact.

SUMMARY AND FUTURE DIRECTIONS

Public service advertising can be a significant factor in the dissemination of information and influence in contemporary society. The public-at-large is fairly attentive to PSAs, especially over television, and people have generally favorable reactions to them. Evaluations carried out during the 1940s and 1950s suggested that PSA-based public information campaigns—as well as mass media in general—had minimal effects on public beliefs, attitudes, and especially behaviors. By the early 1970s, however, some evidence began to indicate otherwise. More importantly, increasingly sophisticated research methods allowed closer examination of the situations and conditions under which successful campaigns would be more likely to occur.

Some recent campaign successes involving PSAs have been found in such areas as mental health, highway safety, smoking cessation, crime prevention, and heart disease risk prevention. There are also indications that children can learn information from certain types of PSAs.

Campaigns in general appear more likely to succeed if they incorporate theoretical models of communication or persuasion into their development. The more influential campaigns have also made extensive use of commercial advertising planning principles in their design and execution. Formative research, audience

segmentation, and pretesting appear as key ingredients. Clearly delineated campaign goals are also highly important.

The effectiveness of PSAs is highly dependent on the extent of their dissemination by broadcast and print media, and such activity has shown a recent increase in some topic areas. The technical quality of PSAs is a clear factor in their success, as is their local community appeal. PSAs also are generally more effective when tied to more extensive campaigns, and/or when they ride on a wave of ongoing public opinion or concern.

PSAs are also likely to be more effective when they provide information about topics most people already generally agree on, and if their design takes into account not only existing awareness, attitudes, and behaviors of the target audience with respect to the topic, but their communication preferences and behavior as well.

Some of the more productive paths future research might follow include studying the modes of information processing for various types of PSAs by individuals. It seems apparent that PSAs attract different audiences than other forms of advertising. Messages promoting cognitive, attitudinal, and behavioral changes on issues or ideas rather than products may well require differing attention and processing strategies. Moreover, although the dominant medium for PSAs is clearly television, their use in other media deserves more study, including radio in particular (cf. Bauman et al., 1988).

Also needing further investigation is the role of PSAs in larger scale campaigns, and the ways in which PSAs interact with other mediated messages, as well as interpersonal communication. Do PSAs have a unique role in such a mix? How can the typical 30-second televised spot most effectively convey information that will reinforce or complement the array of other dissemination sources? This line of inquiry likely needs to include more detailed scrutiny of audience dispositions toward PSAs, perhaps focusing on the kinds of functions they serve for various individuals and the kinds of gratifications or utilities they provide.

In a broader sense, we need to be more concerned with the policy implications of such advertising. Paletz et al. (1977) raised the issue of a propagandistic role for PSAs in American society, particularly in terms of kinds of issues the Advertising Council, as well as television networks and individual stations, choose to promote. Emphasis on dissemination of one type of message, be it drug abuse, smoking, or AIDS, reduces the likelihood of other messages on other topics reaching the public. The responsibilities of the gatekeepers here obviously cannot be taken too lightly. The development of successful public service advertising remains part art, part science, and very much a consequence of political policy and social debate.

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