Pilot Study of Health Professionals' Awareness and Opinions of the Hypertension Information in the Mass Media They Use

GRAHAM W. WARD, MPH
WILLIAM MORRISON, MS
GEORGE SCHREIBER, ScD

THE NATIONAL HEART, LUNG, AND BLOOD INSTITUTE (NHLBI), currently invests about $350,000 annually to produce and distribute mass media materials about hypertension control. These materials have been primarily aimed at communicating knowledge and skills about hypertension control to the general public and to persons aware that they have high blood pressure (HBP). The National High Blood Pressure Education Program (NHBPEP), begun in 1972, is a cooperative effort among governmental and private groups to reduce death and illness associated with hypertension through education of health professionals, hypertensive patients, and the public. This program is coordinated by the Institute.

During routine assessment of program strategies to increase cost-effectiveness, NHLBI staff noted that health professionals, as well as the general public and patients, are exposed to and may be influenced by mass media. Mass media clearly impact the actions of the general public, and mass media materials might be designed that would have improved impact upon the practices of health professionals.

A review of the literature disclosed no studies on the impact of general content of the mass media on health professionals. Consequently, NHLBI staff mounted a pilot study in a single community to assess mass media use and the recall and opinions among health professionals of hypertension content in these media. If their recall or opinions were low, the likelihood of mass media impact would be presumed slight. If recall or opinions were high, this would indicate probable impact on the professionals requiring further, refined assessment.

Methods

The study was conducted in two phases during January and April 1981 among health professionals in Richmond, Va. Two random samples of practicing physicians, nurses, and pharmacists were drawn from licensing body rosters, each sample

Mr. Ward is chief, and Mr. Morrison is coordinator for mass media, of the Health Education Branch, National Heart, Lung, and Blood Institute. Dr. Schreiber was, during the study, the Branch's coordinator for evaluation and for nutrition education. He is now assistant to the director of the Division of Resources, Centers, and Community Activities, National Cancer Institute.

Tearsheet requests to Graham W. Ward, MPH, Chief, Health Education Branch, NHLBI, Rm. 4A-24, Bldg. 31, National Institutes of Health, Bethesda, Md. 20205.

Table 1. Response rates by profession

Item	Physicians		Nurses		Pharmacists		
	Phase I	Phase II	Phase I	Phase II	Phase I	Phase II	Total, both phases
Final sample	116	117	62	69	59	69	479
Completed questionnaire	77	77	55	54	46	53	362
Response rate (percent)	66	66	89	78	78	82	76

ultimately consisting of approximately 75 physicians, 50 nurses, and 50 pharmacists in active practice. The samples were stratified by ZIP code to assure representative geographic distribution.

To assure that the media contained hypertension content which could subsequently be recalled, NHLBI staff, assisted by Virginia State High Blood Pressure Control Program staff, arranged placement of newspaper news items and letters to the editor, television public service announcements (PSAs), a one-half hour television special program, and PSA film trailers in movie houses. Because there were no local magazines with wide circulation, it was necessary to rely on the contents of national magazines.

The media placements and a first survey were conducted during January 1981. Following a normal media period (in terms of hypertension content), the second, nonduplicated survey was conducted during April. This interval served as a means of assessing decay of recall.

Prior to the survey, letters were sent from the appropriate local professional society explaining the purpose and sponsorship of the project. Trained interviewers made appointments by telephone, then called in person upon the sample members. Those who refused were sent a letter by NHLBI further explaining the study and requesting participation. The interview consisted of a 15–20 minute questionnaire addressing media use, unaided recall of HBP content, aided recall, and professional opinion regarding content accuracy. Sample development, field data collection, and initial data analysis were performed through a contract with a survey group, Damans and Associates of Rockville, Md. Field data were analyzed using a standard SPSS package. Aided recall data will be reported later in a separate paper.

Results

From a total sample of 479 practicing professionals drawn from licensing rosters, interviews were completed with 362, for a response rate of 75 percent. By profession, approximately two-thirds of the physicians and 80 percent of nurses and pharmacists in each panel responded (table 1). There was little difference between the responses in the Phase I and Phase II surveys; therefore, data from the two panels were pooled.

Media use. The range of general mass media used by health professionals was broad. Newspapers, magazines, radio, and television were used nearly universally; lay meetings and movie attendance was reported about half as often (table 2).

By profession, physicians reported the highest use of print media. Eighty-four percent read newspapers every day compared with 66 percent of pharmacists and 44 percent of nurses. Similarly, 46 percent of physicians compared with 28 percent of pharmacists and 22 percent of nurses read between 5 and 10 magazines each month.

Nurses and pharmacists reported more TV and radio use than physicians. About one-fourth of nurses and pharmacists reported 3 to 4 hours of daily TV watching; fewer than 10 percent of physicians watch this much. About double the proportion of nurses (16 percent) and pharmacists (13 percent) listened to 4 to 6 hours of radio daily as did physicians (6 percent).

More physicians (39 percent) attended community meetings each month than did nurses (29 percent) and pharmacists (26 per-

Table 2. Media use by health professionals

Media	Number	Percent
Newspapers	355	98
Magazines	346	96
Radio	330	91
Television	346	96
Lay meetings	203	56
Movies	231	64

Table 3. Percentage of professionals who recalled high blood pressure content in the media they used

Group	Television	Newspapers	Magazines	Radio	Movies
All professionals	82	54	49	37	7
Physicians	79	58	47	34	6
Nurses	97	48	56	37	9
Pharmacists	95	56	43	40	9

cent). The rate of movie attendance was low and sporadic among all professions; many respondents went so infrequently or irregularly that they could not cite a monthly attendance rate.

Media recall. Those professionals reporting use of a given medium were then asked if they recalled items about hypertension in that medium (table 3). Fifty-four percent of the 355 respondents reporting that they read newspapers had unaided recall of high blood pressure items. By profession, 58 percent of physicians, 56 percent of pharmacists, and 48 percent of nurses recalled some newspaper items. There was wide variation in the type of message recalled. News items, public service advertisements, and health columns were most often recalled in that descending order of frequency. Editorials and letters to the editor had extremely low levels of recall among all professionals.

Recall of content on HBP in general magazines was reported by 49 percent of all professionals (nurses, 56 percent; physicians, 47 percent; and pharmacists, 43 percent). As with newspapers, the type of magazine content that was recalled varied. Physicians (52 percent) and pharmacists (55 percent) mostly remembered news items, Nurses most recalled public service announcements (60 percent) and feature stories (50 percent).

Television had the highest recall rate of all media among all professionals; 82 percent overall recalled seeing any HBP content on TV. Of that group, more than 90 percent of all professions recalled PSAs. Twenty-two percent of physicians and 25 percent of nurses recalled news items. Appearances of health professionals were recalled by 37 percent of pharmacists.

Radio fared least well; HBP content recall in this medium was only 37 percent among all professionals who listened to radio. PSAs were most remembered (97 percent of those who recalled radio content). News items and talk show content were remembered by only 15 percent or fewer.

One medium—posters, signs, and billboards—although not examined for usage rates, had high recall. Of those mentioning such items (65 percent of all professionals), posters were recalled by 84 percent and signs and billboards each by 34 percent.

Table 4. Media users' accuracy rating of high blood pressure information (percentages)

Media	Very accurate	Somewhat accurate	Not accurate
Television	78	22	0
Radio	72	28	0
Magazines	64	36	0
Newspapers	55	43	2

Rating of media content accuracy. In this survey the finding most surprising to the investigators was the high rating of content accuracy attributed by all health professionals to all the media. Respondents were asked to categorize the hypertension information disseminated by each medium they used as very accurate, somewhat accurate, or not accurate (table 4). Television was rated very accurate as to content by 78 percent of professionals who watched it, radio by 72 percent, magazines by 64 percent, and newspapers by 55 percent. Newspapers were the only medium receving ratings of not accurate; 2 percent of newspaper-reading respondents gave this assessment.

Conclusions

Although the results of this single-community pilot test must be viewed as tentative, health professionals do not seem to differ greatly from the general public in their use of mass media. Their recall rates and quite high ratings of content accuracy suggest that mass media do serve as a conduit for health information, at least in a news sense, to this segment of the population. Health professionals differentially use the media (physicians leaning somewhat more toward print, nurses and pharmacists toward electronic media), thus suggesting that message targeting is possible. Education and communication practitioners should further examine use of general mass media in professional education efforts, especially for the purposes of increasing health professional awareness of new scientific information which they can further explore in the technical literature.