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# Evaluation of a Televised Stop-Smoking Clinic

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IN THE 10 YEARS since publication of the Surgeon General's landmark report on cigarette smoking, a large majority of smokers and nonsmokers alike have come to agree on the health dangers of smoking (1). With this knowledge, most smokers readily admit that they want to quit, and many have succeeded in stopping, on their own, with the support of their physician, or through organized smoking clinics. An even greater number of smokers, however, have not accomplished this feat. Community services for helping them are limited, and, according to a 1975 poll (2), only about one-third of smokers say they are willing to attend a clinic. Many millions of smokers would still like to stop, yet continue smoking, often with feelings of frustration and guilt.

Although the mass media have been used effectively to advise smokers of the need to stop, few messages have been devised to show smokers how they might go about it. A series of clinics on how to stop smoking, conducted by Dr. Donald T. Fredrickson, then director of smoking clinics for the New York City Department of Health, was televised in New York City in 1968. The series has been widely distributed since then. Unfortunately, neither the audience nor the effects of these programs have ever

been evaluated. Nonetheless, we know that mass media programs can give concrete suggestions, advice, and guidance in a supportive, structured context to large numbers of would-be ex-smokers. In 1975, the American Health Foundation worked with WNEW-TV in New York City to design and present such a program.

## Method and Materials

The stop-smoking program was designed to fit into WNEW-TV's 10–11 pm news broadcast. Drawing on experience from the American Health Foundation's stop-smoking clinic and from other experts, we devised a day-by-day quitting plan and then modified this plan into a series of twenty 30- to 90-second segments to be delivered by the station's science editor, Ken Gilmore. The first 5 messages summarized the smoker's self-testing kit designed by the National Clearinghouse for Smoking and Health (2), and the remaining 15 provided a step-by-step approach to stopping smoking, using ideas borrowed from several published sources (4–6). One message was broadcast each weekday night for 4 weeks in August 1975. (Copies of the quitting plan from which the messages were derived can be obtained from the author.)

The research strategy devised to test the effectiveness of the TV stop-smoking clinic was based on "registration" by mail of smokers who wished to participate in the study. On the first five nights of the clinic, announcements were made asking smokers to send in postcards with their names, telephone numbers, and number of cigarettes they smoked a day.

Of 4,794 cards and letters received, approximately one-third came from New York City, and the rest were from the suburbs and out of State. About 50

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percent of the respondents supplied their telephone numbers. The registration yielded a population of 634 smokers in New York City who gave their telephone numbers. These smokers were targeted for followup by telephone on the last two evenings of the 4-week clinic. Of the 634 registrants, 310 were reached, and these constituted the sample for the study. During the telephone conversation, information was obtained about the participant's smoking status and demographic and smoking-related variables. A second followup was conducted 1 month later to see what, if any, sustained effects the television clinic had.

## Results

Demographic and smoking characteristics of the sample are shown in the table. The majority of the respondents were women. Both the men and women, on the average, were in their late forties and had been smoking for more than 30 years. These findings reflect the specific demographics of the WNEW-TV audience, 70 percent of which is 50 years old or over. Average cigarette consumption was more than 30 cigarettes a day, much higher than the national average of about 21 a day (1).

The women started smoking about 2 years later than the men, which is consistent with known sex differences among smokers (1). Men and women also differed as to type of employment and educational level. Most of the men were employed in professional or skilled occupations, whereas most of the

women were in clerical and semiskilled jobs or were housewives. More than twice as many men as women had finished college.

Although no data were obtained on the number of previous attempts to quit, we found that 49 percent of the sample had never been off cigarettes for as long as 24 hours. The average time off in the past for the entire sample was less than a week. Only 5 percent reported being off for a year or more. In general, the respondents were typical of the hard-core smokers who attend smoking clinics.

The study sample had watched an average of 11 of the stop-smoking messages. At the end of the series, when the first telephone contact was made, the smoking status of the group was as follows:

Sex	Average number of cigarettes per day	Number not smoking	Percent not smoking
Men (N=92) .....	17.5	14	15.2
Women (N=218) .....	19.5	15	6.8
Total (N=310) .....	18.9	29	9.3

To count as "not smoking," the respondent had to state that he or she had not smoked at all during the 24 hours before the telephone call. Almost 10 percent of the sample were thus counted as not smoking at the end of the 4-week clinic. Men, 15 percent of whom said they had quit, were more successful than women, with less than 7 percent who had stopped ( $\chi^2=4.36$ ,  $P<0.05$ ). Among those still smoking, an overall reduction in the smoking rate was demonstrated by a drop from an average of about 30 cigarettes per day at the start of the clinic to an average of about 19 per day at the end.

Of the 310 smokers contacted on the first follow-up, 292 were reached a month later for the second followup. The average smoking rate at the time was about 21 cigarettes per day, still considerably lower than the initial smoking level. The percentage who were not smoking, by the same definition as used previously, was still about 9 percent (28 persons). These findings suggest that the effects of the clinic were being sustained.

The data were further analyzed to determine whether any of the characteristics studied might have differentiated the smokers who quit from those who did not. None of the following factors successfully differentiated the two groups: (a) longest time off cigarettes in the past, (b) age when starting to smoke, (c) present age, (d) educational level, (e) number of years smoking, or (f) baseline smoking level. Only one factor differentiated significantly those who quit from those who did not, and that

Demographic and smoking characteristics of television smoking clinic sample

Characteristic	Men (N = 92)	Women (N = 218)
Age (years) .....	47.2	48.7
Baseline smoking rate (cigarettes per day) .....	30.9	30.1
Number years smoking .....	30.8	30.0
Age when starting to smoke (years) <sup>1</sup> .....	16.5	18.6
Education (percent):		
Less than high school graduate .....	14	11
High school graduate .....	21	40
Some college .....	28	33
College graduate or more .....	37	16
Occupation (percent):		
Professional and skilled .....	72	23
Clerical and semiskilled .....	16	35
Unemployed or students .....	4	3
Retired .....	8	9
Housewife .....	..	30

<sup>1</sup>  $\chi^2 = 8.33$ ;  $P < 0.01$

was the number of programs the respondents had watched. Of the half of the participants who reported seeing 11 or fewer programs, only 9 quit; of the half who had seen 12 or more, 20 quit ( $\chi^2=3.94$ ,  $P<0.05$ ).

Separate chi-square analyses for men and women revealed that the previous analysis for the whole group had masked an important sex-by-age interaction on the likelihood of quitting. Age had not significantly discriminated those who quit from those who did not for the group as a whole, but it emerged in the separate analysis as a significant factor for women and not for men. Of the half of the women in the study group who were 50 years or younger, 12 quit, whereas in the half over 50 years, only 3 quit ( $\chi^2=4.58$ ,  $P<0.05$ ).

## Discussion

The results of the study indicate that smokers can significantly reduce their daily consumption of cigarettes, and that some of them can quit smoking (at least for 24 hours), with the help of short, daily guidance messages presented on television. Clear-cut sex differences emerged in the level of participation and in the success rate. The number of women participating outnumbered men by more than 2 to 1, but success at quitting was significantly more prevalent among men. This latter finding is consistent with other data which suggest that women generally have a harder time stopping than males without the direct social support of a clinic program (7).

In this sample, women over 50 years old had significantly less success than younger women, an age factor not found among men. This finding suggests that the lower quit rate among women may be largely attributable to the greater difficulty experienced by the long-time, older female smoker.

The most salient factor that seemed to affect the likelihood of quitting was the number of broadcasts the smoker had watched. Since it is possible, however, that this factor was a measure of the initial motivation of the smoker, we cannot say for certain that the observed increase in success rate was directly attributable to the messages themselves.

Judging by previous research (8), we expected a greater degree of recidivism than was observed at the 1-month followup. However, the apparent lack of recidivism is partly artifactual. Of the 28 persons who said they were not smoking at the time of the second followup, 18 were from the initial group who had quit. An additional 10 quitters came from the ranks of those who had been smoking at the first followup. Of these, 7 came from among those that

had either reduced their smoking by at least 50 percent or had been off for at least 24 hours sometime during the 4-week clinic but had not been off the 24 hours before the first followup. The remaining three new quitters had made no change at the time of the first followup. Furthermore, about half of the original 29 quitters were given maintenance support during the month between the first and second followups. This support, which consisted of prerecorded daily "reinforcement" messages obtained by telephone, was shown to be a significant factor in preventing recidivism (9). Without such support, we estimate that only about half of the original group of quitters would have still been off cigarettes at the second followup, that is 14 or 15. The estimate of 15 combined with the 10 new quitters gives a more conservative rate of quitting to be applied to the population who did not receive any further support—25 of 292 respondents, or 8.6 percent.

Applying this quit rate of 8.6 percent to the population of smokers who sent in cards at the start of the clinic (4,794), we estimate that about 400 smokers were helped to stop smoking for at least a month following the broadcasts. We were also able to get some indication of the success of the clinic among the "silent" audience of smokers who did not send in cards by requesting on the last night of the clinic that everyone who had been able to stay off cigarettes for the previous 24 hours to send in a card. We received 250 such cards, all from persons other than the 29 quitters in the study sample. This result suggests that the number of smokers helped to stop smoking by the television clinic was substantially greater than the 400 estimated from the sample. We cannot estimate the effects on the remaining "silent" audience. We can speculate, however, that less-habituated smokers might have felt less of a need to send in cards, even though they still may have watched the programs and actually may have been more successful in quitting than the hard-core smokers.

The success of the television clinic must also be measured against the recidivism that occurs at a later date. Previous studies suggest that only about one-fourth of quitters are still off cigarettes a year later (8). However, those results are based on intensive programs in which the high initial success rates may be inflated by the temporary social support supplied by the treatment setting. In contrast, the relatively minimal social support afforded by a television clinic may produce more solid successes leading to significantly lower recidivism. A 1-year followup is planned to clarify this issue.

## Conclusion

The results of this study suggest that there may be a significant role for the mass media in helping people stop smoking. There is much to be learned, however, about making these interventions more effective. For example, a television clinic presented by WSM-TV in Nashville, Tenn., had a success rate of 15 percent. This clinic was similar to the one reported here, but the format had been revised to show two smokers going through the steps of the daily plan. A smoking clinic on WCBS radio in New York City produced even better results, presumably due to a heavy 1-month promotional buildup before the start of the clinic and to the repetition of the messages several times a day. A report of this clinic is in preparation.

At this stage of development, the costs of research and evaluation limit the cost effectiveness of such mass media stop-smoking efforts. However, both television and radio are showing an increased interest in presenting health care information on their local news shows. Some stations have already broadcast their own version of a smoking clinic, although, as far as we know, none of these has been evaluated. When the clinics are designed so that they can be integrated into existing formats, the media view them not only as public service information but also as program material. Besides providing free air time, stations may sometimes actually pay for the use of specific material. In this light, it would seem advantageous to package a stop-smoking clinic for distribution to local broadcast stations throughout the country. If the program package is available to

the stations free, it would be even more likely to get wide exposure.

Because of their mass audience, radio and television can reach large numbers of smokers who ordinarily would not avail themselves of clinic services. If we can help some of these smokers stop smoking on their own, with minimal support and guidance, we can better distribute more intensive clinic services to those with greater need.

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## SYNOPSIS

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A stop-smoking clinic was designed to fit into the format of a local television news program in New York City. A step-by-step quitting plan consisting of twenty 30- to 90-second segments was broadcast each weekday evening for 4 weeks in August 1975. Almost 4,800 smokers "registered" for the clinic by postcard, and a sample of 310 was followed up at

the end of the clinic and 1 month later.

The majority of the respondents were women. The average age was 47 for men and 49 for women. They had been smoking for more than 30 years, and when they registered for the clinic, they were averaging more than 30 cigarettes a day. Almost half had never been off cigarettes for as long as 24 hours. In general, the respondents were similar to the hard-core smokers that usually attend smoking clinics.

Almost 10 percent reported that they had stopped smoking by the end

of the broadcasts. The rate of quitting among men was twice that among women. A major factor differentiating those who quit from those who did not was the number of programs they had seen. The lower rate of quitting among women was due mostly to the women smokers over age 50 in the sample.

The study indicated that use of the mass media may be an effective way to reach the large number of smokers who would not attend organized clinics but who may be able to stop smoking on their own with minimal support and guidance.