A Minimal-Contact Smoking Cessation Program in a Health Care Setting

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Dr. Strecher was a predoctoral student at the University of Michigan School of Public Health when he submitted this paper, which won first prize in the competition for the 1983 Secretary's Award for Innovations in Health Promotion and Disease Prevention, sponsored by the Department of Health and Human Services.

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SYNOPSIS ....

A minimal-contact smoking cessation program, designed for use in a health care setting, is described. Smokers receiving medical care as inpatients or outpatients at the Ann Arbor (Mich.) Veterans Administration Hospital receive a brief consultation about their smoking from a health practitioner. (For inpatients, the consultation occurs near the time of the patient's discharge from the hospital.) Toward the end of the consultation, if the patient decides to try to quit smoking, he or she is given a self-help smoking cessation kit in a 3-week-diary format. With the practitioner, the smoker fills out the first series of exercises in the kit, including a smoking awareness test, and signs a stop-smoking contract, which is cosigned by the practitioner. The patient takes the kit home, where the remainder of the kit's instructions and exercises are to be followed. Compliance is encouraged by weekly telephone calls from the health practitioner to check on the patient's progress and by offering the patient a State lottery ticket for each week of the diary completed.

Although the materials for this program were created for veterans using the Veterans Administration medical care system, the program can be adapted to a variety of health settings and can employ different types of health care practitioners—physicians, nurses, physician's assistants, and allied health care providers.

CIGARETTE SMOKING REPRESENTS the single major preventable cause of illness and premature death in the United States. It has been estimated that more than 300,000 premature deaths annually—roughly one-seventh of all deaths in this country—are due to smoking (*1*). The smoker can reverse many of the deleterious long-term effects of smoking by quitting (*2*).

These facts are not new to most Americans. Most smokers understand the general dangers of smoking cigarettes and the seriousness of the illnesses that accrue from smoking (*3*). This knowledge, however, does not appear to be a strong enough deterrent to smoking. Threatening messages about the health hazards of cigarette smoking often are effective in scaring smokers but not in getting them to quit the habit (*4*). Adolescents often are faced with more powerful social pressures to take up smoking than to abstain from it. Adult smokers may be faced with the problem of breaking an ingrained, habitual pattern—often a physical addiction—that began with a decision to smoke based on social pressures that no longer exist. To deal with these problems, a wide variety of strategies, aimed at different groups of smokers, have been developed.

Smoking Cessation Strategies

Strategies to achieve smoking cessation include behavioral techniques, such as operant conditioning and sensitization or desensitization procedures, and quit-smoking contracts (*5*). Other cessation treatments include psychotherapy, group therapy, hypnosis, and self-control techniques. Some treatments, particularly behavioral therapies, appear to have higher rates of initial smoking cessation; however, sharp declines after a few months usually bring these rates down to the level of "quit rates" of other treatments (*5*).

One finding, becoming more consistent as results of new research are reported, is the greater long-term effectiveness of multidimensional interventions over single-dimension treatments (*5,6*). Multidimensional treatments may be effective in offering techniques best suited to the individual smoker in his or her unique situation. The smoker can choose the

techniques that work most effectively. Multidimensional treatments can also offer a mixture of behavioral and cognitive interventions. Behavioral therapies may be more effective in breaking the habit of smoking through increased awareness and eventual control of cues triggering the urge to smoke. Cognitive therapies offer the smoker a reason to quit smoking, analyze the decisionmaking process with the smoker, break cognitive defenses, and support reasons for quitting.

Given the existing state of knowledge about smoking cessation rates and methods for getting smokers to quit, what types of interventions hold the most promise? Intensive, high-contact individual and group interventions such as one-on-one counseling or formal smoking cessation clinics often use multidimensional strategies. High-contact interventions are generally carried out by trained therapists who give a great deal of time and effort to the individual smoker; however, these interventions often require a great deal of the smoker's time and expense. Also, formal smoking cessation programs may not be within convenient geographic distance for some clients or may be able to accommodate only limited numbers of smokers.

In contrast to high-contact smoking cessation interventions, minimal-contact interventions use brief consultation with a therapist; comprehensive self-help booklets or manuals; less comprehensive written information, such as pamphlets or brochures; or a combination of these techniques. Like high-contact interventions, minimal-contact treatments may use multidimensional approaches effectively. Minimal-contact programs may also reach a larger number of people than high-contact programs because of their appeal to smokers who do not wish to engage in a formal program. A large majority of smokers who wish to quit reportedly would not attend formal smoking clinics if these were offered (*7*).

The effectiveness of minimal-contact smoking cessation programs, in comparison with that of high-contact programs, has not yet been determined. Evaluators of minimal-contact program results must carefully examine the specific components of each program. Programs using minimal consultation by physicians have shown low but consistent smoking cessation rates. In a study examining 2,138 patients of 28 physicians who employed a combination of medical advice and brief written messages, Russell (*8*) found a "quit rate" 5 percent above the baseline quit rate for the general population. A number of smaller studies in which physicians' messages were used to get patients to quit smoking have supported these results (*9,10*). A review of studies using minimal physician messages (*11*) found cessation rates to be higher among groups of patients suffering from a smoking-related illness.

Comprehensive self-help smoking cessation booklets may employ a combination of cognitive and behavioral therapies. Information in self-help booklets may effectively convey the hazards of smoking. Behavior modification techniques offer smokers a means of breaking their smoking habits and maintaining nonsmoking status. The use of self-help booklets alone, however, has achieved relatively low quit rates. A number of trials of self-help booklets have found little or no effect on smoking cessation (*12*), but evaluation of more recently published self-help smoking cessation manuals is more encouraging. Self-help books developed by the American Cancer Society (*13*), by Danaher and Lichtenstein (*14*) and by Pomerleau and Pomerleau (*15*) have all achieved positive results under minimal-contact conditions (*16*).

More carefully controlled evaluations of self-help manuals are still required. More needs to be learned about why some smokers fail to quit through self-help booklet interventions. For example, do smokers who do not benefit from the intervention prematurely quit using the booklets, or do they follow the advice in the book carefully but still find it impossible to quit smoking?

On the face of it, higher smoking cessation rates appear to have been obtained by high-contact interventions than by minimal-contact ones; however, different denominators used in the evaluation of these interventions have led to misleading results. Smokers engaging in high-contact intervention programs are often extremely well motivated to quit smoking, as evidenced by their willingness to devote a large amount of time and money to a formal program effort. Results of evaluations of high-contact programs contain a denominator of highly selected smokers—those who, indeed, are ready to quit. Minimal-contact interventions, on the other hand, often use samples of smokers who may or may not wish to quit smoking and who may or may not be ready to quit at the time of the intervention. The results of the previously mentioned study in which physicians' advice and simple written messages were used as interventions led Russell (*8*) to estimate that if all physicians in the United Kingdom were to achieve a 5-percent-over-baseline quit rate for their patients, the number of new ex-smokers could not be matched even by a two-hundredfold increase in special withdrawal clinics.

Minimal-contact interventions seem to hold great promise of getting a large number of smokers to quit with a relatively small expenditure of money and effort. The combination of a brief consultation by a therapist or health practitioner and use of a self-help manual may provide an optimal minimal-contact intervention. Recent evidence suggests that social-learning-oriented self-help books are far more effective in getting smokers to quit when used with therapist intervention than when used alone (*16*).

No study to date has compared the effects of the combination of minimal-contact therapy and self-help kit with those of high-contact interventions. It seems a promising approach, however, to use brief therapeutic encounters to initiate the decision to quit, supported by a relatively simple and unobtrusive means to quit smoking. A medical care setting presents an ideal situation for this type of minimal-contact intervention. The following section of this paper proposes such a program, designed for inpatients and outpatients at the Ann Arbor (Mich.) Veterans Administration Hospital. [This paper was written in late 1982; the proposed program became a reality in January 1983.—Ed.]

The Program

The purpose of the program is to get smokers using hospital services as inpatients or outpatients to quit smoking. A recent survey of veterans using the Veterans Administration hospital system found that the rate of smoking in this group was roughly twice as high as that in the general population (*17*). More than 50 percent of those veterans who smoked, however, reportedly would cooperate in a hospital-based smoking cessation program, although this estimate may not accurately reflect the actual behaviors of these veterans.

Three components are basic to the proposed program: consultation from a health practitioner, a self-help smoking cessation kit in a 3-week-diary format, and incentive to comply with the self-help kit. While in the health care setting, as either an outpatient or an inpatient, the smoker is to receive a consultation about his or her smoking from a health practitioner. (For inpatients, this consultation occurs near the time of the patient's discharge from the hospital.) If the patient decides to quit smoking, the self-help kit is introduced; the first series of exercises in the kit is filled out with the patient; and the patient signs a stop-smoking contract, which is cosigned by the practitioner. The patient takes the kit home, where the rest of the exercises are to be followed and the diary is to be completed. Compliance is reinforced by a combination of weekly telephone calls from the practitioner and the offering of a State lottery ticket for each week of the diary the patient completes.

Practitioner consultation. In this program, the practitioner is the gatekeeper, determining who would benefit from quitting smoking and who is willing to quit. The practitioner provides the crucial first step, or "cue to action," in initiating commitment to a decision to quit smoking. The consultation session, ranging between 5 and 15 minutes, is designed to clarify and strengthen the smoker's decision to quit. The stop-smoking contract makes this commitment "public."

The practitioners in this program will be health educators who have been trained, or are receiving postgraduate training, at the University of Michigan's School of Public Health and a registered nurse working at the Ann Arbor VA Hospital. Practitioners will learn the consultation procedures and skills from a training manual and a tutorial. The tutorial, given by experienced professionals, explains the procedures and skills required for the consultation and gives each practitioner role-playing opportunities. Each practitioner is also given a training manual to serve as a reminder and reinforcer. The practitioners are the most important elements of the stop-smoking program, and it is crucial that they feel comfortable and effective in carrying out consultations.

The consultation scheme developed for this program reflects a synthesis of theoretical models of decision making (*18,19*) and practical consultation techniques and strategies from behavioral counseling literature (*20*). The consultation is designed to facilitate the patient's decision making. The patient is not "preached at"; rather, he or she is selectively reinforced in self-arrived-at decisions. The counselor serves to clarify the complexity of opposing forces governing the smoking decision.

The consultation process developed for this program uses four basic steps in motivating the patient to decide to quit smoking. The first step explores, in a nonthreatening manner, factors influencing the patient's smoking behavior. Reasons governing the decision to take up smoking and reasons governing present smoking are discussed. The purpose of this exercise is to make the patient sensitive to the decision-making process. The counselor then stresses how the present decision to smoke may be based on a past decision that is no longer relevant to the patient's present circumstances. Through this discussion, the counselor expands on the present reasons for smok-

ing, determining whether the patient has thought about quitting as an alternative and, if so, when quitting would take place and under what conditions.

The second step involves exploring, from the perspective of the patient, the consequences of various smoking decisions. What events might occur if the patient chooses a particular alternative? How would a decision to quit smoking affect the patient's lifestyle? At this time, faulty or unrealistic expectations are dealt with by the counselor, who will have written information on hand to give the patient a clearer perspective on the outcomes of alternative decisions.

The third step involves searching for new information in further consideration of the choice to quit smoking. This step is accomplished by filling out with the patient the first exercises of the diary-format self-help kit. The counselor offers the patient unconditional positive reinforcement for performance of the first series of activities in the kit. Individual strengths are acknowledged. Weaknesses are expressed as challenges. Participation in the program is then urged by the counselor. The patient should be made to feel that the program is appropriate and effective for him.

The fourth and final step involves reviewing the process of the consultation: the alternatives, the advantages and disadvantages of those alternatives, the new decision made, and the immediate and long-term consequences of that decision. The patient is assured by the counselor of future support in the program through weekly phone calls to the patient at home.

The consultation should proceed quickly and not bog down on unresolvable issues. The counselor is to provide consistent positive regard for the patient; that is, negative judgments should not be placed on personal disclosures by the patient. The counselor should act in a positive, encouraging, and supportive manner. The decision to quit smoking should be presented by the counselor as a positive and feasible one.

Diary self-help kit. Health practitioners often spend time advising their patients to quit smoking; however, the practitioner is often limited in the number of effective strategies for quitting that he or she can offer the patient. Few smokers are willing to engage in a formal, high-contact smoking cessation program, but simple written information alone is often not enough to motivate patients to quit. The diary-format self-help kit developed for this program is intended to give smokers the means to quit. Such a kit, used as a supplement to the consultation with the health practitioner, provides a stronger intervention than simple written messages such as brochures, but maintains the minimal-contact nature of the intervention by avoiding large expenditures of time, manpower, or money.

Intrinsic to self-help programs is the enhancement of personal resources in order to change an undesirable or unwanted behavior. The self-help kit used in this program, which is designed for persons of low to middle-level socioeconomic status, is rooted in learning theory described by Bandura (*21*). Bandura stresses that people not only have a set of expectations that a particular outcome will accrue from a particular behavior but also have a set of expectations relating to whether they will be able to engage in that behavior in the first place. These expectations are termed "efficacy expectations" by Bandura.

Most smokers believe that smoking cigarettes is deleterious to their health. Smokers feel susceptible to the hazards of smoking and feel that these hazards are indeed serious and would drastically change their lifestyles. But when one asks VA hospital patients "Why don't you quit smoking, if you know it is so bad for you?" one most often gets the response "I can't quit" or "I'm hooked." These responses suggest a lack of perceived efficacy in quitting smoking rather than a faulty set of health beliefs.

How does one enhance self-efficacy? The most important modifier of self-efficacy, Bandura states, is successful completion of new performance tasks. Success not only enhances confidence in the ability to complete even more challenging tasks but also provides awareness of successful coping skills. These coping skills can then be used as "footholds" for tackling greater challenges. On the other hand, consistent failure to complete performance tasks reduces expectations for future success. In efforts to improve self-efficacy, therefore, one must be careful not to assign tasks at which persons may be likely to fail.

The self-help kit developed for the Ann Arbor program provides an underlying progression of coping skills development. Over the 3-week period of the diary, each task assigned is progressively more difficult than the one before it. Initial confidence is gained through completion of relatively simple tasks. Coping skills are learned and used to tackle more difficult tasks. The encouragement of self-rewards for successful completion of tasks is also built into the kit.

The first major task the kit assigns to smokers is becoming more aware of the cues influencing the

pattern of their smoking habit. These cues may include drinking coffee, eating, tension, boredom, or any number of other triggers that cause the smoker to light a cigarette.

The second major task assigned by the kit is developing alternative activities to cope with individual cues to smoke. The smoker begins to use substitutes for smoking when the cue arises, and effective substitutes are recorded in the diary. The smoker also attempts to avoid any cue that can be avoided.

The third major diary task involves application of these skills to quitting smoking altogether. Total smoking cessation is to occur between day 8 and day 10 of the 3-week diary. The smoker, it is hoped, is ready to quit by this time and possesses the necessary coping skills. The substitutes used in place of cigarettes will help the smoker resist his or her habitual cravings for cigarettes.

The final major diary task requires of the new ex-smoker a permanent reorganization of his or her responses to cues or triggers that influence cravings for cigarettes. New habits must be substituted for old ones. Situations that present a strong temptation to smoke, such as being around other people who are smoking, are dealt with by giving the ex-smoker specific responses to use in declining offers of cigarettes. Ex-smokers are also advised to avoid, at least initially, many situations where the temptation to smoke is great.

Self-rewards for successful completion of each major performance task are recommended in the kit. Smokers are encouraged to pat themselves on the back, take themselves out to dinner, spend the money saved from not buying cigarettes on a gift for themselves, and use other such self-rewards as positive reinforcements.

Each performance task involves a series of small tasks to be carried out each day. It is clear from smoking cessation research that there is no single technique that uniformly gets smokers to quit. Each minor task may be more or less appealing to different smokers, but gradual accumulation of successfully performed tasks is expected to build stronger feelings of self-efficacy, thereby increasing the smoker's personal expectations of quitting smoking and remaining a nonsmoker. By completing the smoking cessation tasks themselves, in their own environment as opposed to a formal clinic setting, it may be easier for smokers to come to a self-determined, long-term decision to quit.

Incentive for compliance. As has been described, the self-help kit contains daily instructions for performance of tasks that gradually increase feelings of self-efficacy and control over the cigarette habit. These instructions must be followed every day if the kit is to work; however, self-help programs frequently have high-dropout or low-followthrough rates (*11*). To address this problem, a reward system has been built into the program.

At the end of each of the 3 weeks covered by the kit, a page is included in the diary that asks the participant to tear out the preceding 7 page-days of the diary and mail them back to the VA hospital in a stamped, pre-addressed envelope. In exchange for sending back the pages, the participant receives a State lottery ticket. (During informal interviews, smokers at Ann Arbor VA Hospital had been asked how a lottery ticket would compare as a reward with other, more expensive rewards. For this group of patients, lottery tickets appeared to have the greatest appeal, perhaps because they held out the possibility of great financial return without requiring any investment.) Patients receive one lottery ticket for each week of diary pages turned in; however, the tickets are not mailed to participants until the end of the 3-week program. (If the tickets were mailed each week, patients whose first or second lottery tickets did not win might get discouraged and drop out of the program.)

In addition to the lottery-ticket inducement, every participant in the program receives a phone call from the health practitioner at the end of each week of the program. Participants are asked how they are progressing and are given encouragement. They are also asked whether the week's diary pages have been sent back to the hospital. If the participant has not returned the diary pages, reasons for not doing so are elicited by the practitioner and encouragement to continue with the program is given.

Applicability to Other Health Settings

The smoking cessation program at the Ann Arbor Veterans Administration Hospital will be carried out for 1 year. Evaluation of short- and long-term smoking cessation rates among VA patients will determine whether the program is to continue unchanged, be modified to increase quit rates, or be dropped.

A minimal-contact program of this sort can be used in nearly any setting where health care practitioners are treating patients who smoke. Medical clinics, such as those on university campuses, on military bases, or at worksites, could make use of this type of program for their patients. The program can be adapted to outpatients of physicians in pri-

vate practice as well as to inpatients in large hospitals.

The health practitioners who administer such a program could be physicians, registered nurses, physician's assistants, health educators, psychologists, social workers, or other allied health care providers. It is likely that different professions will have varying levels of credibility and influence. Although this question has not been examined conclusively in previous smoking cessation evaluations, one can assume that any group of health practitioners has the potential to influence the behavior of patients who smoke.

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A Proposed Campaign to Increase the Use of Restraint Systems for Young Children Who Ride in Cars

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For this proposal, the authors won second prize in the competition—sponsored by the Department of Health and Human Services—for the 1983 Secretary's Award for Innovations in Health Promotion and Disease Prevention. At the time their proposal was written, Ms. Shaw and Ms. Fluke were senior students at the University of Oklahoma College of Nursing.

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SYNOPSIS

In the United States, motor vehicle accidents are the number one killer of children under 5 years of age, according to the National Highway Traffic Safety Administration (NHTSA). Repeated studies show that correct, consistent use of child restraint systems is a proven method of preventing many unnecessary