Expressed Willingness of Smokers To Try 10 Smoking Withdrawal Methods

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A VARIETY of smoking withdrawal techniques have been tried in the United States and elsewhere. The ones most widely used to date are distribution of information (lectures and films), medication, nicotine substitutes, and scare communications. Group therapy, individual counseling, hypnosis, and behavior conditioning have also been employed, but to a lesser extent because they are relatively expensive and can be administered only by trained personnel after intensive planning. In smoking withdrawal clinics, persons may undergo a variety of procedures, including medication, interviews, counseling, and so forth.

Interagency councils have been formed at State and local levels to plan antismoking campaigns on a larger scale (*1*). In San Diego and Syracuse mass smoking control programs involving the entire community are now underway (*2*). Innumerable physicians and dentists have urged their patients to stop smoking but have often been at a loss to tell them how, and countless books, patented gimmicks, sleep records, and the like on how to stop smoking have been marketed.

Many of these programs fail because smokers are unwilling to participate in them. For example, a group of researchers in Philadelphia announced through all three daily newspapers and seven radio stations that a smoking clinic would be available to the public (*3*). Out of a metropolitan population of 4 million persons, only 135 responded, 111 attended a meeting, and 37 decided to participate. Of these, 24 finished the sessions offered. Other researchers have encountered similar results, although the Roswell Park Clinic, Buffalo, N.Y., has attracted 1,472 smokers over a period of 3 years (*4*). Furthermore, for our Smoking Control Research Project, sponsored jointly by the Institute of Social and Personal Relations, Berkeley, and the Permanente Medical Group-Kaiser Foundation Health Plan, Walnut Creek, Calif., we sought to recruit about 300 smokers and had to turn away 200 surplus volunteers (*5*, *6*).

The difficulty of attracting smokers into programs such as these raises the question of which methods should be offered to those who wish to attempt giving up cigarettes. The answer should

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be based at least in part on the methods smokers say they are willing to try. As part of the Institute-Permanente smoking study, an attempt was made to determine which methods smokers would find acceptable as aids to cessation.

Method

A survey questionnaire was mailed to about 8,000 men aged 25—44 years, members of the Kaiser Foundation health plan in Walnut Creek. A random sample of one of every seven men received a long, detailed version of the questionnaire. Eighty percent of the subjects who received the questionnaire responded, of whom 386 (45 percent) were smokers. About one-fourth of the respondents were ex-smokers.

The 28 persons who were occasional or very light smokers (one to five cigarettes per day) were not included in the analysis, leaving 358 regular smokers (at least 10 cigarettes daily). In general, respondents were white, married, employed men, many with small children. Persons from all socioeconomic levels were included, although minority groups and families in the lowest economic stratum were underrepresented.

Smokers were asked, "Would you be willing to participate, at no cost to you, in any of the following ways to help you cut down or stop smoking cigarettes?" Respondents were given the choice of yes, maybe, or no answers to 10 procedures ranging from watching television programs at home and reading a book on how to quit smoking to group meetings and public health smoking clinics. Acceptance of a method was defined in terms of the subject's stated or expressed willingness to participate, not his actual behavior.

Subjects' Willingness to Accept Methods

None of the smoking withdrawal methods on the list elicited a positive response from more than 45 percent of the smokers; with the yes and maybe responses combined, however, four methods received this much support (table 1, chart).

Forty-five percent of the respondents stated they were willing to accept instructions on how to quit on their own, and another 24 percent said they might be willing. Closely following this method in popularity were medication, which elicited 41 percent yes and 25 percent maybe responses, and television programs, with 36 percent answering yes and 28 percent, maybe. Only one-fifth of the smokers gave even tentative support (maybe responses) to public health clinics, lectures, individual counseling, and group discussion.

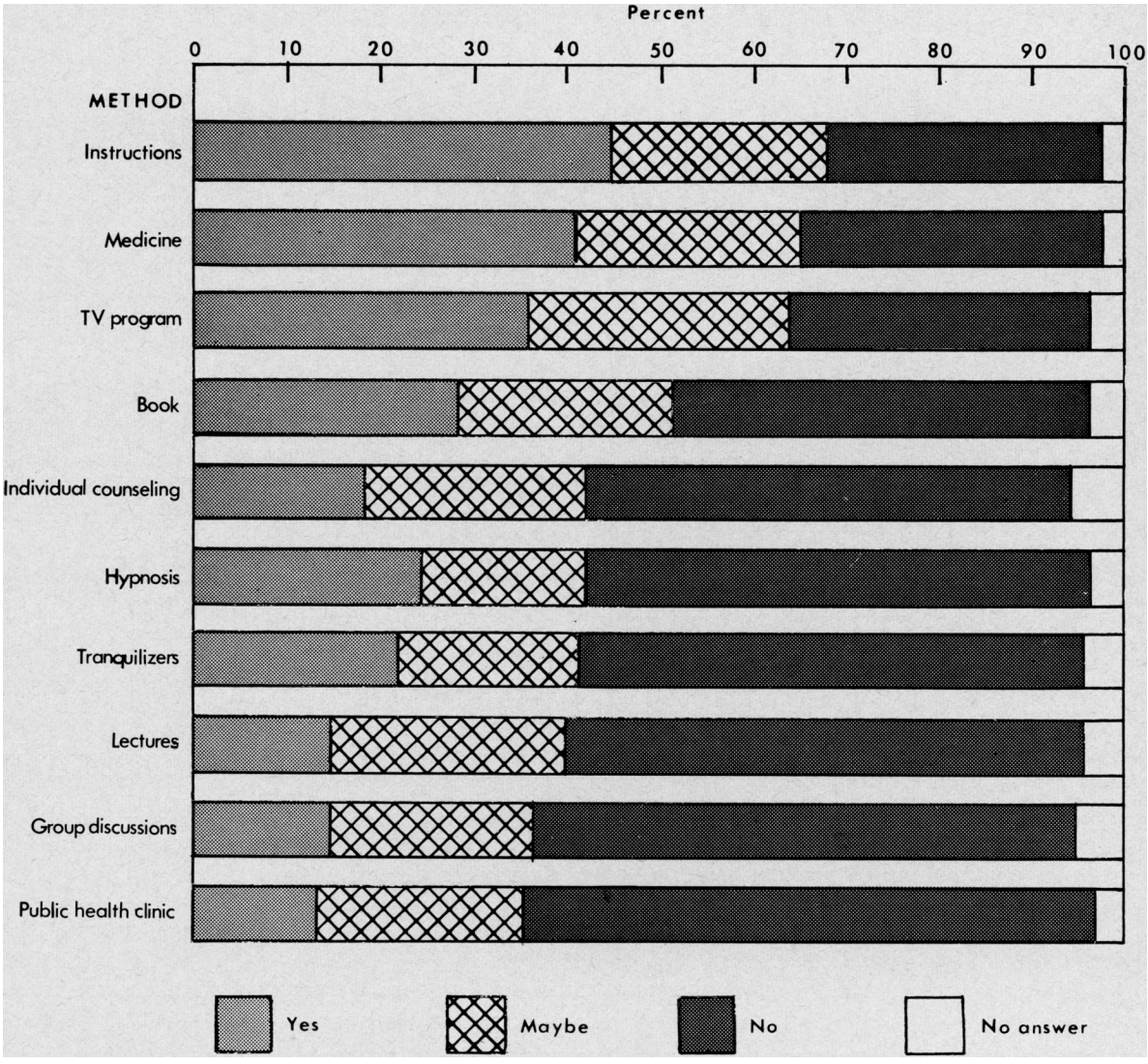
Of the 358 regular smokers, 13 percent did not accept any method listed, while an equal

Table 1. Willingness of smokers to accept methods to help them stop smoking, Smoking Control Research Project, California

Method	Yes or maybe		Yes		Maybe		No		No answer	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Instructions	248	69. 3	163	45. 5	85	23. 7	104	29. 0	6	1. 7
Medicine	236	65. 9	146	40. 7	90	25. 1	116	32. 4	6	1. 7
Television programs	230	64. 3	130	36. 2	100	27. 9	115	32. 1	13	3. 6
Book	188	52. 6	104	29. 0	84	23. 4	157	43. 8	13	3. 6
Individual counseling	151	42. 2	66	18. 4	85	23. 8	187	52. 2	20	5. 6
Hypnosis	151	42. 2	87	24. 3	64	17. 9	193	53. 9	14	3. 9
Tranquilizers	149	41. 7	80	22. 3	69	19. 3	191	53. 3	18	5. 0
Lectures	145	40. 5	53	14. 8	92	25. 6	195	54. 5	18	5. 0
Group discussions	129	36. 1	53	14. 8	76	21. 2	209	58. 3	20	5. 6
Public health clinic	128	35. 7	49	13. 7	79	22. 1	216	60. 4	14	3. 9

NOTE: Percentages are rounded independently and may not add to 100.0.

Percentage of smokers willing and unwilling to try 10 withdrawal methods



percentage said they would be willing to try all 10. Table 2 shows the acceptability of each method in terms of the frequency of combined yes and maybe responses. One-fourth of the subjects said they were willing to accept one to three methods, one-third would accept four to seven, and another one-third selected at least eight.

Among the group of smokers who found only a small number of methods acceptable, television programs was the method most frequently chosen, with instructions and medication next (table 3). Very few favored groups, individual counseling, lectures, or public health clinics.

Another way of assessing the relative popularity of methods is to determine which ones are least acceptable to smokers who are willing to try many of them. Table 4 shows that smokers who chose as many as seven to nine methods were most reluctant to select tranquilizers and hypnosis, with public health clinics and both types of counseling next. Of the 107 smokers who accepted most methods, only 18 percent said they were unwilling to go to lectures, but more than 40 percent did not wish to try hypnotism. Yet 29 percent of the persons accepting only a few methods indicated they would or might try hypnosis, while only 2 percent said

they were willing to attend lectures. Both groups, however, had the same three first choices—instructions, medicine, and television programs—although not in the same order.

Types of Methods

Methods involving only the smoker, with the possible exception of a professional to dispense pills, instructions, and so forth, and those involving the active participation of an outside professional were compared.

Combining yes and maybe answers, a comparatively large number of smokers were willing to try methods for quitting on their own. More than half selected instructions, medicine, television, and books as opposed to a technique involving a professional. Table 5 shows the mean number of persons willing to accept the two types of methods.

The methods carried out alone were classified according to whether they were entirely self-administered (television and book) or involved an initial meeting with a professional (medicine or tranquilizers). Instructions could require more than one such contact and was therefore omitted from the comparison. The self-administered methods were preferred by most respondents.

When professionals are involved throughout the procedure, there may be either a one-to-one relationship such as patient-therapist or a group effort. The public health clinic does not belong in either category. In general, smokers tended to select the one-to-one relationship with a therapist over the group cessation programs.

Table 2. Number of cessation methods acceptable to smokers, Smoking Control Research Project, California

Methods	Yes or maybe	
	Number	Percent
Total	358	100. 0
None	46	12. 9
1	20	5. 6
2	30	8. 4
3	41	11. 4
4 or 5	65	18. 2
6 or 7	43	12. 0
8	36	10. 0
9	28	7. 8
10	45	12. 6
No answer	4	1. 1

Factors Affecting Acceptance of Methods

Responses to various other items in the questionnaire were studied to determine whether certain variables influenced a person's willingness to try smoking withdrawal methods. The factors investigated were age, number of cigarettes smoked per day, wife's smoking habits,

Table 3. Cessation methods acceptable to smokers willing to try one, two, or three methods, Smoking Control Research Project, California

Methods	Smokers willing to try[1]—							
	1 method		2 methods		3 methods		Total	
	Number (N=20)	Percent	Number (N=30)	Percent	Number (N=41)	Percent	Number (N=91)	Percent
Instructions	3	15. 0	11	36. 7	28	68. 3	42	46. 2
Medicine	3	15. 0	12	40. 0	23	56. 1	38	41. 8
Television programs	9	45. 0	15	50. 0	25	61. 0	49	53. 8
Book	0	--------	5	16. 7	14	34. 1	19	20. 9
Individual counseling	0	--------	4	13. 3	4	9. 8	8	8. 8
Hypnosis	4	20. 0	8	26. 7	14	34. 1	26	28. 6
Tranquilizers	1	5. 0	3	10. 0	10	24. 4	14	15. 4
Lectures	0	--------	1	3. 3	1	2. 4	2	2. 3
Group discussions	0	--------	1	3. 3	1	2. 4	2	2. 3
Public health clinic	0	--------	0	--------	3	7. 3	3	3. 3

[1] Yes and maybe responses are combined.

Table 4. Cessation methods acceptable to smokers willing to try seven to nine methods, Smoking Control Research Project, California

Methods	Smokers willing to try [1]—							
	7 methods		8 methods		9 methods		Total	
	Number (N=43)	Percent	Number (N=36)	Percent	Number (N=28)	Percent	Number (N=107)	Percent
Instructions	40	93. 0	35	97. 2	28	100. 0	103	96. 3
Medicine	39	90. 7	32	88. 9	28	100. 0	99	92. 5
Television programs	34	79. 1	31	86. 1	28	100. 0	93	86. 9
Book	30	69. 8	31	86. 1	25	89. 3	86	80. 4
Individual counseling	20	46. 5	30	83. 3	27	96. 4	77	72. 0
Hypnosis	23	53. 5	23	63. 9	16	57. 1	62	57. 9
Tranquilizers	24	55. 8	21	58. 3	17	60. 7	62	57. 9
Lectures	27	62. 8	33	91. 7	28	100. 0	88	82. 2
Group discussions	18	41. 9	28	77. 8	28	100. 0	74	69. 2
Public health clinic	19	44. 2	24	66. 7	27	96. 4	70	65. 4

[1] Yes and maybe responses are combined.

social class, participation in membership organizations, chronic illnesses, attitudes toward cigarettes, and items measuring the motivation to quit. Chi-squares of differences between subjects willing to accept zero to three, four to seven, or eight to 10 methods were obtained for each variable separately.

Since the number of withdrawal methods a smoker states he is willing to try is a reflection of his wish to stop smoking, we might expect other motivational indices to differentiate various levels of acceptance (table 6). Indeed, the items relating directly to concern about smoking and desire to stop yielded the highest chi-squares, both significant beyond the 0.001 level. The more concerned the person was and the more he wished to stop smoking, the more methods he was willing to accept. More than half of those who were very concerned chose eight to 10 methods, compared to 43 percent of those concerned, 25 percent of those slightly concerned, and 3 percent of those not concerned. Similarly, 93 percent of the people who said they did not wish to stop smoking selected only zero to three methods, whereas less than one-fifth of those who wanted to stop picked such a small number. (Of 136 subjects who wished to quit smoking and were assigned to either individual or group counseling as a method to help them do so, 51—37.5 percent—succeeded).

To the extent that cognitive and motivational factors are consistent, persons who have unfavorable opinions about cigarettes and feel that they endanger one's health are likely to want to stop smoking and are willing to try many methods (table 6). Of those who were strongly convinced that smoking causes disease, half found eight to 10 methods acceptable; only 15 percent of those least convinced of the dangers of cigarettes did so.

All questionnaire respondents were between 25 and 44 years old at the time of the study. Age in terms of four 5-year groupings was not

Table 5. Mean number of persons willing to accept methods accomplished alone or involving other persons, Smoking Control Research Project, California

Methods	Yes or maybe responses	
	Average number	Percent
Total	358. 0	100. 0
Accomplished by individual alone	210. 2	58. 7
Self-administered throughout	209. 0	58. 4
Initial meeting with professional	192. 5	53. 8
Other persons actively involved	140. 8	39. 3
One-to-one relationship	151. 0	42. 2
Group effort	137. 0	38. 3

significantly related to willingness to accept smoking withdrawal methods. Neither was the smoking behavior of the subject (light, medium, heavy) nor that of his wife (never smoked, former smoker, current smoker). Number of chronic illnesses experienced (none, one, two or more) was also unrelated to the number of methods accepted.

Smokers were categorized into one of three broad social class groupings (high, middle, and low). Classification was based on the Hollingshead two-factor index of occupation and education, modified by taking income into account (*7*). The upper class subjects tended to accept more methods than the lower class group; the middle class group was evenly divided into high, medium, and low acceptance.

There was no clear relationship between willingness to try smoking withdrawal methods and levels of social participation in organizations. The highest proportion of smokers choosing few methods (almost 50 percent) occurred within the group least involved in organizations, followed by the group which was most involved (42 percent). Those scoring in the middle range on social participation were most likely to accept eight to 10 methods. Although none of these differences was significant, it appears that active and nonactive participators both chose relatively few methods—probably for different reasons. Those highly involved in organizations are likely to have less time to spare and to be more selective in choosing their activities, whereas the nonparticipators may simply be reluctant to commit themselves. Moreover, active extroverted persons have been shown to be less likely to give up smoking (*8*).

Summary and Discussion

A questionnaire mailed to a random sample of men aged 25–44 years enrolled in a prepaid health plan was analyzed to determine the willingness of smokers to try each of 10 methods designed to help them give up cigarettes. The results were presented in terms of the popularity of the various methods and of some of the

Table 6. Number of cessation methods acceptable to smokers by attitude toward smoking, belief in disease causation hypothesis, concern about smoking, and desire to stop smoking, Smoking Control Research Project, California

Factors	Total number [1]	Number of methods acceptable [2]					
		0–3		4–7		8–10	
		Number	Percent	Number	Percent	Number	Percent
Attitude toward smoking [3]	354	137	38. 7	108	30. 5	109	30. 8
Unfavorable	139	33	23. 7	48	34. 5	58	41. 7
Moderate	140	53	37. 8	45	32. 1	42	30. 0
Favorable	75	51	68. 0	15	20. 0	9	12. 0
Belief in disease causation hypothesis [4]	325	118	36. 3	105	32. 3	102	31. 4
Strong	40	7	17. 5	13	32. 5	20	50. 0
Moderately strong	87	24	27. 6	31	35. 6	32	36. 8
Moderately weak	158	63	39. 9	51	32. 3	44	27. 8
Weak	40	24	60. 0	10	25. 0	6	15. 0
Concern about smoking [5]	353	137	38. 8	108	30. 6	108	30. 6
Very concerned	49	8	16. 3	14	28. 6	27	55. 1
Concerned	104	19	18. 3	40	38. 5	45	43. 3
Slightly concerned	132	56	42. 4	42	31. 8	34	25. 8
Not concerned	68	54	79. 4	12	17. 6	2	2. 9
Desire to stop smoking [6]	353	136	38. 5	108	30. 6	109	30. 9
Yes	188	33	17. 6	68	36. 2	87	46. 3
Maybe or don't know	110	52	47. 3	39	35. 4	19	17. 3
No	55	51	92. 7	1	1. 8	3	5. 4

[1] The number of subjects differs because not all persons answered all questions.
[2] Yes and maybe responses are combined.
[3] $X^2=34.74$; degrees of freedom=4; $P<0.001$.
[4] $X^2=22.56$; degrees of freedom=6; $P<0.001$.
[5] $X^2=390.53$; degrees of freedom=6; $P<0.001$.
[6] $X^2=115.68$; degrees of freedom=4; $P<0.001$.

NOTE: Percentages are rounded independently and may not add to 100.0.

sociopsychological factors affecting willingness to accept them.

We recognize that expressed acceptance of a method is different from actual participation. Thus, these findings must be applied with caution. Conclusions are also limited by the list of techniques offered; perhaps other procedures not included would have been more attractive to respondents. Furthermore, only adult white males, most of whom were married, were sampled; patterns might well be different for females, nonwhites, or single men.

Our results indicate that although many smokers were concerned and wanted to quit, they were not willing to use the methods most commonly offered by physicians, psychologists, and public health workers. Accordingly, the techniques eliciting least support from smokers were lectures, tranquilizers, and individual and group counseling. Respondents were not eager to participate in psychologically oriented approaches or those requiring the assistance of a professional person; perhaps they were also reluctant to commit themselves to regularly scheduled, ongoing programs. It is possible that many smokers would be more favorably disposed toward such methods once they understood them better.

Smokers most frequently favored receiving instructions on how to quit smoking on their own. Next followed taking medicine and watching a series of television programs at home. In addition to being the most popular procedures, instructions and television programs were also the simplest for smokers to apply and require the least activity and initiative on their part.

Public health agencies would do well to concentrate on methods which smokers indicate they are willing to try. For example, a television series could be broadcast on an educational channel and watched in the privacy and convenience of the person's own living room—where none but his family need know he is attempting to stop smoking. It may be that people would rather not expose their attempt and possible failure to strangers, as in a group withdrawal effort. The domestic setting might also encourage husband and wife to stop smoking together by watching and receiving instructions on how to do it.

The rest of the procedures listed varied in popularity among different subjects. For example, persons who accepted only a few methods were more inclined towards hypnosis than those who accepted many. For those who accepted many methods, lectures were more popular.

In terms of individual differences, stated willingness to try smoking withdrawal techniques is directly related to the subject's motivation to stop smoking, as assessed by his concern about smoking, desire to quit, and related cognitive factors. Age, amount smoked, and chronic illness did not influence the acceptance of methods. For maximum potentiality of success, therefore, organizations planning to sponsor smoking withdrawal aids for the public should consider both the smoker's desire to quit and the general acceptability of the method offered.

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