Self-Help Materials

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INTRODUCTION

Population-based approaches to smoking cessation can be viewed on the continuum of clinical to public health interventions (Curry, 1993). At one end, a clinical approach provides intensive, efficacious interventions to smokers who seek help, whereas a public health approach provides lower intensity interventions to a broader spectrum of the population (Abrams *et al.*, 1991; Lichtenstein and Glasgow, 1992). Generally, population-based approaches fall in at the public health end of this continuum. At the population level, we often talk about wanting to maximize the impact of an intervention. Impact can be defined as the product of an intervention's reach (*i.e.*, the proportion of smokers who are exposed to the intervention) and its effectiveness (*i.e.*, the cessation rate associated with the intervention). Because of their potential for wide-scale dissemination, self-help materials for smoking cessation are an important component of population-based approaches to smoking cessation.

We define self-help materials as comprehensive behavioral programs for smoking cessation that do not require attendance at treatment sessions (in person or via telephone). Such programs can take the form of written materials, computerized programs, or audio-visual programs. Self-help materials can be delivered alone or as part of a set of intervention components that comprise "minimal interventions." Examples of minimal intervention packages include self-help materials along with proactive telephone counseling, with pharmacotherapy, or with face-to-face treatment sessions.

There are several intuitively appealing features of self-help materials. As noted above, the materials can package components of intensive interventions for broad reach into the population. Such materials are relatively low cost to disseminate in a variety of settings. Self-help materials can be tailored or customized for different target groups, and users of self-help materials can tailor the program recommendations to their own specific needs. Self-help materials can be kept and reused for multiple quit attempts. Finally, the majority of smokers prefer less intensive self-help approaches (Fiore *et al.*, 1990).

This brief report examines the current state of knowledge regarding the rates of use for self-help materials among the general smoking population and the impact of self-help materials on smoking cessation attempts and on the achievement rates of smoking cessation success.

UTILIZATION OF SELF-HELP MATERIALS

Key national surveys of tobacco use and cessation—including the 1986 Adult Use of Tobacco Survey and the past and current Behavioral Risk Factor Surveys—do not assess the use of self-help materials. Nor did the Fiore *et al.* (1990) analysis of assisted and unassisted methods of cessation include a specific reference to self-help materials. The 1986 version of the Cancer Control Supplement to the National Health Interview Survey *did* ask current smokers whether they had ever tried to stop smoking by following instructions in a book or pamphlet, but these data have not been published (Office on Smoking and Health, personal communication, 1998).

Data on use of self-help materials alone and in combination with other interventions (*e.g.*, counseling, nicotine replacement, etc.) are available from the 1996 California Tobacco Survey for adults. Among adults age 25 and older who were daily smokers 12 months prior to the survey and who had made a quit attempt in the past 12 months, 2.5 ± 0.7 percent reported using self-help materials alone and 9.3 ± 1.3 percent reported using them alone or in combination with some other cessation method (Table 7-1). These rates of use are higher than for counseling, but lower than the rates for nicotine gum or patch, particularly gum or patch used either alone or in combination with other methods. There appear to be some differences in rates of use by age, with a lower proportion of younger smokers (ages 18-24, data not shown) reporting the use of self-help methods, either alone or in combination. Female smokers were slightly more likely than males to use self-help approaches in combination with other methods, and Asian/Pacific Islander smokers were slightly less likely to use self-help approaches. Otherwise, there were few differences by age or race/ethnicity. There was a modest increase in the use of self-help approaches among higher educated and higher income groups (with the exception of those earning $75,000 or more). Figure 7-1 shows abstinence rates at the time of the survey for adult smokers who reported using either no cessation method or using counseling, patch, gum, or self-help alone or in combination with another method. Self-help, patch, and gum, when used in combination with other methods, had significantly higher rates of being quit at the time of the survey, but the differences in being quit for 3 or more months were not statistically significant, possibly due to the small number of observations.

Table 7-2 presents the current smoking or cessation status at the time of the survey for those who were daily smokers 1 year prior to the survey and who made a cessation attempt. Cessation and smoking status are presented by the method used. Although the confidence intervals on these observations are too broad to draw statistically significant interpretations, the fraction of those who made a quit attempt and who are still quit at the time of the survey among those reporting that they used self-help methods alone is only slightly higher than that for those who reported using no method at all. The use of gum alone, self-help in combination with counseling or patch or gum, and patch or gum in combination with self-help or counseling were all associated with a higher rate of being still quit at the time of the survey. There is a suggestion that self-help used in combination with patch, gum, or counseling may be more effective than self-help methods

Table 7-1

Aids Used by Those Who Made a Cessation Attempt in the Last Year*—California Tobacco Survey, 1996

	Single Aid Only										Combination of Aids**									
	None		Counseling		Self-Help Materials		Nicotine Patch		Nicotine Gum		Counseling		Self-Help Materials		Nic Patch or Gum		Unknown		Pop Size (N)	Samp Size (n)
	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI	%	± CI		
Total	72.3	2.0	1.7	0.7	2.5	0.7	4.6	0.8	3.3	0.8	7.1	1.1	9.3	1.3	21.0	1.8	0.7	0.3	1,266,663	2,680
Gender																				
Male	75.2	2.7	1.3	0.8	2.4	1.0	4.7	1.1	2.7	1.0	5.6	1.4	8.0	1.7	19.2	2.3	0.6	0.5	707,535	1,377
Female	68.5	3.4	2.2	1.1	2.7	1.1	4.4	1.2	3.9	1.4	8.9	1.6	11.0	1.9	23.4	2.9	0.7	0.5	559,127	1,303
Age (Years)																				
25–44	74.6	2.1	1.9	0.9	2.9	0.9	3.9	0.8	2.7	0.9	6.0	1.2	9.0	1.7	18.2	2.0	0.9	0.5	797,986	1,661
45–64	69.3	4.2	1.7	1.4	2.0	1.0	5.7	1.8	3.6	1.5	9.2	2.6	10.0	2.6	24.1	3.5	0.3	0.4	365,166	803
65+	64.3	7.7	0.4	0.8	1.3	1.8	6.3	2.8	6.6	5.1	7.7	3.8	9.1	4.8	32.5	7.5	.	.	103,509	216
Race/Ethnicity																				
NH White	68.4	2.2	1.2	0.6	2.6	0.7	6.1	1.1	3.5	1.1	6.8	1.1	9.7	1.4	25.1	2.1	0.7	0.4	806,518	1,930
Hispanic	80.6	4.6	2.7	2.1	2.0	1.6	2.0	1.6	2.5	1.8	6.5	3.0	7.6	2.9	13.2	4.0	0.4	0.7	224,058	332
Afric-Am	79.5	6.2	1.8	2.9	3.6	2.6	.	.	2.4	2.2	9.5	4.9	10.7	4.1	11.4	4.9	2.1	2.3	111,550	185
Asian/PI	77.9	7.7	2.6	4.1	2.2	2.4	5.7	4.1	2.9	2.9	8.0	6.4	5.9	3.9	15.5	6.1	.	.	70,309	135
Nativ Am	72.5	13.7	2.9	4.2	1.3	2.5	1.8	2.1	4.6	8.3	7.4	4.7	12.0	6.5	20.7	11.1	.	.	54,227	98
Other	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	0	0
Education (Years)																				
<12	77.2	5.6	3.8	2.5	1.5	1.2	2.1	1.4	3.3	2.0	8.3	3.1	7.2	3.0	15.8	4.8	1.0	0.8	299,599	312
12	72.0	3.1	1.1	0.6	2.7	1.0	6.1	1.5	2.1	1.0	6.0	1.9	9.2	2.2	22.3	2.9	0.5	0.5	364,834	903
13–15	71.9	3.7	1.0	0.7	2.6	1.2	5.2	1.6	2.8	1.0	6.7	1.8	9.8	2.1	20.4	3.2	1.1	0.9	359,691	887
16+	67.1	4.8	1.0	0.8	3.4	1.5	4.6	1.6	5.5	2.4	7.7	2.5	11.3	2.7	26.5	4.2	.	.	242,537	578
Household Income (Dollars)																				
≤10K	78.2	5.3	3.0	2.7	1.9	1.5	1.8	1.9	3.2	2.5	8.3	4.0	6.9	3.3	14.8	4.7	1.2	1.3	156,924	264
10-20K	76.3	4.9	2.5	2.1	1.9	1.3	3.7	1.8	2.6	1.8	6.8	3.2	6.4	2.7	18.2	4.5	0.7	1.0	187,040	354
20-30K	78.5	4.4	0.6	0.7	3.1	1.7	3.6	1.8	1.8	1.1	4.5	2.0	9.7	2.9	14.9	4.3	0.8	1.1	190,339	398
30-50K	69.7	4.4	1.5	1.4	2.5	1.3	6.0	2.2	2.9	1.5	7.6	2.6	10.4	2.9	23.8	4.1	0.6	0.7	271,517	605
50-75K	66.9	5.7	1.6	1.5	3.6	2.0	5.4	2.1	3.3	1.7	8.6	3.1	13.5	4.1	23.9	5.0	0.7	0.9	200,708	452
>75K	64.9	5.6	2.3	2.4	1.2	1.2	6.6	2.5	5.4	3.6	7.7	3.2	6.9	2.8	29.9	5.5	0.4	0.7	148,285	377
Unknown	71.9	6.4	0.4	0.7	3.4	2.3	4.4	2.9	4.8	3.9	5.2	2.5	9.7	4.0	21.5	5.7	0.4	0.7	111,848	230

*Those 25+ years of age who have made a quit attempt in the past year and were daily smokers 1 year ago.

**Combination includes use of the method alone or with any other method.

Figure 7-1
Current Cessation Status at Time of Survey by Method Used among Those Who Were Daily Smokers 1 Year prior to the Survey and Who Made a Quit Attempt, Ages 25+, 1996 CTS

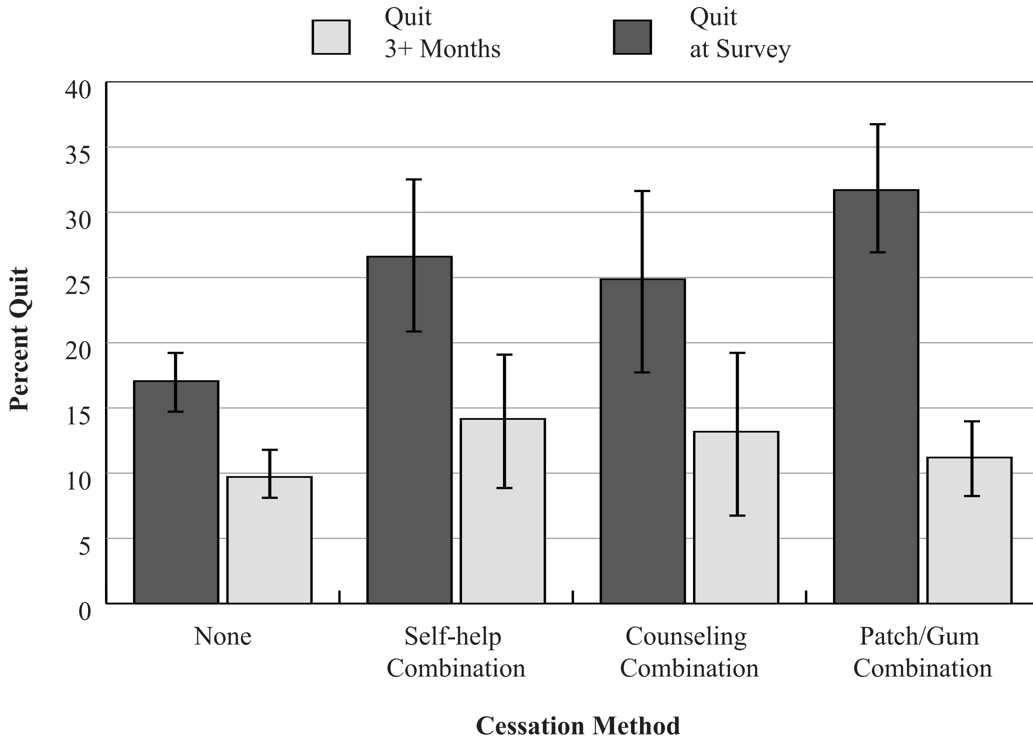

Table 7-2
Current Smoking and Cessation Status by Method of Cessation Used*

	Current Smoker w/Quit Attempt				Former Smoker of Any Quit Length		Pop Size	Samp Size
	Daily		Occasional					
	%	CI	%	CI	%	CI	(N)	(n)
Total	71.79	2.09	7.56	1.21	20.65	1.90	1,266,663	2,680
Single Aid Only								
None	74.59	2.30	8.35	1.60	17.06	2.20	915,186	1,886
Counseling Only	.	.	3.79	5.39	.	.	21,538	38
Self-Help Only	73.04	9.63	6.48	5.66	20.48	8.88	32,124	74
Patch Only	67.11	8.17	6.49	4.06	26.40	8.04	58,422	142
Gum Only	57.49	14.99	8.00	6.32	34.52	14.16	41,251	92
Aids in Combination								
Counseling**	71.81	7.11	3.32	2.55	24.87	7.16	89,356	189
Self-Help**	69.06	6.22	4.34	3.07	26.60	6.08	117,871	260
Patch/Gum**	62.62	4.87	5.68	1.76	31.71	4.51	266,595	612
Unknown	.	.	.	.	.	.	8,549	16

Those 25+ years of age who have made a quit attempt in the past year and were daily smokers 1 year ago.
***Combination includes use of the method alone or with any other method.*
Source: California Tobacco Survey, 1996

used alone. In contrast, there is no trend suggesting that the addition of self-help or counseling methods improves the percentage of gum users who are quit at the time of the survey. These data suggest that, if self-help materials are used, they should be used as one component of a multi-component cessation intervention.

Unpublished data from a study conducted at the Group Health Cooperative (Curry *et al.*, 1995) provide some population-based data on utilization of self-help materials. In this study, a total of 1,137 smokers were identified from a population-based survey of over 5,900 adults (response rate 74 percent). Smokers were asked the following question, "Have you ever tried self-help quit smoking books, pamphlets or guides?" Overall, 3 percent indicated that they were currently using one, 28 percent said they had used them in the past, and 69 percent said that they had never tried a self-help guide. Rates of use differed by gender, with women reporting significantly more current (4 percent versus 2 percent) and past (32 percent versus 24 percent) use than men.

Population-based estimates of the proportion of smokers who say they have used self-help materials do not provide insight into what the smokers actually do with the books or guides when they have them. Because self-help materials can be easily disseminated, it may be of particular interest to examine rates of use and the impact of materials in smokers who voluntarily request materials compared to those who receive the materials through population-based outreach efforts. A recent publication from our research program (McBride *et al.*, 1998) examined the use of self-help materials and smoking cessation among proactively recruited and volunteer intervention participants. The study used data from two separate randomized trials that used the same self-help manual as one of the treatment arms (Curry *et al.*, 1991 & 1995). As expected, volunteer smokers were significantly more likely to read the self-help materials and to complete any activities than were nonvolunteer smokers (84 percent versus 33 percent read materials, respectively; 49 percent versus 13 percent completed activities, respectively). Baseline variables that predicted use of the self-help materials (with use defined as reading at least half of the materials and completing any recommended activities) for the volunteer smokers were whether participants reported any prior quit attempts and a strong desire to quit smoking. Desire to quit smoking also predicted use among nonvolunteers, as did higher education level.

McBride and colleagues also tested for associations between using the self-help materials and outcomes at a 12-month follow-up. These prospective analyses examined whether reported use of the self-help manual at 3 months predicted quit attempts or abstinence when assessed at 12 months. In both the volunteer and nonvolunteer samples, self-reported use of the self-help manual at 3 months was associated with a higher likelihood of reporting 24-hour quit attempts at the 12-month follow-up. Use of the materials did not predict 12-month prevalent abstinence in either sample.

IMPACT OF SELF-HELP MATERIALS ON SMOKING CESSATION

The Cochrane Tobacco Addiction Review Group is completing a meta-analysis of self-help interventions for smoking cessation (Lancaster and Stead, 1999). They examined a total of 39 randomized clinical trials with a minimum of 6 months of follow-up. The studies were selected if they had at least one arm that included a self-help intervention without repeated face-to-face therapist contact. The target outcome is long-term abstinence, defined as either 6-month sustained abstinence or two consecutive point-prevalent abstinence reports.

Five hypotheses guided the review:

- Self-help interventions are better than no treatment.
- Self-help interventions are equivalent to more intensive behavioral interventions and to pharmacotherapy.
- Different forms of self-help materials (written, audio, video) have equivalent effects.
- Adjuncts such as computer-generated feedback, telephone hotlines, and pharmacotherapy increase effectiveness.
- Approaches tailored to the individual are more effective than nontailored materials.

Self-help interventions are defined as "any manual or program to be used by individuals to assist a quit attempt not aided by health professionals, counselors, or group support." The review group also distinguished tailored from personalized materials, with tailored materials defined as those "…prepared for and targeted at particular groups of smokers (*e.g.*, over 60, stage of readiness to change)" and personalized materials defined as those "…adapted for characteristics of individual smokers based on questionnaire responses."

Data were not available to address all of the review hypotheses. Tables 7-3 and 7-4 summarize the odds ratios and confidence intervals for several comparisons related to the self-help versus no self-help hypotheses and to the impact of enhancements to self-help. Among the key conclusions from the Cochrane analysis are:

- There is little evidence that self-help materials, used on their own, were an effective means of aiding smoking cessation.
- Tailoring materials to the perceived needs of broadly defined groups did not have an effect.
- Personalizing materials to the individual appeared to have an effect. However, there is insufficient evidence regarding the specific elements of personalization that may be important.
- Increasing the intensity of self-help interventions via telephone counseling increases quit rates.

Table 7-3
Preliminary Results from Cochrane Tobacco Addiction Review Group Meta-Analysis of Self-Help versus No Self-Help

Comparison	Peto OR [95% CI]
Neither group face-to-face (*n* = 9)	1.05 [0.87-1.26]
Both groups face-to-face (*n* = 4)	1.21 [0.97-1.52]
Both groups face-to-face with advice (*n* = 10)	0.95 [0.78-1.18]
Self-help vs. no self-help overall (*n* = 23)	1.06 [0.94-1.20]

Table 7-4
Preliminary Results from Cochrane Tobacco Addiction Review Group Meta-Analysis of Enhancements to Self-Help

Comparison	Peto OR [95% CI]
Additional written materials (*n* = 4)	1.02 [0.85-1.22]
Additional video (*n* = 2)	0.70 [0.38-1.31]
Tailored versus standard (*n* = 2)	1.14 [0.71-1.83]
Personalized versus standard (*n* = 6)	1.55 [1.16-2.07]
Additional phone follow-up (*n* = 6)	1.81 [0.67-1.31]
Self-help + NRT versus NRT only (*n* = 2)	0.84 [0.67-1.31]

GENERAL CONCLUSIONS

Despite their intuitive appeal and positive results in individual studies, meta-analytic results strongly indicate that self-help materials for smoking cessation have not demonstrated significant advantages over no-treatment control groups. In contrast to the discouraging results from comparing self-help to no self-help interventions, there are promising effects for minimal intervention programs that include personalization of printed intervention messages and for providing self-help materials along with supportive telephone counseling. Thus, although self-help materials may not significantly increase quit rates when used alone, they are so commonly a core component of minimal interventions that have been demonstrated to be effective that they may be a necessary component of these programs and may be useful for effectively delivering the personalized and/or telephone counseling components of minimal interventions. To date, however, there are no randomized trials evaluating the impact of self-help adjuncts such as personalized feedback or telephone counseling with and without comprehensive self-help materials.

Self-help materials have been evaluated with both volunteer and proactively recruited (*i.e.*, nonvolunteer) samples of smokers. As more nonvolunteer, population-based studies are completed, the evidence suggests that simply distributing self-help materials to the general population of smokers is unlikely to significantly increase rates of cessation. It is noteworthy that, in many of these studies, the intervention group achieved the target quit rate (*i.e.*, the proportional outcome used to determine sample size and statistical power). The null results were due to equally impressive quit rates in the no-treatment control groups. One interpretation of this pattern is that the assessment components of these population-based studies have as large an intervention effect as the minimal intervention protocols being evaluated.

Despite the lack of empirical support for the effect of self-help materials, it would be premature to recommend against their further dissemination. The meta-analyses summarized in this report do not address important questions such as whether health care providers are more likely to advise their patients to quit smoking if they have written self-help materials to distribute or whether worksites are more likely to adopt and enforce nonsmoking policies if they can make self-help materials available to their employees who smoke. Ultimately, we need to examine and appreciate the potential value of self-help materials in the broader context of the social and organizational components of population-based strategies for smoking cessation.

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