

Applied Research Briefs: Behavior Change

Physicians' Views of Programs Incorporating Stages of Change to Reduce Smoking and Excessive Alcohol Consumption

Robyn L. Richmond, Colin P. Mendelsohn

PURPOSE

Family medical practice is an ideal context for the early detection and delivery of programs to reduce tobacco and excessive alcohol use. Family doctors have a high contact rate with the general public and are readily accessible.^{1,2} A study conducted among more than 13,000 patients served by 119 family physicians in Sydney reported that 35% of men and 29% of women were smokers³ and 12 and 10%, respectively, were drinking alcohol at levels considered hazardous or harmful.⁴ Indeed, a majority of these patients felt their doctor should be interested in their smoking and drinking.³

A valuable framework for assessing a patient's readiness to stop smoking or to reduce excessive alcohol consumption is the stages-of-change concept, which was developed by Prochaska and DiClemente.^{5,6} The stages are: precontemplation, contemplation, preparation, action, and maintenance. An intervention should identify the stage of readiness of the patient to change, while the intensity, duration, and type of intervention should be responsive to the stage of change of the patient.^{5,6}

But what do the physicians think about such interventions that incorporate the stage concept, and what barriers, if any, exist in implementation? Data from two separate studies are presented here to compare physicians' views on the utility of the stage concept in assisting patients who smoke to quit and those who drink excessively

toward moderate consumption—two quite distinct yet similar problems confronting physicians.

The study objectives are to assess physicians' views of the usefulness of programs that incorporate the stages-of-change concept, determine their use of interventions, and identify any barriers to use. This information will assist in further development of interventions to enhance utilization.

METHODS

Design

In two separate studies, the effectiveness of training physicians in the use of patient programs that incorporate the stage-of-change concept was assessed using a simple posttraining follow-up design. Specifically, physicians completed an evaluation questionnaire 6 months after training, which included the following variables of interest: their current use of intervention programs and their components, perceived usefulness of program components, barriers to usage, and sufficiency of training. In both studies, physicians completed a demographic questionnaire directly after training and a follow-up questionnaire 6 months later to assess their views on and use of the interventions learned.

Samples

In both studies, physicians were selected on the basis of proximity to training venues and were recruited by invitation to training. In study 1, 198 (5%) of 4365 family physicians accepted written invitations and received training in workshops held throughout metropolitan and rural New South Wales in 1991 and 1992. In study 2, 74 (50%) of 149 family physicians within the South Eastern Sydney Division of General Practice accepted personal invitations, written and by phone, and were trained in either a workshop ($n = 35$) or one to one in their offices ($n = 39$) in 1994. Eligibility requirements included: not moving away in the next 12 months, currently working in family practice, and agreeing to participate in a follow-up survey. Data are unavailable for those not accepting invitations.

Measurement

In both studies, a one-page questionnaire was administered directly after training to obtain information about

Robyn L. Richmond, PhD and Colin P. Mendelsohn, MB BS (Hons) are at the School of Community Medicine, University of New South Wales, Kensington, NSW 2052, Australia. Robyn Richmond is also associated with the National Drug and Alcohol Research Centre, University of New South Wales, Kensington, NSW 2052, Australia.

Send reprint requests to Associate Professor Robyn L. Richmond, School of Community Medicine, University of New South Wales, Kensington, NSW 2052, Australia.

This manuscript was submitted for publication July 8, 1996; revisions were requested October 30, 1996; the manuscript was accepted for publication June 17, 1997.

Am J Health Promot 1998;12(4):254-257.

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0890-1171/98/\$5.00 + 0

the demographic and practice characteristics of physicians (e.g., age, sex, years in practice, number of medical partners, average number of patients per week). Dependent variables were assessed 6 months after training using a self-report questionnaire consisting of 25 predominantly closed-ended (i.e., tick boxes), descriptive items covering usage of the programs (i.e., *Over the past 2 months would you describe yourself as a: current user, former user, never user?*); barriers to usage (i.e., *What have been the barriers to your using the program?*, followed by 12 multiple response options); usefulness of program components (i.e., *What aspects of the program did you find useful?*, followed by six components, including stage-of-change concepts); current use of the components; sufficiency of training; and views on the patient-centered approach. All items were selected on the basis of reasonable face and content validity, but their reliability is unknown.

A total of 181 (91%) of the doctors in study 1 and 45 (61%) in study 2 completed this 6-month follow-up questionnaire. Another 22 (30%) physicians from study 2 who failed to return the questionnaire were contacted by phone to ascertain usage of the program and barriers to its use.

Interventions

Training for Physicians. Family physicians received training in either *Smokescreen for the 1990s*,⁷ a stop smoking program for patients, or the *Drinking Detective*, a controlled drinking program for patients. Both interventions incorporate the stage-of-change concept. The training programs for physicians were 2 hours and included: how to identify the smoker/excessive drinker; how to take a smoking/alcohol history; training in early and brief behavior change intervention skills; emphasizing patient responsibility in behavior change; how to provide self-help materials; and how to conduct periodic follow-up visits.

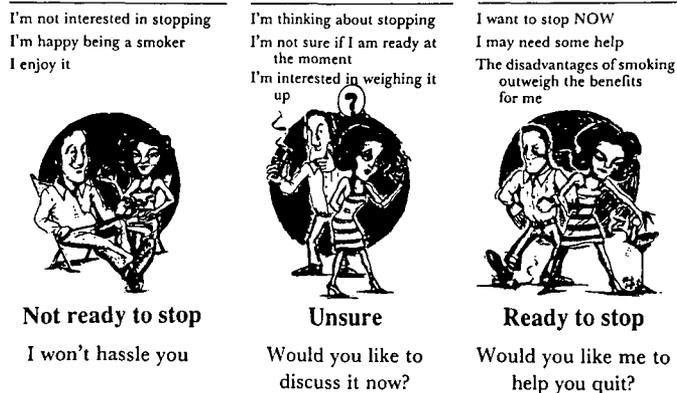
Interventions for Patients. In the first step, physicians identified the stage of readiness to quit smoking for each patient. Patients were asked, "How do you feel about your smoking/drinking?" and shown the flipchart. Figure 1 shows the cartoons and captions in the flipchart used for identifying stage of readiness to stop smoking. A kit of resources was provided to each physician. The *Smokescreen* kit included: a flipchart used to allocate patient to the appropriate readiness to quit category and to facilitate counselling; a manual of the program for the doctor⁸; booklets for each of the three readiness to change categories; and a poster for the waiting room. The *Drinking Detective* kit contained the *Drinking Detective* flipchart; a patient booklet suitable for all readiness categories; and a manual.⁹

Analysis

Analyses were conducted to compare the two study samples on all independent demographic variables and on the dependent posttraining variables of interest, such as use of the programs and components. These comparisons were assessed for significance using the Pearson χ^2 test for categorical data and the two-tailed *t*-test for continuous data.

Figure 1

How do YOU feel about your smoking at the moment?



RESULTS

Demographics

The demographic and primary care practice characteristics of the physicians in both studies were generally different, particularly in that all physicians involved in the drinking study worked in a single geographical area within metropolitan Sydney, while those involved in the smoking study came from rural (56%) and metropolitan (44%) centers throughout New South Wales ($p < .01$). In addition, physicians in the controlled drinking study were significantly older (47:43 years; $p < .01$) and were less likely to be working full time (73:87%; $p < .01$).

Utilization of the Interventions and Components

Eighty-eight percent of physicians were current users of the *Smokescreen* program at 6 months, which was significantly more than the 60% of physicians who were current users of the *Drinking Detective* program ($\chi^2 = 33.4$; $df = 2$; $p < .01$). Current users of the *Smokescreen* program were more likely to be younger than former or never users of the program ($t = 2.47$; $p < .05$), but this difference was not apparent in the controlled drinking study.

Ninety-two percent of physicians trained in the *Smokescreen* program and 98% in the *Drinking Detective* program who completed the 6-month questionnaire stated that the training received 6 months previously was sufficient to begin using the program. Current and former users of the program were asked to indicate the useful aspects of the programs. Physicians in both studies used the opening question with patients: "How do you feel about your smoking/drinking?" (87% and 85%, respectively). Physicians in the smoking study (89%) were much more likely than doctors in the drinking study (50%) to report that allocation to readiness groups was useful ($p < .01$). Just over half of the physicians indicated that follow-up of patients in the ready group was useful (60% and 53%, respectively).

Seventy-one percent of physicians in the smoking study

Table 1
Barriers to the Physician Using the Programs to Assist Smokers to Quit and Excessive Drinkers to Moderate Alcohol Consumption

Barrier	Smokescreen for the 1990s Program for Smokers (n = 181) %	Drinking Detective Program for Excessive Drinkers (n = 67) %
Too busy	54	61
Smokers/excessive drinkers are not responsive	23	22
Program too time consuming	14	21
Lack of confidence in administering the program	14*	5
Lack of financial remuneration	7	6
Using another method	8	9
Does not have a typical practice	8*	19
Practice has been undergoing change	6	10
Only dependent patients are left in my practice after years of giving advice	14*	5

* $p < 0.05$.

and 73% in the drinking study stated that they favored the more "patient-directed" approach used in the *Smokescreen* and *Drinking Detective* programs. Physicians in the smoking study were more likely than those in the drinking study to use the flipchart of colored pictures to advise patients about quitting (63:43%) and the relevant patient booklets (91:63%; $p < .01$).

Barriers to Utilization

The main barriers cited by the physicians in using the *Smokescreen* or *Drinking Detective* programs are shown in Table 1. In both studies, the most commonly cited barrier was being too busy. Second, was concern that smokers/excessive drinkers were not responsive to physicians' efforts. Nevertheless, 91% of current users of the smoking program and 96% of users of the controlled drinking program said they would continue to use the programs in the future.

DISCUSSION

Summary and Interpretation of Results

The two brief interventions for smoking cessation and controlled drinking that incorporated the stage-of-change concept were found to be popular with physicians, as a majority of them were using the *Smokescreen* and *Drinking Detective* programs 6 months after training, and younger physicians were more likely to be users of the smoking program (only). The main barrier reported by physicians in use of the programs was being too busy.

Significance

During the 1980s, all smokers and excessive drinkers were provided the same intervention from the physician regardless of their readiness to change. This approach has been superseded by interventions such as the *Smokescreen* and *Drinking Detective* programs that incorporate the stage-of-change concept, which allows physicians to provide targeted brief interventions according to the patient's readiness to change, and to employ patient-centered approaches. By applying the stage-of-change concept, success in intervening is redefined as helping the patient move through the stages toward achieving abstinence from smoking or controlled drinking. The value of this approach is that the physician is able to maximize available resources; little time is wasted on patients who are not yet ready to change their lifestyle; and more time can be spent with those patients likely to benefit from intervention.

It is an interesting enigma that more than half of the physicians in both studies reported that they were too busy to use the programs, yet the stated mission of physicians is to save lives and many patients will die prematurely from unhealthy lifestyles. Why is it, then, that physicians are too busy to deal with conditions that have high case mortality rates? One possible answer is that physicians are torn between patient wants, which are those issues that the patient wants to ask about in the consultation, such as reassurance and cure, and patient needs, which are those interventions that will make a difference to patients' longevity and physical well-being. During physician training on lifestyle interventions, there should be an appreciation of the difficulties faced between what patients want and what the doctor thinks they need, and a refocusing on ways they can deal with this problem.

Another barrier that blocked effective use of interventions for smokers and excessive drinkers was that patients were perceived as not responsive. This may still relate to physicians' trying to help patients who are not ready to change, rather than the interventions themselves. For physicians to continue to deliver lifestyle interventions, they need to be reinforced by seeing patients who have successfully modified their behavior as a result of their intervention. Otherwise, they may feel discouraged and lack confidence to advise smokers and drinkers to change.

Limitations

The primary limitation of the current sampling methods of the two studies is that we are unable to generalize the findings to the larger population of physicians in Australia. That is, those physicians who accept an invitation for training are more likely to be motivated to use the programs under question. Secondly, between the two studies, comparisons are also limited. Those physicians recruited to the smoking study were likely to be more motivated because they had to make an effort to accept an invitation, whereas those in the drinking study had to actively decline training. Physicians in the drinking study were also from a far more restricted geographical location. Finally, conclusions regarding the independent variables of

interest are limited by the unknown reliability of the measures used.

Despite these limitations, the diversity shown in the two study samples of physicians can still be useful for assessing views about smoking cessation and controlled drinking programs. Indeed, the present samples demonstrate what really happens when interventions are taken into the field of primary care, where there are varying degrees of motivation to participate.

However, this diversity in the two study samples of physicians reflects the reality of training in primary care, where different recruitment methods are used for training programs and where there are varying degrees of motivation among participants.

Acknowledgments

We are grateful to the physicians and their office staff and to the patients who participated in the studies. Linda Kehoe expertly conducted the statistical analyses of the data from both studies. The studies were funded by the National Drug and Alcohol Research Centre, the Drug and Alcohol Directorate of the New South Wales Department of

Health, and the Commonwealth Department of Health, Housing, Local Government and Community Services.

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Erratum

Lillian S Lin, coauthor of "Adult Consumption of Fruit and Vegetables and Fat Related Practices by Meal and Day." 1998 vol 12, no 3, pp. 162-165, completed the work reported in that article while in the Department of Biostatistics, Rollins School of Public Health at Emory University, Atlanta, Georgia.