Brief Reports

Smoking Patterns in a Low-Income Urban Population

A Challenge to Smoking Cessation Efforts

Kathleen M. Macken, MD, Denise Wilder, LP, David J. Mersy, MD, and Diane J. Madlon-Kay, MD St. Paul, Minnesota

Smoking is the greatest single cause of premature, preventable death in the United States. Smoking rates and the burden of smoking-related illness vary by several demographic factors such as age, race, sex, and geographic region. The difference in smoking rates between white-collar and blue-collar workers, however, exceeds differences by any of the other factors.¹

Because of nicotine's powerful addictive properties, stopping smoking is difficult for smokers of all combinations of demographic variables. But smoking cessation may be especially challenging for blue-collar or low-income populations. This report describes the smoking patterns of the patients in a family practice clinic serving a bluecollar neighborhood, and the problems encountered when a smoking cessation program was attempted there.

Methods

The study took place at the Family Physicians Health Center in St Paul, Minnesota. Residents from the St Paul–Ramsey Department of Family Medicine provide care for the predominantly low-income urban patient population. For a 2-month period in the spring of 1988, all adults presenting to the clinic were asked to complete a seven-item questionnaire about their smoking habits. For the following 3 months, a research assistant attempted to telephone smokers who indicated on the questionnaire that they would like to quit smoking and never smoke again. The assistant documented all at-

Submitted, revised, May 25, 1990.

tempted calls and their outcomes. These patients were invited to participate in a free smoking cessation program at the clinic. Interested smokers were scheduled for an appointment with a physician for counseling on cessation techniques. All of the residents had been trained in these techniques. A detailed protocol and patient education material had been developed for use in the counseling sessions.

Results

Five hundred six people completed the questionnaire: 57% were smokers and 43% were nonsmokers. The mean age of patients was 35 years, and 70% were women. Forty-two percent of patients had private health insurance, while the government, primarily the state, paid for the health care of 41%. The remaining patients either had no insurance or did not know their insurance coverage. These demographics were similar for both smokers and nonsmokers.

Forty-eight percent of smokers reported having a spouse or roommate who smoked. Only 25% of nonsmokers reported having a spouse or roommate who smoked ($\chi^2 = 40, P < .001$).

Smokers were asked their goals in regard to smoking (Figure 1). Fifty-one percent (146) of those responding wanted to quit now and never smoke again. Four percent (11) wanted to continue to smoke. The remainder wanted to cut down or quit some other time.

Smokers were asked to write their telephone number on the questionnaire in case of possible future questions. Fifteen percent of smokers did not write a telephone number. Four percent specifically indicated that they did not have a telephone.

The research assistant attempted to contact 93 of the smokers with a telephone number who indicated on the continued on page 95

From the Department of Family Medicine, St Paul–Ramsey Medical Center, St Paul, Minnesota. Requests for reprints should be addressed to Diane J. Madlon-Kay, MD, Department of Family Medicine, St Paul–Ramsey Medical Center, 640 Jackson St, St Paul, MN 55101-2595.

^{© 1991} Appleton & Lange

continued from page 93



Figure 1. Outcome of clinic smoking cessation program with respect to 289 (57%) smokers self-identified in a questionnaire completed by 506 patients.

questionnaire that they wanted to quit now and never smoke again. Twenty-two smokers (24%) were interested in the clinic smoking cessation program and were scheduled for counseling with a physician. The results of the attempts to contact the rest of the 93 smokers are shown in Figure 1. Contact was not attempted for 35 smokers because the research assistant became ill. This task was not reassigned because the inefficiency of the telephone contacts was already apparent.

Of the 22 smokers scheduled for counseling with a physician, 8 patients kept their appointments and 14 did not. The research assistant made an average of 27 telephone calls for each completed smoking cessation counseling visit.

Discussion

Smoking is a very important and common health problem for the patients at this family practice clinic. The smoking rate of this population is more than twice that of Minnesota or the country as a whole.¹ A selection bias may be present if many patients were seeking care for smoking-related illnesses. The poor results of the clinic's smoking cessation efforts are particularly disappointing in light of the obvious need for an effective program.

The smokers and nonsmokers in this study were similar demographically. Smokers, however, were significantly more likely than the nonsmokers to have a smoking spouse or roommate. Spouse concordance of smoking patterns has been described previously.² It has been suggested that marriage to a smoker may inhibit smoking cessation and that smoking interventions may need to be directed toward the married couple rather than toward the individual.²

The approach to smoking cessation used by the clinic had two major drawbacks that contributed to the poor results. First was the attempt to contact smokers by telephone. Fifteen percent of smokers did not provide a telephone number. Twenty-seven percent of the smokers that the assistant tried to call had a disconnected number, had moved, or had given the wrong number. A program that requires 27 telephone calls for each cessation counseling visit is obviously inefficient.

The problem with telephone contact is probably a reflection of the low-income and transient population in the clinic neighborhood. Three out of four students starting classes at one area elementary school leave before the end of the school year.³ Other patients simply cannot afford a telephone.

Lack of telephone availability is of particular note, since telephone contact has been a useful part of other smoking cessation programs. Most commonly the telephone has been used and recommended as a method of follow-up and to reinforce other stop-smoking interventions.⁴

A second major drawback to the clinic's smoking cessation effort was that it required the patients to make a special clinic visit for the counseling. Approximately 22% of clinic patients do not keep their appointments routinely. The 67% no-show rate for smokers scheduled for counseling visits, although higher than usual, is not surprising in this setting. Many smoking cessation programs having good compliance rates use a patient visit for other reasons to initiate counseling, with special follow-up appointments for reinforcement.⁴

Blue-collar workers are a particularly difficult group for the health community to reach.⁵ The reasons are complex and reviewed elsewhere.⁶ Some community strategies for blue-collar smokers that have been effective are worksite smoking-cessation programs, employee incentive programs, and policies banning smoking at the workplace.⁵

Almost all of the smokers in this study had a goal of quitting or cutting down their tobacco use eventually.

HEALTH ONE EMERGENCY MEDICAL SERVICES presents

UNDERWATER MEDICINE CONFERENCE

Stouffer Wailea Beach Resort Maui, Hawaii

Feb. 18-22, 1991

TOPICS: • Diving Survival • Baro Trauma • Decompression • Toxicology • Hyperbaric Medicine • MORE

INSTRUCTORS: ALFRED BOVE, M.D. ROBERT OVERLOCK, M.D. JON PEGG, M.D.



FOR FREE BROCHURE CALL 1/800-343-3627 or write Office of Continuing Medical Education HEALTH ONE CORPORATION 2810 57th Avenue North Minneapolis MN 55430 Only 4% clearly wanted to continue smoking. Twelve percent of the smokers contacted reported already quitting on their own. Similar quit rates are reported in the literature for control groups whose only intervention was filling out a questionnaire.⁷ In fact, 64% of all successful quitters have done so on their own.⁸

There remains a significant number of people, however, who need help to reach their goal of stopping smoking. The most successful programs simply provide firm, consistent, and repeated help and advice to stop smoking.⁴ Although this initial attempt was unsuccessful, the clinic remains committed to developing an efficient and effective method of encouraging smoking cessation in this challenging patient population.

Acknowledgment

This project was supported by the Ramsey Foundation, St Paul, Minnesota.

References

- Marcus AC, Shopland DR, Crane LA, Lynn WR: Prevalence of cigarette smoking in the United States: Estimates from the 1985 Current Population Survey. J Natl Cancer Inst 1989; 81:409–414
 Venters MH, Jacobs DR, Luepker RV, et al: Spouse concordance
- Venters MH, Jacobs DR, Luepker RV, et al: Spouse concordance of smoking patterns: The Minnesota Heart Survey. Am J Epidemiol 1984; 120:608–616
- Meryhew R, Hopfensperger J: East Side downside: Tradition, stability fall to change. Minneapolis Star Tribune 1989, June 4; p 1A, 17A
- Kottke TE, Battista RN, DeFriese GH, Brekke ML: Attributes of successful smoking cessation interventions in medical practice: A meta-analysis of 39 controlled trials. JAMA 1988; 259:2883–2889
- Centers for Disease Control. The Surgeon General's 1989 report on reducing the health consequences of smoking: 25 years of progress (executive summary). MMWR 1989; 38 (suppl S-2):viii–xiii
- David AK, Boldt JS: A study of preventive health attitudes and behaviors in a family practice setting. J Fam Pract 1980; 11:77–84
 Stewart PJ, Rosser WW: The impact of routine advice on smoking
- Stewart PJ, Rosser WW: The impact of routine advice on smoking cessation from family physicians. Can Med Assoc J 1982; 126: 1051–1054
- Health and Public Policy Committee, American College of Physicians: Methods for stopping cigarette smoking. Ann Intern Med 1986; 105:281–291