Developing Health Education Programs for Health Promotion: Development of a Training Guide on Prevention of Smoking and Excessive Drinking

Bae, Kyunghee and Nam, Jungja

Contents

1. Abstract
2. Introduction
3. Theoretical Background
4. Goals
5. Target Audience
6. Developing the Intervention
7. Intervention Activities
8. Material Development
   Organization,
   Making Content Vivid and Persuasive
   Video Component
9. Evaluation
10. Discussion

Abstract

Background: Alcohol and tobacco use are two major behavioral risk factors implicated in increased morbidity and mortality. Since both substances are widely used in Korea, a concerted effort is currently underway to reduce the use of tobacco and alcohol in Korea.

Objectives: Efforts directed toward educating health promotion planners and health educators from local health departments to organize and implement health education programs to reduce the proportion of people smoking and excessive drinking in the community.

Methods: A training guide on prevention of smoking and excessive drinking has been developed. Comprehensive multi-media health promotion materials were developed based on health behavior theories and strategies for effective health behavioral interventions. To better control of behavioral risk and promote health enhancement, the materials were

developed to introduce a user-oriented developmental approach by making messages more persuasive and organizing content in a user-friendly manner. Sections of the report explain theoretical background of the intervention, choosing goals and a target population, specific program activities to include in an intervention, development, organization, methods of making program content vivid and persuasive, and evaluation,. Implications for Practitioners: The process followed in developing the health intervention materials is described in detail to assist practitioners who need to develop effective programs to reduce the use of tobacco and excessive alcohol. Health educators from all local health departments in the country were trained in the use of the materials, to enable them to develop community interventions to reduce smoking and excessive drinking.*Keywords: health promotion, health education, smoking, excessive drinking, Korea, educational materials, health intervention materials, educational video*

Introduction

Historically, as living conditions improved and advances were made in sanitation, immunization, and medicine, deaths from infectious diseases gradually decreased. Chronic diseases then became the leading causes of death. Accordingly, attention has been paid to preventing behavior-related diseases and to encouraging behavior and lifestyle changes at an individual and community level. Unhealthy behaviors are the most common cause of premature death. In the United States, it is estimated that about 50% of all deaths before age 75 are caused by unhealthy behaviors, 20% by environmental factors, 20% by biological factors, and 10% by inadequacies in the health care system (McKenzie and Smeltzer, 1997)

Lifestyle-related diseases, principally cardiovascular diseases and neoplasms, are leading causes of death in both developed and developing countries (Khor, 1997). Major lifestyle risk factors are exercise (Paffenbarger et al., 1984; Powell et al., 1987), diet (Amler and Dull, 1987; Eckersley, 2001; Jeffery, 1996; Must, 1996; U.S. Surgeon General, 1988a), smoking (Amler and Dull, 1987; Skurnik and Shoenfeld, 1998; U.S. Surgeon General, 1989) and alcohol consumption (Adams et al., 1993; Burge and Schneider, 1999; Rankin and Ashley, 1992; U.S. D.H.H.S., 1991). Better control of these behavioral risk factors alone could prevent between 40 and 70% of all premature deaths, one-third of all acute disabilities, and two-thirds of chronic disabilities (USDHHS, 1990).

These are aspects of *health behavior*, behaviors that impact a person's health, and their importance cannot be overemphasized. Systematically planned health promotion programs are based on the combination of educational and environmental supports for actions and conditions of living conducive to health (Green and Kreuter, 1991). In this context, *environmental* refers to social, political, organizational, policy, economic, and regulatory circumstances bearing on health, while *educational* refers to health education or teaching efforts. Health promotion is a broad term encompassing health education but also vaccination programs and health-related research, while health education is an important didactic component of health promotion.

Health educators are trained professionals who work to promote good health by teaching people how to take care of their health. Health departments commonly employ health educators to act as liaisons between their missions to monitor and safeguard the public health and the individual members of the community. The need for health educators as well as the need to provide quality health promotion programs grew out of local health department activities in Korea. The role of health educators in local health departments in Korea has expanded over the years, such that they are now involved in all aspects of health promotion programs. The role of the health educator in developing a health education program for prevention of smoking and excessive drinking is demonstrated in the discussion, which follows. In brief, the health educator is responsible for putting together a program that is suited to his/her community and for disseminating the assembled information to his/her community members who need it. It is also often desirable for the health educator to assess the state of health in his/her community prior to the intervention and to do so again after the intervention. These assessments provide a means to evaluate the impact of the intervention on the community.

A major health promotion effort on the subject of preventing smoking and excessive drinking is underway throughout Korea. All health educators and health planners from local health departments completed a two-day long training program in the summer of 2001. A new intervention guide aimed at a broad spectrum of cigarette smokers and drinkers was developed for their use, providing them with the tools to create an effective community intervention effort they could take home with them. The training materials included both written and video media. The training guide and video were developed for the training sessions for the health educators, but they also will serve as components of community-based interventions. The goal of the training sessions was to prepare health

educators in Korea to organize and implement community-wide interventions to reduce smoking and excessive drinking. A report on the training program process and on the results of the training program is in preparation.

The intent of this article is to describe a user-oriented process for the development of health education materials including a manual and a video, which can serve as components of a community effort to reduce cigarette and alcohol use. This process includes examining the theoretical framework for the intervention, selection of the target audience and media, the development of content which is both theoretically and empirically informed, the presentation of this content in a manner that is vivid and persuasive, and the organization of the content in a meaningful format. These steps constitute basic elements in developing health education programs and materials. The steps here include only the developmental phases. The purpose of this report is to describe the process used to design a new intervention guide. The guide is intended to be used by health educators to develop community interventions to prevent tobacco and excessive alcohol use. In the pages that follow, the author describes the contents of the intervention guide and the process of developing the guide. While many of the details refer to tobacco use, the same process is directly applicable to the development of alcohol use reduction materials. The utility of this user-oriented strategy and of the educational methodology is discussed.

Theoretical Background

Health promotion interventions have a much greater chance of achieving the desired outcome if they are planned using sound educational theories and models. Hochbaum et al. (1992, p. 298) defined theories in relationship to health education as tools to help health educators better understand what influences health-relevant individuals, group, and institutional behaviors -- and to thereupon plan effective interventions directed at health-beneficial results. Successful health promotion interventions should be planned and evaluated based upon well-established theories.

An approach based on theory provides direction and justification for program activities and serves as a basis for processes that are to be incorporated into the health promotion program (Cowdery et al., 1995). To give planners structure and organization during the programming process, conceptual diagrams may be used. Refer to the diagrams that have been developed on prevention of smoking and excessive drinking based on the theoretical

perspectives relevant to behavior change interventions (KIHASA, 2000, p. 19 & p. 75).

In particular, following the Transtheoretical Model ("TM", Prochaska & DiClemente, 1986; DiClemente, 1991), smoking intervention was designed to emphasize that people change behavior by moving through a sequence of Stages of Change. The stages range from Precontemplation (not thinking about smoking cessation in the next six months), to Contemplation (seriously considering about change in the next six months), to Preparation (actively planning change), to Action (in the active process of quitting), to Maintenance (taking steps to sustain change and resist temptation to relapse), and sometimes, unfortunately, to Relapse (going back to regular smoking). Movement through these stages may be a function of different psychosocial influences. The most exciting aspect of the theory is that it leads directly to interventions: an intervention may be planned that helps someone move from any given stage to the next.

TM involves ten psychological processes of change that move people through the stages; some processes are important for movement from one particular stage to another while others are non-specific (Prochaska and DiClemente, 1992). Ten processes of change were expected to receive differential emphases during particular stages of change. Prochaska and DiClemente found that self-changers: (a) use the fewest processes of change during precontemplation; (b) emphasize consciousness-raising during the contemplation stage; (c) emphasize self-reevaluation in both contemplation and action stages; (d) emphasize self-liberation, a helping relationship, and reinforcement management during the action stage; and (e) use counter-conditioning and stimulus control the most in both action and maintenance stages (Prochaska and DiClemente, 1983). Relapsers were found to respond in a manner between that of contemplators and people in action (Prochaska and DiClemente, 1983). Other useful elements of TM comprise decisional balance (the balance of the pros and cons of smoking), self-efficacy (the degree of confidence in oneself to accomplish the change to non-smoking or to remain a non-smoker), and temptations (to smoke).

For the health educator, understanding the Stages of Change is important. The ten processes of change constitute both overt and covert techniques that work together to modify problem behaviors. Feedback, together with helpful strategies for increasing confidence, resisting temptation, and thinking about their smoking as a problem they can overcome, can help an individual progress to the next stage of change. This influential model was incorporated into the present smoking cessation study and also applied to the

problem of excessive drinking.

Other theories and models also provided some of the framework for the development of the intervention guide. Social Cognitive Theory (SCT), the Cognitive-Behavioral Model of the relapse process (CBM), and the Health Belief Model (HBM) were also applied to create a comprehensive behavior change intervention. The main constructs that were helpful in the development process were vicarious experience, modeling, self-management, self-efficacy, expectations, behavioral capability, emotional coping response from SCT, self-control strategies, high-risk situations, specific intervention strategies from CBM, and perceived risk, susceptibility, seriousness, benefits, barriers, and cues to action from HBM. The interventions are thus informed by both intrapersonal models (TM, HBM, CBM) and an interpersonal model (SCT).

In addition, the community-level approach was also an essential part of the intervention effort for the development of the present guide. Glanz and Rimer (1995) grouped institutional, community, and public policy levels into a single level referred to as community. For the community-level efforts for preventing smoking and excessive drinking, participants were exposed to presentations from the local health planners with their local experiences. The intervention guide helps planners adequately synthesize and integrate the theories and models to fit their particular situation, to address all components of the problem. The weight of evidence suggests that a combination of interventions is superior to single strategy approaches (Green and Kreuter, 1991). Therefore, the present intervention guide is designed using a *multistrategy* approach.

Also, the work of health promotion should be approached through the *ecological perspective* (McLeroy et al. 1988). The ecological perspective postulates macro and micro levels of action. Interventions can be planned and implemented for a group of people (macro) or can be aimed at a specific individual (micro). For example, health messages can be planned for public service announcements in the mass media (television, radio, or newspapers) aimed at large groups of people; that would be a macro intervention. In addition, an individually prescribed smoking cessation program for suspended high school students can be selected; even though those individuals may meet in a group, the intervention is still aimed at specific individuals and so is a micro intervention. The two levels of activity work together to reinforce each other, thereby obtaining an optimal result.

The concept of using both micro and macro interventions is explained fully in the

intervention guide, so that health promotion planners and health educators in local health departments can attack on multiple levels in their community. Based on their past experiences, available resources, and the demographic characteristics of their target population, health educators can choose options and ideas from the guide that will work best in their community. Whether their intervention is aimed at specific individuals or at groups, it is hoped they can plan and implement effective and efficient ways to intervene in the community with behavior change efforts for smoking and excessive drinking.

Goals

The overall goal of the present intervention was two-fold: 1) to teach health educators from local health departments about successful interventions to reduce tobacco and excessive alcohol use, and 2) to reduce the proportion of people smoking and excessive drinking in the target community. The materials used in achieving the first goal were developed so as to be useful for subsequent efforts directed toward the second goal. Since each community has its own needs that must be addressed, there is no one best way of intervening to accomplish a specific program goal that can be generalized to all target populations. It is the job of the health educator to assess the needs and resources of his particular community so as to develop appropriate goals and objectives for the health intervention. TM proposes that individuals move through a series of stages in behavior change. The content of the lessons was developed to give tailored information about what stage they were in and what to do to move to the next stage. Therefore, another possible, intermediary goal could be to move participants along to the next stage of change, even if a change in smoking/drinking behavior is not accomplished.

Target Audience

Although the present guide mainly targeted adult smokers as comprising the largest number of heavy smokers, the guide also includes materials intended for other audiences in communities as well (e.g., young adolescents). For example, the guide contains a mass media message by a popular singer who has been successful in changing smoking behavior by serving as a role model to provide motivation and reinforcement to adolescents for making this behavior change.

Limited resources often mean that the health educator must select a specific target audience for his health promotion programs. Also, messages aimed at specific audiences can be designed to address motivation, skills and barriers as well as predisposing factors unique to a defined target group. The long-term health promotion strategy would then include generic smoking prevention programs supplemented with smaller, more specific, inserts aimed at difficult-to-reach subgroups of smokers/drinkers.

Developing the Intervention

Smoking cessation is an extremely difficult process requiring complex and time-consuming strategies. Problems of over-simplification may result from a lack of appreciation of the difficulty cessation poses for most smokers. It now seems clear that simple health-related messages to quit by themselves have little effect on smokers. Smoking cessation materials delivering these messages or offering a few tips on quitting can be expected to have minimal impact. It is also important to acknowledge that interventions should focus primarily on the behavior of the smokers (self-help materials appropriate for many smokers), combining approaches directed at the smoker himself, and at the smoker's social context. The guiding idea of this project is that intervention programs should be targeted at enhancing a person's ability to make behavioral changes by creating a supportive environment.

With this in mind, attention focused on self-help strategies for quitting smoking when the guide was being developed. Self-help strategies are attractive principally because the vast majority of individuals who quit smoking do so on their own (Prochaska and DiClemente, 1983), but later than is healthy. The rationale for self-help materials as a component of smoking cessation interventions has been presented elsewhere (Strecher, 1983; Strecher et al., 1989). While clinic programs often have high recidivism rates as well as high initial cessation rates (Hunt and Bespalec, 1974), printed self-help materials have demonstrated gradually increasing quit rates over time (Davis et al., 1984).

To accomplish the task of gathering self-help strategies, the research literature and smoking prevention programs were reviewed. Newspaper and magazine articles, pictures, posters, essays and videotapes were also collected. The content of the lessons, worksheets, and pictures to lead the discussion were creatively developed from generally available teaching materials. In addition, the educational video was created based on comments

from focus groups and was pretested with convenience samples. A similar plan was followed in developing the material to reduce excessive drinking. More emphasis was put on the drinkers' social context by creating a supportive environment.

In developing this manual, suggestions were incorporated from reviewers, colleagues, and health educators whenever possible. Several meetings were conducted to generate ideas for the content and style of the guide and to gather feedback on proposed ideas for the guide. Following this iterative developmental process is recommended to health educators when they set about developing their own interventions.

Intervention Activities

The health intervention guide includes a large array of activities that may be incorporated into a community intervention. A multiple-activity intervention has the following advantages: (1) hitting the target population with a message in a variety ways; (2) appealing to a variety of learning styles within the target population; and (3) appealing to the various senses (such as sight, hearing, and touch) in the target population, the hope being that at least one activity is sufficiently appealing to help bring about the desired outcome. Although an intervention can consist of a single activity, it is more common for planners to use a variety of activities to make up an intervention program. Please refer to Table 1 for suggested types of intervention activities that are presented in the manual.

Table 1. Types of Intervention Activities

Intervention Activities	**Educational Methods used in the Guide**
Educational Activities	Guest speakers, small group discussion, role-play, audiovisual materials, written materials
Behavior Modification Activities	Diaries, logs, or journals to be kept by individuals for a specified period of time documenting the behavior they want to alter
Environmental Change Activities	No smoking signs, elimination of ash trays, signs on public telephones
Regulatory Activities	Warning labels, non-smoking taxis, a company policy against smoking in corporate offices and company-owned vehicles, a no-alcohol policy on a college campus
Community Advocacy Activities	Lobbying, letter-writing campaigns
Organizational Culture Activities	Case examples of resisting co-worker pressure, norms and traditions generated by a community of people, e.g., a supportive decision-maker
Communication Activities	Mass media (both electronic and print) analyses, newspaper and magazine articles, newsletters, pamphlets, posters, videotapes, booklets
Economic and Other Incentives	Incentives tailored to the participants, e.g., surcharges, fines, taxes, prohibiting use
Health Status Evaluation Activities	Professional health checkups and examinations
Social Intervention Activities	Buddy Watch (competition, contract), social support from coworkers, social networks, AA

Material Development

Organization: The intervention manual developed for smokers lays out all the steps of a comprehensive smoking cessation program. A new strategy developed for this study is a modular design with chapters organized around the stages of smoking cessation. Dividing a guide into chapters reflecting stages of behavior change is, in effect, a form of market segmentation. In this case, rather basic steps of the behavior change process are segmented so that each chapter has the greatest relevance to the people who need it most. Smokers who undertake a cursory examination of the guide will find relevant content grouped together. Progress through the Stages of Change should then occur by following the guide. Table 2 shows a chapter-by-chapter summary of the new guide, including the stage of behavior being targeted, the purpose of the chapter, and the strategies employed. Health educators are encouraged to select any or all chapters of the guide, which apply most to their needs.

As Table 2 indicates, the guide was designed to influence lifestyle habits, personal choices, circumstances, and social structure. The program increases public knowledge of the consequences of cigarette smoking, promotes healthier attitudes, and motivates smokers to quit, involving families and peers in the tobacco cessation process. Also, information on smoking-control policies and regulations such as limiting or restricting smoking or requiring strong warning labels was included. In addition, the guide includes a number of exercises designed for acceptability to smokers to identify why they smoke, why they should quit, how to cope with quitting, how to set quit goals, how to track smoking through diaries, how to refuse offers of a cigarette, how to reward oneself for quitting, how to help others to quit, how to identify nicotine-dependent smokers, where to go for additional support and how to deal with relapses. Underlying causes of smoking and group support issues were examined to prepare participants for the possibility of a relapse period.

To aid the quitter, self-help techniques, rehearsal, motivation and persuasion by case histories of successful quitters, role-play, and a practical (participatory) learning technique were utilized. Lengthy written tasks and recording demands were avoided in an attempt to reach smokers with less formal education. The intervention guide for excessive drinkers is similar in structure to that for smokers.

Making Content Vivid and Persuasive: The size of type, the text and the graphic design and layout were appropriately selected in designing the guide and serve as an example for health intervention materials that health educators may want to develop themselves.

Text was divided into short pieces, so that the reader is not overwhelmed. Segments explained some of the possible barriers in the behavioral change process. Then the text of the manual strove to stimulate further consideration of a particular strategy and provide the motivation to make a personal decision and commitment to action. For example, rather than explaining all possible coping strategies for withdrawal symptoms, a few strategies can be presented that other smokers have used successfully. This allows the reader the freedom to use the strategies presented and/or to develop similar strategies for oneself.

Individuals using printed self-help materials begin by examining pictures or illustrations that look interesting, then proceed to read a caption or title associated with the picture, and if still interested, read text associated with the picture and caption (Strecher et al., 1989). With the audience and a general package design in mind, the message was presented with an emphasis on enhancing vividness and persuasiveness. Vivid information is likely to attract and hold the attention and to excite the imagination to the extent that it is emotionally interesting, concrete and imagery-provoking, and proximate in a sensory, temporal, or spatial way (Nisbett and Ross, 1980). Taylor and Thompson (1982) conclude that while vividness is difficult to influence through general factual information, case histories appear to be consistently more persuasive. They suggest that individuals may more readily understand the causal relevance of case history information than dry, statistical information. The guide portrayed a message through case histories by guest speakers and pictorial presentation.

User-oriented strategies and participatory learning strategies are emphasized, to access the needs and preferences of intended users and to correct possible communication failures. Among the contributions of these approaches were: (1) recognition that a broad-spectrum magazine style format is appropriate, (2) use of a modular approach that emphasizes user freedom, stage-appropriate information, and decision-making, (3) use of a vivid, graphic design, (4) mini-case examples and vignettes in lieu of more didactic methods, and (5) specific action instructions for enhancing maintenance success. In general, participants in the training sessions preferred strong, vibrant colors, and they found the family theme of

the guide very appealing.

Video component: During the development of the educational program for the health educators, a video was specially produced as well as the intervention guide. According to Oakley et al. (1995), research findings suggest a need to move away from the traditional individualistic model of health education to an approach which takes into account the way in which children's and young people's health behavior is affected by the circumstances of their lives, many of which are beyond their individual control. In their study, although knowledge was considerable, there was little to suggest that this was a result of health education directly; television and other mass media were the most important sources of information.

To analyze the media effect on smoking and drinking behaviors, the video was produced in several stages. Based on research into previous intervention formats, videotape was selected as a suitable and appealing format for a communication channel. The next stage consisted of collecting, editing, and developing the material for the content of the video. The video was created from collections of a variety of smoking scenes and drinking scenes on television. More specifically, smoking and drinking scenes from drama, movie, music video, comedy, news, and commercial advertisements had been captured over a six-week period (4/25 to 6/5) from broadcasting stations: i.e., MBC, KBS1, KBS2, SBS and cable channels (OCN, Dramanet, m.net). As a result, twenty videotapes (averaging 15 minutes long) were reviewed and edited. After compiling, two videotapes, Drinking scenes on TV (38 minutes long) and Smoking scenes on TV (15 minutes long), resulted. Based on feedback from convenience samples that consented to review the tapes, the tapes were edited to shorter lengths. Finally, the educational videos for smoking (8 min.) and drinking (20 min.) were produced.

In summary, the video highlighted these messages: 1) a person, especially a young adolescent, can learn about smoking and drinking from observing media-based role models, 2) there are cultural inputs on drinking and smoking, and 3) there is a strong marketing force behind commercial advertisements for alcohol.

From SLT, the concept of observational learning (vicarious experience) of smoking and drinking was addressed in the video. When an observer watches the actions of another person, observational learning occurs. A person learns that certain events are likely to occur in a particular situation and then expects them to occur when the situation arises

again. The video was created to disseminate the information that a young adolescent learns that smoking and/or drinking can be fun, exciting, grown-up, even sexy from advertising or from role models on TV. Media modeling with social reinforcement addresses a society's experience with alcohol and tobacco; understanding the culture's current beliefs and practices can help to diffuse their persuasive powers.

Also, the video provides visual information about a culture's impact on drinking and smoking. A cultural norm of social drinking (i.e., multiple rounding of drinking places, the custom of passing glasses around) was demonstrated. Additionally, the video drew attention to the alcohol industry's efforts to market to youth and to conceal the truth about the health effects of alcohol and its addictive nature. Small group discussion after viewing the videos provided an opportunity for participants to raise their concerns regarding media content and messages.

It was found that the effectiveness of the videotape as a teaching tool lay in its ability to increase awareness of the adverse effects of media. Educating the individual about the influence of media on the attitudes toward cigarette smoking and alcohol drinking is an important aspect of a health education program.

Evaluation

Although evaluation may be the last stage completed in an intervention, it should be one of the first stages developed. The evaluation of an intervention should yield sufficient information to permit analysis of the impact of the intervention. In order to accomplish this, it is necessary to have measures of the status of the community prior to the intervention. A survey is usually used to assess the status of the community before and after an intervention. The survey may be made by telephoning a random sample of community residents, for example. The material covered by the survey must be chosen to answer the question, "Did the intervention cause an improvement in the community's health?" In the current example, it would be desirable to know what percentage of the people in the community smoke, how much they smoke, and what intentions, if any, they have to quit smoking. Similar questions would assess the status of alcohol consumption in the community. After the intervention, a follow-up survey would ask the same questions, thus permitting comparison of responses.

The quantitative survey method of evaluation outlined above is only one possible

approach. A qualitative assessment was used as part of the evaluation plan during the training program. The qualitative assessment consisted of a review by expert panels from different settings, including the community, a university, non-government organizations, and local health departments. The text of the program development guide was subjected to scientific review and draft copies of the guide were reviewed. The authors collected information on reactions to the guide (e.g., overall look, attractiveness, thoroughness, and so on). The majority of respondents had positive reactions to the guide. In responses to open-ended questions asking what they thought of the guide, it was mentioned that the guide was user friendly and magazine-like as a positive feature. Also, it was noted that the guide was fun, interesting, and enjoyable, well put together and comprehensive. Every chapter of the guide was mentioned as being liked.

Information was also gathered on the participants' reaction to the training sessions. In responses to open-ended questions asking which parts of the training sessions respondents liked and did not like, widely varying responses were found. Respondents mostly liked the participatory small group discussion (worksheet). Although one person remarked that it was embarrassing and ineffective, others noted the small group discussion as what they liked the most. Next best liked was the media analysis using the video. When asked whether they would incorporate the new methods presented into their local programming, many of the participants reported intentions to plan prevention programs. There were fewer negative than positive remarks. The negative reactions were related to the long hours of training, short breaks, and educational environment.

To summarize the qualitative results, readers were enthusiastic about the new guide. Comments such as comforting manual, educational but not overbearing, and an excellent tool suggest that the goal of creating an informative but upbeat, engaging guide has been accomplished. The full evaluation remains to be done, but these preliminary results are promising.

Discussion

There is clear evidence that current smokers are increasingly those populations that, in the past, have not yet been reached by self-help materials. Printed self-help materials have the greatest potential for reaching the widest audience of smokers in the most settings at the least cost with the greatest acceptability. By making messages more persuasive and

organizing content in a user-friendly manner, our goal was to introduce a user-oriented developmental approach.

Local health departments need to set realistic expectations for the residents in their communities. Not every smoker seriously considers giving up tobacco, so even moving people toward contemplating quitting is a step forward. Preliminary results from the pilot project were encouraging. Health educators trained with this guide appeared to appreciate the skills and direction they gained from the program, but the important question is whether they will use them successfully in their communities. The development of a health education strategy for the target audience and the selection of proper educational materials are important as well. Future research is needed to determine the extent to which interventions to reduce tobacco and alcohol use in Korea are mounted, to discover the types of intervention programs local health departments choose to present, and ultimately to determine the extent to which these programs are successful.

References

Adams, W. L., Yuan, Z., Barboriak, J. J., & Rimm, A. A. (1993). Alcohol-related hospitalizations of elderly people: Prevalence and geographic variation in the United States. *JAMA*, 270(10), 1222-5.

Amler, R.W., and H.B. Dull, eds. 1987. Closing the gap: The burden of unnecessary illness. *Am H Prevent Med* , 3 (sup 5).

Aveyard P. Cheng KK. Almond J. Sherratt E. Lancashire R. Lawrence T. Griffin C. Evans O. (1999). Cluster randomised controlled trial of expert system based on the transtheoretical ("stages of change") model for smoking prevention and cessation in schools. [see comments]. *BMJ* 319(7215):948-53.

Burge S.K. and Schneider F.D. (1999). Alcohol-related problems: recognition and intervention. *Am Fam Physician.* 15;59(2):361-70, 372.

Cowdery, J. E., Wang M. Q., Eddy, J. M., & Trucks, J. K. (1995). A theory driven health promotion program in a university setting. *Journal of Health Education*, 26 (4), 248-250.

Davidson R. (1992). Prochaska and DiClemente's model of change: a case study? *Br J Addict.*. 87:821-2.

Davis, A.L. Faust R. Ordentlich M. (1984). Self-help smoking cessation and maintenance programs: A comparative study with 12-month follow-up by the American Lung Association. *Am J Public Health* 74:1212-1217.

DiClemente, C. C. (1991). *Motivational interviewing and the stages of change.* In: W. R. Miller, & S. Rollnick Motivational Interviewing: Preparing People to Change Addictive Behavior (pp. 191-202). New York: The Guilford Press.

Eckersley R.M. (2001). Losing the battle of the bulge: causes and consequences of increasing obesity. *Med J Aust.* 174(11):590-2.

Glanz, K., & Rimer, B. K. (1995). *Theory at a glance: A guide for health promotion practice* [NIH Pub. No 95-3896]. Washington, DC: National Cancer Institute.

Green, L. W., and Kreuter, M. W. (1991). *Health Promotion Planning: An Educational and Environmental Approach* (2nd ed.). Mountain View, CA: Mayfield.

Hochbaum, G. M., Sorenson, J. R., & Lorig, K. (1992). Theory in health education practice. *Health Education Quarterly.* 19(3), 295-313.

Hunt, W. A. and Bespalec D. A. (1974). An evaluation of current methods of modifying smoking behavior. *Journal of Clinical Psychology* 30:431-438.

Jeffery, R.W. (1996). Does weight cycling present a health risk? *Am J Clin Nutr.* 63(3 Suppl):452S-455S

Khor, G. L. (1997). Nutrition and cardiovascular disease: an Asia Pacific perspective. *Asia Pacific Journal of Clinical Nutrition.* 6(2): 122-142.

Korean Institute of Health and Social Affairs (KIHASA). (2000). *Training Guide on Prevention of Smoking and Excessive Drinking.* Seoul: Lanscom.

Mckenzie, JF and Smeltzer J.L. (1997). *Planning, Implementing, and Evaluating Health Promotion Programs.* MA: Allyn & Bacon

McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly*, 15, 351-377.

Must A. (1996). Morbidity and mortality associated with elevated body weight in children and adolescents. *Am J Clin Nutr.* 63(3 Suppl):445S-447S.

Nisbett R, and Ross L. (1980). *Human Inference: Strategies and Shortcomings of Social Judgement.* Englewood Cliffs., Prentice-Hall.

Oakley A. Bendelow G. Barnes J. Buchanan M. Husain OA. (1995). Health and cancer prevention: knowledge and beliefs of children and young people. [erratum appears in BMJ 1995 May 13;310(6989):1231]. *BMJ.* 310(6986):1029-33, 1995 Apr 22.

Paffenbarger, R.S., Jr., R.T. Hine, A.L. Wing, and C.H. Steinman. (1984). A natural history of exercise in cardiovascular health. *JAMA.* 252: 491-95.

Platt S. Tannahill A. Watson J. Fraser E. (1997). Effectiveness of antismoking telephone helpline: follow up survey. *BMJ.* 314(7091):1371-5.

Powell, A.E., P.D. Thompson, C.J. Casperson, and J.S. Kendrick. 1987. Physical activity in the incidence of coronary health disease. *Ann Review Pub Health* 8:253-87.

Prochaska, J. O., & DiClemente, C. C. (1983). Stages and Processes of Self-Change of Smoking: Toward An Integrative Model of Change. *Journal of Consulting and Clinical Psychology.* 51 (3): 390-395.

Prochaska, J. O., & DiClemente, C. C. (1986). Toward a comprehensive model of change. W. R. Miller, & N. Heather (editors), *Treating Addictive Behaviors: Processes of Change* (pp. 3-27). New York: Plenum Press.

Prochaska JO, Diclemente CC, Norcross JC. (1992). In search of how people change. Applications to addictive behaviors. *Am Psychol.* 47:1102-14.

Prochaska JO, Velicer WF, Diclemente CC, Fava J. (1988). Measuring processes of change: applications to the cessation of smoking. *J Consult Clin Psychol.* 56:520-8.

Prochaska JO, Velicer WF, Rossi JS, Goldstein MG, Marcus BH, Rakowski W, et al. (1994). Stages of change and decisional balance for 12 problem behaviors. *Health Psychol.* 13:39-46.

Rankin, J.G., and M.J. Ashley. (1992). Alcohol related problems. In *Maxcy-Rosenau-Last public Health and Preventive Mdicine.* 13th ed., edited by J.E. Last and R.B. Wallace. Norwalk, CT: Appleton-Lange, p. 741-68.

Strecher, V. J. (1983). A minimal-contact smoking cessation program in a health care setting. *Public Health Report* 98: 497-502.

Strecher, V.J., Rimer B. K. and Karen D.M. (1989). Development of a New Self-Help Guide Freedom From Smoking For You And Your Family. *Health Education Quarterly.* 16(1): 101-112.

Skurnik Y. and Shoenfeld Y. (1998). Health effects of cigarette smoking. *Clin Dermatol* 16(5):545-56

Taylor, S.E., and Thompson S.C. (1982). Stalking the elusive vividness effect. *Psychol Rev.* 89: 155-181.

U.S. Department of Health and Human Services, (USDHHS). 1990. *Prevention '89/'90.*

Washington, DC: U.S. Government Printing Office.

U.S. Department of Health and Human Services (USDHHS), Public Health Service 1991. *Healthy people 2000: National health promotion and disease prevention objectives.* Publication #s (PHS) 91-50212 and (PHS) 91-50213. Washington, DC: U.S. Government Printing Office.

U.S. Surgeon General. (1988). *The Surgeon General's report on nutrition and health.* Washington, DC: U.S. Public Health Service, Department of Health and Human Services.

U.S. Surgeon General. (1989). *Reducing the health consequences of smoking:25 years of progress.* Report of the Surgeon General. Washington, DC: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Chronic Disease Control, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. D.H.H.S. Publication #(CDC) 89-8411.

Velicer WF, Diclemente CC, Rossi JS, Prochaska JO. (1990). Relapse situations and self-efficacy: an integrative model. *Addict Behav.* 15:271-83.

Velicer W, Norman GJ, Fava JL, Prochaska JO. (1999). Testing 40 predictions from the transtheoretical model. *Addict Behav.* 24:455-69.

Velicer WF, Rossi JS, Diclemente CC, Prochaska JO. (1996). A criterion measurement model for health behavior change. *Addict Behav.* 21:555-84.

Werch, C. E. (1990). Behavioral self-control strategies for deliberately limiting drinking among college students. *Addictive Behaviors*, 15(2), 119-128.

건강증진사업을 위한 보건교육프로그램 개발 : 금연, 절주교육을 중심으로

한국 보건사회연구원 책임 연구원
Research Triangle Institute (NC, USA), Research Associate
배 경 희

한국 보건사회연구원 부연구위원
남 정 자

1. 배경

흡연과 음주는 질병발생과 사망률을 증가시키는 주요 행동 위험요인(behavioral risk factors)이다. 그럼에도, 우리나라는 남성 흡연율, 청소년 흡연율, 음주가 위험요인인 간질환 사망률이 세계에서 가장 높다. 최근 금연과 절주사업의 효율적 추진을 위한 전국 보건소의 건강증진사업 관리자 및 담당자를 위한 교육훈련이 실시되었다.

2. 목적

이 연구의 목적은 금연.절주 교육 훈련프로그램을 위한 훈련자 지침서를 개발하는데 있다.

3. 방법

흡연과 과음의 효과적인 행동적 중재를 위하여, 건강행동 이론과 보건 교육의 전략에 기초하여 포괄적인 건강증진 다중매체 자료 (multi-media health promotion materials) 들을 사용자 중심으로 개발하였다. 이 글은 건강 생활 습관을 개선하고 행태 변화 유도를 위한 보건교육 전략들을 소개하고자, 훈련 지침서와 교육자료의 개발 과정이 사용자 중심의 과정으로 쓰여졌다. 보건교육전략의 계획으로 1) 프로그램대상

과 목표의 설정, 2) 이론에 근거한 보건교육 프로그램 개발, 3) 종합적 보건교육전략 개발, 4) 교육 내용과 접근 방법 개발, 5) 교육 매체와 채널 개발, 6) 보건교육 자료선택 및 제작 7) 평가등의 과정을 소개한다.

4. 의의

개발된 보건교육 자료는 보건소의 건강증진사업을 위한 금연 및 절주 프로그램에 이용할 수 있다. 지역주민의 건강향상을 위하여 흡연과 과음의 효과적인 중재에 도움을 줄 것이다.