

*Nancy H. Corby, PhD
Susan M. Enguídanos
Linda S. Kay, MPH*

Dr. Corby is Adjunct Professor of Psychology at California State University, Long Beach (CSULB), and Associate Director of the Center for Behavioral Research and Services (CBRS) at CSULB. She served as Principal Investigator for this project and as Research Consultant for the Long Beach, CA, Department of Health and Human Services. Ms. Enguídanos was the AIDS Community Demonstration Project Intervention Manager for CBRS. Ms. Kay is a Public Health Analyst in the Behavioral Intervention Research Branch, Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, Centers for Disease Control and Prevention (CDC).

This study was funded by CDC through the Long Beach, CA, Department of Health and Human Services. The study was conducted by the Center for Behavioral Research and Services at California State University, Long Beach.

Tearsheet requests should be sent to Dr. Corby at CSULB, Center for Behavioral Research and Services, 1407 East Fourth Street, Long Beach, CA 90802.

Development and Use of Role Model Stories in a Community Level HIV Risk Reduction Intervention

SYNOPSIS

A THEORY-BASED HIV PREVENTION INTERVENTION was implemented as part of a five-city AIDS Community Demonstration Project for the development and testing of a community-level intervention to reduce AIDS risk among historically underserved groups. This intervention employed written material containing stories of risk-reducing experiences of members of the priority populations, in this case, injecting drug users, their female sex partners, and female sex workers. These materials were distributed to members of these populations by their peers, volunteers from the population who were trained to deliver social reinforcement for interest in personal risk reduction and the materials. The participation of the priority populations in the development and implementation of the intervention was designed to increase the credibility of the intervention and the acceptance of the message. The techniques involved in developing role-model stories are described in this paper.

Employment of psychological theory and research findings in a systematic fashion is proving to be useful in achieving health and social behavior-change goals (1). The use of role models in behavior-change efforts is an example of a well researched, theoretically based strategy that has demonstrated its utility in a range of situations, including smoking cessation (2), reduction of speeding among automobile drivers (3), and energy conservation (4). The concept and use of role models is a key element in Bandura's social cognitive learning theory (5, 6). In the intervention described in this article, role models were employed to achieve goals related to other theoretical models of change. Viewing others in the process of adopting or receiving approval for a new behavior, for instance, may change one's subjective norms, beliefs, and attitudes about the behavior, strengthening one's intention to adopt the behavior, as described in the theory of reasoned action (7, 8). Role models may also enhance one's sense of being capable of the desired behavior by demonstrating, for instance, how to properly disinfect drug-injection equipment or initiate condom use with a sex partner, and they may illustrate the benefits of adopting a target behavior, thereby providing vicarious reinforcement for change (9, 10).

Even when modeled and reinforced, new practices do not become a consistent part of one's behavioral repertoire instantly; their adoption occurs gradually. Prochaska and his colleagues have described this process in the stage-of-change model (11, 12). In this model, individuals pass through five stages in the consistent adoption of a new behavior, from precontemplation (no intention to adopt the behavior), contemplation (considering adoption of the behavior), preparation (intention to adopt the behavior in the near future), action (initiating consistent practice of the behavior), to maintenance (consistent use for some defined period of time).

The community-level intervention implemented in the AIDS Community Demonstration Projects (13) brought these behavior-change theories together to prevent the acquisition or transmission of the human immunodeficiency virus (HIV) by moving people forward in the stages of change for adopting risk-reducing behaviors. A primary mechanism for precipitating the desired changes was the use of printed material depicting role models in various stages of adopting the goal behaviors (14). These role model stories were derived directly from members of at-risk populations in the community being served by the intervention. As a result, they were likely to convey a credibility and accuracy of experience greater than they would have if health, advertising, or other professionals had generated the stories.

In the Long Beach demonstration project, the use of peer volunteers to disseminate the published role-model stories was also designed to enhance credibility. Two or three stories illustrated with photographs of paid models similar in gender, ethnicity, and age to the characters in each story were published in small flyers. Occasionally the photo novela or comic strip style of presentation was employed. Other information of interest to the intended audience was also contained in the publications, including referrals for free HIV testing, immunizations for children, food and clothing banks, and local activities. The flyers were packaged with condoms and (for those flyers targeting injecting drug users) small bottles of bleach and water, alcohol wipes, and cotton balls. Instructions for the use of the bleach were printed on the bottles. Directions for use of condoms were enclosed in the packet. Volunteers from the same populations as the intended audiences for these materials were recruited and trained to distribute the materials to their associates, providing verbal reinforcement for interest in and willingness to view the material.

The populations on which the Long Beach project focused its community-level intervention were injecting drug users, their female sex partners, and female sex workers. Target behaviors for persons who are sexually active were consistent condom use during vaginal or anal sexual intercourse with main sex partners and with other (all non-main) sex partners. For drug injectors who shared injection equipment (theirs or someone else's), the target behavior was the consistent use of bleach to disinfect that injection equipment.

These role model stories were derived directly from members of at-risk populations in the community being served by the intervention. As a result, they were likely to convey a credibility and accuracy of experience greater than they would have if health, advertising, or other professionals had generated the stories.

Development of Role Model Stories

The purpose of a role model story is to relate the experience of a member of a priority population in changing a designated behavior in such a manner that another member of the same population can identify with the story and begin to change his or her perceptions, beliefs, or attitudes to facilitate a similar behavior change. There are six main steps in the development of a role model story: (a) specifying populations and behaviors of interest, (b) identifying a potential role model to interview, (c) conducting the interview, (d) writing the story, (e) reviewing, testing, and revising the story, and (f) publishing the flyer.

Specifying populations and behaviors. Not only must a target behavior be specific with regard to its outcome (for example, seeking HIV testing, returning for test results, avoiding sharing, and obtaining and using bleach, new injection equipment, or condoms), it must be specific about the context in which it occurs (for example, at the health department or a service center for gay men; with injecting associates or primary sharing buddy; with main sex partner, casual, or paying partners; in an alley, park, public restroom, shooting gallery, or friend's house) and also be specific about other elements of the goal (for example, thinking about condom use, using bleach consistently every time). And this must all be appropriate to the population of interest (for example, gay men who cruise bars, homeless drug injectors without access to water, women who trade sex for drugs). The more carefully the audience and behaviors are specified,

the more likely it is that an appropriate person will be selected for an interview and that the interview will be useful in producing an effective story.

Identifying a potential role model. Good role models do not have to be perfect practitioners of the target behavior. The appropriate role model is an individual from the priority population who has made some change in a positive direction on a specific behavior to be modeled. Care must be taken that the range of stages of change are reflected in the role model stories, but since any priority population includes individuals at all stages of change, this is, over time, an easily accomplished process. Role models who may be in the maintenance stage on the target behavior can relate their experiences in getting to this stage and may serve as the source for several role model stories reflecting earlier stages of change.

Typically, indigenous outreach workers, interviewers, or health educators experienced in working directly with various priority populations are used to identify population members who would be willing to be interviewed. There are other means of identifying and accessing likely candidates, however. Health department staff in the sexually transmitted disease (STD) clinic may know willing individuals, as may staff in methadone clinics or a local gay service center or bar. AIDS service organizations or drug treatment programs often have volunteers or clients who meet one criteria or another and who look forward to sharing their stories to help others avoid HIV.

Once a potential role model is identified, a brief screening interview will assess suitability as a role model. Has he or she made an appropriate change of a target behavior? Is he or she willing and able to discuss sensitive issues with the interviewer? This assessment should take place prior to the actual interview. The interview process and confidentiality protections must be explained before the interview is begun. The person used as a role model must give written informed consent.

Conducting the interview. The interview should take place in a private room, without interruptions or extraneous noise. An interview may take as long as 1½ hours. Interviewees should be paid for their time.

The interview will be more likely to extract the needed information for the role model story if it follows a written protocol and uses a loosely structured format. Open-ended questions elicit useful quotations. Following incomplete responses, the interviewer should probe for additional information or actual examples. "Tell me more about that" is a non-evaluative probe that is often effective. The more relaxed the circumstances and the less intimidating the questions, the more useful will be the information disclosed. "What happened that led you to make this change?" is a less threatening question than "Why did you do that?"

Clarify terms used by the subject to determine whether he or she typically uses those words or used them, for instance, out of deference to the interviewer. Ask the subject

what word is typically used (for example, rubber, jimmy-hat, rather than condom).

Research and anecdotal data on the beliefs and attitudes of priority population members should be incorporated into the development of the role model story. The interview should be structured to elicit specific beliefs and attitudes known to be related to adoption of the goal behavior(s). These may illustrate the need to adopt risk-reduction behavior, a barrier to be overcome, or a facilitator of positive change. The interviewer should guide the discussion to capture the role model's adoption of those beliefs and attitudes that preliminary studies have found to be linked to change in the target behavior in the specific population of concern.

The interview protocol should be pre-tested on outreach workers and a volunteer from the priority population before it is used. This will serve three purposes: identifying and revising problem areas in the interview, increasing the interviewer's familiarity with the protocol, and informing the outreach workers about the interview and its contents to help them recruit candidates for the interviews.

It is preferable that interviews be audio-tape recorded and the tapes transcribed. This will enable the interviewer to make only the few notes needed during the interview and allow concentration on the interview itself rather than on writing down the responses. Recorded interviews also permit use of direct quotes in the subject's own manner of speaking, critical to the credibility of the story. A transcript may provide material for several stories in addition to the one initially sought.

Writing the story. Stories may be written in the first person or third person. The language quoted should be that of the subject, not the interviewer (although condensing and omitting extraneous material is allowed). Grammar should be corrected where it does not impede the point being made or the authenticity of the role model; however, if corrected grammar hampers communication, the subject's colloquial usage should prevail. Spelling and punctuation should be correct. The reading level should be appropriate for the priority population—if they are school drop-outs, the language should be simple enough to be read by most.

Stories should not be so long as to tax the intended audience's available time or attention span. A sex worker may only be willing to spend a few minutes reading a story; a drug user may nod off reading a long story. Other populations may have more time. The length should also be suitable to the format: a half-page story with a photo may be 200-250 words in length; a photo novela or comic strip is much shorter in number of words but because of the illustrations, may be longer in terms of pages.

The final story should be fictionalized only to the extent needed to maintain the anonymity of the protagonist and other characters and should contain the elements listed below.

1. Role model information in sufficient detail to personalize the individual and to establish credibility with tar-

get population: "Hi, my name is James and I've been shooting smack for eight years. . ." or "James has been using heroin for eight years. He has lived here in (community name) all his life."

2. The circumstances in which the HIV risk occurs: "My buddy Joe and I share outfits sometimes, and sometimes we're too sick to think of bleach or go get some."

3. The context for the change to be modeled: "My old lady, she gets upset about my drugs and even more about me sharing. She says she doesn't want to have sex with me at all if I'm going to put her at risk for AIDS. She says if I want her, I'll have to use a rubber."

4. The barrier, belief, or attitude to be overcome or modified, and the stimulus for change: "I told her I don't like the feel of those things, but she swears she can make me like it. She said I'd never even notice that I had it on, but I sure would notice not getting any sex if I didn't have it on."

5. The modeled behavior as it occurred and the positive consequences: "So I told her I'd give it a try right now, if she'd back up her words with action. And boy has she been giving me some action. Just as long as I use the rubber."

6. The role model's attitude change or outcome: "And you know, using a rubber isn't as bad as I thought it would be. I like feeling good that I won't give her AIDS if I get it."

Reviewing, testing, and revising. Initially the role model stories should be pre-tested before they are used to ensure that they are readable, credible, and understandable to the priority population. This can be accomplished by outreach workers who take the stories into the field and have them reviewed by a sample of the persons for whom they are intended. Focus groups can be used for this purpose as well. The stories should also be reviewed by local health professionals experienced in behavior change to ensure that the intended points are made and are accurate. After several months of pre-testing, when changes are no longer needed and story development skills have been honed, pre-testing can be done less frequently (several times a year).

Once a story draft is completed, its literacy level should be calculated. This can be done roughly by counting the number of three-syllable words in the story (including repetitions), estimating the square root of that number, and

adding a constant of three. The resulting number is the reading grade level one must have completed for 90 percent comprehension, the usual standard (15). Modifications can be made if necessary.

Research and anecdotal data on the beliefs and attitudes of priority population members should be incorporated into the development of the role model story. The interview should be structured to elicit specific beliefs and attitudes known to be related to adoption of the goal behavior(s).

Publishing considerations. The flyers should be unobtrusive in design so that the priority population is willing to carry them. They should be as inexpensive to produce as possible to avoid the need to limit quantities or number of issues. They may contain other information in addition to role model stories, but the role model stories should be the primary focus of the flyers. Selecting different colors of paper or ink for each issue of the flyer will communicate that this is not the same flyer, but contains new stories and information. Photographs or drawings accompanying the stories should reflect the actual ethnicity, sex, and approximate age of the people in the story. Substitutions can

damage the credibility of the story; despite best efforts, subtle differences in language will tell the reader that the person pictured is not the person whose story is being told.

Discussion

In the city of Long Beach, CA, the theoretical principles and guidelines described in this paper were used to generate more than 200 role model stories that were distributed in more than 175,000 flyers over the 3-year course of the CDC AIDS Community Demonstration Project intervention. These role model stories were based on interviews with approximately 70 persons recruited from the local community. A network of 125 peer volunteers distributed the stories at any given time to injecting drug users, their female sex partners, and female sex workers. These 125 trained volunteers were supplied with materials weekly by four paid outreach workers. Peer volunteers reported that priority population members liked the stories particularly because they felt they could identify with them. Another positive feature of the publication was that target population members enjoyed seeing photographs of people they knew or recognized from the community, which reportedly increased their likelihood of reading the role model stories.

Evaluation data obtained from interviews with priority population members substantiated the usefulness of these

principles and guidelines. The role model stories were well-received by community members, with 96 percent of persons who had read the stories stating that the stories were interesting to read. As well as finding them appealing, target population members found the stories believable; 93 percent stated that they thought the stories were true, and 97 percent said they believed the information presented in the flyer.

By following these guidelines for identifying a priority population and its risk behaviors, for selecting and interviewing potential role models from that population, and for writing and publishing their personal stories, materials acceptable to the population can be produced that will model and encourage desirable changes in their risk-taking behavior. Members of the priority populations will have been actively involved in the development of the intervention, the resulting intervention will be culturally appropriate, and its focus will be responsive to changes in community needs and behaviors.

References

1. Dennis, M. L., Soderstrom, E. J., Koncinski, W. S., Jr., and Cavanaugh, B.: Effective dissemination of energy-related information; applying social psychology and evaluation research. *Am Psychologist* 45(10): 1109-1117 (1990).
2. McAlister, A., et al.: Smoking cessation in Texas-Mexican border communities: A quasi-experimental panel study. *Am J Health Promotion* 6(4): 274-279 (1992).
3. Van Houten, R., Nau, P., and Marini, A.: An analysis of public posting in reducing speeding behavior on an urban highway. *J Applied Behavior Analysis* 13: 383-396 (1980).
4. Aronson, E., and O'Leary, M.: The relative effectiveness of models and prompts on energy conservation: A field experiment in a shower room. *J Environmental Systems* 12: 219-224 (1983).
5. Bandura, A.: *Social learning theory*. Englewood Cliffs, NJ, Prentice-Hall, 1977.
6. Bandura, A.: *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall, Englewood Cliffs, NJ, 1986.
7. Ajzen, I., and Fishbein, M.: *Understanding attitudes and predicting social behavior*. Prentice-Hall, Englewood Cliffs, NJ, 1980.
8. Fishbein, M., and Ajzen, I.: *Belief, attitude, intention and behavior: An introduction to theory and research*. Addison-Wesley Publishing Company, Redding, MA, 1975.
9. Bandura, A.: Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review* 84: 191-215 (1977).
10. Bandura, A.: Perceived self-efficacy in the exercise of control over AIDS infection. *Evaluation and Program Planning* 13: 191-215 (1990).
11. Prochaska, J.O., DiClemente, C.C., and Norcross, J.C.: In search of how people change: applications to addictive behaviors. *Am Psychologist* 47(9): 1102-1114 (1992).
12. Prochaska, J.O., et al.: Stages of change and decisional balance for 12 problem behaviors. *Health Psychology*, 13: 39-46, 1994.
13. O'Reilly, K., and Higgins, D.: AIDS community demonstration projects for HIV prevention among hard-to-reach groups. *Public Health Rep* 106(6): 714-720 (1991).
14. McAlister, A.: Population behavior change: A theory-based approach. *J Public Health Policy* 12: 345-361 (1991).
15. McLaughlin, G.: SMOG grading—a new readability formula. *J Reading* 12(5): 639-646 (1969).