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RELIGIOUS GROUPS AS DIFFUSERS OF HIV ANTIBODY TESTING AND PREVENTION MESSAGES

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Using a quasi-experimental design, this study examined how delivering a brief training to volunteers in church congregations impacted (a) church volunteers' persistence in delivering HIV antibody testing messages over time and (b) HIV antibody testing behavior of the church volunteers themselves. Church volunteers attended a briefing regarding delivery of public health messages to others and the churches were assigned to either: (a) a trained condition, where 345 volunteers received an additional 3-hour training in diffusing HIV prevention messages, or (b) a comparison condition, where 199 volunteers received no HIV-specific training. Three months after the intervention, church volunteers in the HIV-trained condition reported delivering an HIV antibody testing and prevention message to more community members than volunteers in the comparison condition. Those in the HIV-trained condition also reported

This paper was completed with the support of a supplement on technology transfer from the National Institute of Mental Health grant #1R01 MH49958-04 to the second author. We would like to thank HOPE for Kids, the volunteers from the Los Angeles International Church of Christ, and all group leaders who assisted in the community training including Quintilia Avila, Trista Bingham, Lilia Espinoza, Anita Guerrero, Mark Kuklinski, Dallas Swendeman, and Thomas Ward.
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JOURNAL OF COMMUNITY PSYCHOLOGY, Vol. 29, No. 4, 459–472 (2001)

significantly higher levels of comfort and self-efficacy in delivering HIV prevention messages than volunteers in the comparison condition. However, the trained volunteers did not themselves get tested for HIV at higher rates than the untrained volunteers. Training church volunteers for community diffusion of HIV prevention messages is an efficient strategy for diffusing HIV messages. © *2001 John Wiley & Sons, Inc.*

HIV prevention programs typically recruit persons at high risk into individual- and group-based interventions that provide behaviorally specific information and skills training (National Institutes of Health [NIH], 1997). While many of these HIV prevention interventions are cost-effective for those at high risk (Holtgrave, Qualls, & Graham, 1996), there has been a series of significant barriers to broad dissemination of these programs: the interventions are relatively expensive ($256–$2,000 per person); are implemented in settings that require standing membership and special visits (e.g., Saturday workshops, community-based agencies) where people make special trips for the intervention; and are delivered in small groups with a high number of sessions, which require coordination of many people's schedules. To reach a broad range of audiences, future prevention programs must be briefer, implemented in a cost-efficient manner that does not require a high level of specialized training or monitoring, and be more convenient and accessible.

The development of prevention strategies that focus on social influences and social networks has offered alternative models for successfully achieving diffusion of HIV prevention messages to a larger population (e.g., popular opinion leader model, Kelly et al., 1997; diffusion theory, Rogers, 1995). Peer and family beliefs, as well as social norms, must be changed to implement prevention strategies (Robbins, 1998). A behavior is more likely to be adopted when it becomes normative within a culture (Inkeles, 1997; Lamal, 1991); the belief that one's peers endorse a specific belief, norm, or behavior increases the likelihood of engaging in that behavior. This truth applies to a wide range of behaviors, including those surrounding HIV (Kelly et al., 1997), substance use (Botvin & Botvin, 1992), and cigarette smoking (Hu et al., 1995). Given the potential impact of social influence models in HIV prevention, this study explored whether volunteers could be trained to deliver HIV antibody testing and prevention messages to people in their social networks, and if the delivery of these messages would persist over time. The study also examined whether delivering the HIV-related messages influenced the HIV antibody testing behavior of the volunteers themselves.

Church attenders often serve as volunteers or policy advocates and are easy to mobilize (Amey, Albrecht, & Miller, 1996; Okun, 1993; Voss, 1996). Both African American and Latino congregations have a long history of addressing unmet health and human service needs for their respective communities (Billingsley & Caldwell, 1994; Castro, Coe, Gutierres, & Saenz, 1996; Quinn & Thomas, 1994; Thomas, Quinn, Billingsley, & Caldwell, 1994). Numerous studies have documented the effectiveness of church-based community health programs (Boehm et al., 1995; Ferdinand, 1997; McNabb, Quinn, Kerver, Cooks, & Karrison, 1997; Newsome, 1994; Schorling et al., 1997; Smith, Merritt, & Patel, 1997; Voorhees et al., 1996). Historically, mobilization to combat community health issues by church congregations suggests that church congregations have the resources and concern necessary to implement HIV prevention

programs. Therefore, the current study employed community outreach church volunteers in an effort to diffuse HIV antibody testing and prevention information throughout the volunteers' communities.

Encouraging early detection of HIV is increasingly important (Frerichs, 1997; Rotheram-Borus et al., 1997). First, HIV-positive persons may prolong the duration and quality of their lives by using combination antiretroviral therapies (Eron et al., 1995; Kinloch-de Loes & Perrin, 1995). Second, newly infected HIV-positive persons are more likely to infect others because of high viral load (Ho, 1996; Pantaleo, Graziosi, & Fauci, 1993); therefore, early identification of seropositivity may reduce the likelihood of HIV transmission to others. Finally, seropositive persons substantially reduce their transmission behaviors after learning their HIV serostatus, reducing further infections (Rotheram-Borus et al., 1997). Therefore, encouraging testing is crucial, and diffusing messages encouraging HIV antibody testing is an important prevention strategy. Also, some religious organizations may object to an HIV prevention message that advocates condom promotion; advocating increases in HIV testing should not conflict with religious beliefs.

Rather than focusing on the behavior changes of those who received the HIV antibody testing messages from the church volunteers, we examined the impact of the training on the volunteers. Examining the behavior of the recipients of the volunteers' messages was beyond the scope of this study. We were interested in whether the training impacted (a) church volunteers' persistence in delivering HIV antibody testing messages over time and (b) HIV antibody testing behavior of the church volunteers themselves. The literature suggests that people who deliver HIV messages are likely to change their own behavior. Peer leaders often change their behavior and maintain reduction in their own risk behaviors as a result of their involvement in HIV prevention programs (Grossberg, Tillotson, Roberts, Roach, & Brault, 1993; Pulley, McAlister, Kay, & O'Reilly, 1996). Therefore, we examined the church volunteers' HIV antibody testing behaviors 3 months following their door-to-door effort delivering HIV antibody testing messages to their community. We also explored whether the delivery of HIV-related messages persisted over time. We examined the number of people (i.e., family, friends, coworkers, acquaintances) in each of the church volunteer's community to whom he or she had delivered HIV antibody testing and prevention messages over the 3 months following the organized day-long outreach effort.

METHODS

Participants

A national volunteer organization committed to promoting improved child health through educational outreach (HOPE for Kids) organized the church attenders who volunteered for this study. In 1997, nearly 30,000 volunteers nationwide participated in a health education outreach effort. In a one-day outreach effort, volunteers performed door-to-door canvassing in neighborhoods and delivered health prevention messages, typically regarding childhood immunization. In a quasi-experimental design, a subset of church volunteers from four of these congregations participated in this study and distributed HIV-related information; this information included an 800 AIDS hotline number and local referrals for community HIV antibody testing sites for community-based agencies that could provide further information about HIV and AIDS.

Church congregants participating in the neighborhood canvassing were recruited 2 weeks prior to the annual canvassing date. At their regularly scheduled gathering, church volunteers were given HIV information to incorporate into their canvassing outreach. Outreach coordinators were interested in expanding their efforts to include HIV prevention and approached the researchers. Four congregations had volunteered to participate in the study. Two of the four congregations were given an additional training during their routine weekly gathering about delivering HIV antibody testing and prevention messages; the volunteers from the other two church congregations served as a comparison condition and did not receive the additional training.

The two churches in the trained condition were approximately 10 to 20 miles away from the two comparison churches. The churches belonged to the same denomination and provided community service in their respective neighborhoods. Congregations from each church rarely attended the same gatherings, events, or services as the other churches in the study; therefore, contamination by information sharing between the trained and comparison churches was unlikely. To respond to the concerns of church ministers that we serve those most in need, the volunteers who attended churches in two communities with the highest HIV seroprevalence rates were chosen to receive the 3-hour HIV training; the comparison congregations were selected for convenience. Given this selection criteria and the demographics of HIV in Los Angeles, we expected ethnic differences between the trained and comparison churches (larger number of African Americans in the trained conditions).

During the churches' regularly scheduled mid-week gathering, all of the volunteers in attendance voluntarily completed, with informed consent, a pretest assessment. Church attenders were unaware prior to arrival that the gathering would include an HIV prevention training. Therefore, participants did not select to attend, thus minimizing selection bias. Following the pretest, participants took part in the training. In another mid-week gathering approximately 3 months following the outreach afternoon, the volunteers were asked to answer a posttest questionnaire. Again, the participants were unaware that the posttest was going to be distributed at that time; all of the church volunteers present at that evening's activities completed the posttest. Consequently, although no one refused to complete either questionnaire, some of the volunteers who had completed the pretest were not present to take the posttest and vice versa.

To match the pre- and posttraining assessments and to maintain anonymity, participants were asked to place a unique identification code (their initials and last four digits of their social security number) on each completed assessment. There were 801 trained and 471 comparison church volunteers who participated in the pretest, while 682 trained and 274 comparison individuals participated in the posttest. Data analysis was based on the 544 participants who completed both the pre- and postassessments (345 trained; 199 comparison). Since the church volunteers did not know at which meeting the pre- and postassessments were to be conducted, bias or selection effects in who completed each assessment were unlikely. The chi-square test results indicated no significant differences in the attrition rate for the trained and comparison conditions ($p = .78$). The participants accurately reflected the church attenders at the mid-week services of the congregations, the same selection pool as those participating in the outreach volunteer program and the training groups. The church volunteers tended to be women (60%). The average age of the participants was 28.1 years ($SD = 7.04$), and the ethnic breakdown was 36% African American, 30% Caucasian, 19% Latino, 10% Asian/Pacific Islander, and 5% Other Ethnicities.

Intervention Training

Sites were assigned to either the trained or comparison condition. Volunteers in both conditions distributed information on HIV antibody testing and childhood immunization. On the day of the door-to-door canvassing, there was a 2-hour rally at which volunteers received a briefing about the day's activities. Volunteers in the comparison condition received only the educational briefing given at a 2-hour rally for the community outreach effort. At the rally, all of the volunteers received information about childhood immunization, the immunization schedule for children, and brochures regarding immunization to give to households. In addition, they received HIV-related educational public health materials (e.g., pamphlets) to deliver door-to-door, and were reinforced on the importance of their outreach efforts. No specific HIV information was given at the rally; volunteers were asked to encourage households to obtain further information about HIV by contacting the HIV-related referral phone numbers. However, church volunteers in the trained condition received an additional 3 hours of training on an intervention to deliver an HIV/AIDS message encouraging others in the community to take an HIV antibody test. The intervention provided educational information about HIV and employed cognitive-behavioral techniques such as modeling, knowledge acquisition, reinforcement, confrontation and arguing of beliefs, and multiple role-plays. These techniques motivated participants to engage in the skill-building process by increasing their recognition of HIV as a problem, and increased participants' comfort and self-efficacy in discussing HIV antibody testing and prevention issues.

All of the trainers were experienced in cognitive-behavioral interventions for small groups and had worked in the field of HIV. There were 11 trainers, of whom 4 had doctorate degrees. The trainers' ethnicity reflected that of the targeted congregations, and 4 of the 11 trainers were bilingual in Spanish. Many of the trainers had received 40 hours of training to lead groups for a national HIV prevention trial, and all had received 3 hours of training specific to this project prior to delivery of the intervention.

The intervention training was very activity-focused and was delivered in two 90-minute sections. In the first part of the training, church volunteers participated in role-plays and exercises that provided accurate HIV knowledge and debunked HIV myths. The activities provided basic information about HIV transmission, prevalence, and testing by using a game show format in which volunteers responded to true/false questions and discussed a number of HIV misconceptions (e.g., "There is a cure for AIDS" and "HIV is a gay disease"). Positive attitudes and decreased anxiety about HIV antibody testing were encouraged by having the participants, in small groups, develop arguments against negative attitudes regarding HIV-relevant issues (e.g., "If I talk to my kids about condoms, they will think I'm encouraging them to have sex"). By confronting these attitudes, the participants increased their comfort in talking about HIV and challenged many of the barriers to HIV antibody testing.

In the second part of the training, participants met in small groups of seven to nine participants led by a trainer experienced in HIV prevention. The trainers distributed guidelines for delivering an effective message: (a) self-disclose one's beliefs and attitudes toward HIV antibody testing as well as any changes over time in one's beliefs, attitudes, and behaviors toward HIV prevention, and (b) compose short sentences that clearly state the message's goal (e.g., "I've been hearing a lot more about HIV in our community and it's got me thinking. I've learned all I can and got tested.

You should also think about getting tested. It's not hard and it gives you peace of mind to know"). Conveying an HIV antibody testing message was modeled. The small groups then met in groups of three persons each. In each triad, one individual practiced delivering an interpersonal message to encourage HIV antibody testing; another individual served as the recipient of the message; and the third person acted as the coach. After practicing delivering a prevention message, each participant received feedback regarding his/her verbal and nonverbal behaviors. The roles rotated within the triad, enabling each person to practice delivering, receiving, and coaching the skill. The interactions among the participants were monitored by the trainers, who also provided feedback and coaching.

Assessment

At a routine weekly gathering held prior to the training session and again 3 months after the door-to-door canvassing, participants completed a questionnaire that assessed: (a) background information about the participant (age, gender, ethnicity, and educational level); (b) the prevalence of HIV antibody testing (participants reported whether they were tested for HIV [0 = *no*, 1 = *yes*]); (c) the frequency of talking to anyone regarding HIV prevention (participants reported whether they had talked to anyone about HIV prevention [0 = *no*, 1 = *yes*]); (d) the number of people the participants had talked to about HIV prevention in the previous 90 days summed across six categories (friends, acquaintances, family members, spouse/lovers, sex partners, and other persons); (e) the frequency of talking to anyone regarding HIV antibody testing (participants reported whether they had talked to anyone about HIV antibody testing [0 = *no*, 1 = *yes*]); (f) the number of people the participants had talked to about HIV antibody testing in the previous 90 days summed across six categories (friends, acquaintances, family members, spouse/lovers, sex partners, and other persons); (g) self-efficacy in delivering HIV antibody testing and prevention messages (participants rated their self-efficacy on two Likert-scale questions, "How confident do you feel talking to others about HIV prevention?" and "How confident do you feel talking to others about HIV testing?", that ranged from 1 [*no confidence*] to 7 [*very confident*]); and (h) comfort in delivering HIV antibody testing and prevention messages (participants rated their comfort on two Likert-scale questions, "How comfortable do you feel talking to others about HIV prevention?" and "How comfortable do you feel talking to others about HIV testing?" that ranged from 1 [*very uncomfortable*] to 7 [*very comfortable*]).

Statistical Analysis

To examine dichotomous outcomes, logistic regression was performed. The first outcome of interest was whether, subsequent to the training, the participant had talked to anyone about HIV prevention during the previous 90 days, and the main effect of interest was whether one had received the training or not. The second outcome in the analysis was whether the participant reported talking about HIV prevention at the posttest (*yes* or *no*). To examine the effect of the training, the following pretest scores were controlled for in the analysis: whether the participant reported talking to others about HIV prevention; whether the participant had ever been tested for HIV; and whether the participant knew an HIV-positive person. The same procedure was applied in examining whether the participant reported talking to others about HIV antibody testing after the training, and whether the participant had been tested for HIV during

the 90 days following the training. These variables were controlled for in the analysis as potential confounders, since they were associated with whether or not one received the training and had potential effects on the examined outcomes. Age, gender, and ethnicity were not controlled for in the analysis because they were not associated with the examined outcomes.

To analyze continuous variables, analysis of covariance was used. Ordinal outcomes (ranging from 1 to 7) were treated as if they were continuous variables. When examining comfort and efficacy in delivering HIV antibody testing and prevention messages, the outcome was the difference score of the pre- and post-tests, which was also treated as a continuous variable. Since this study aimed to examine the change in the outcomes of interest after the training (e.g., the difference in the number of discussions with others about HIV prevention after the training as compared to prior to the training), the use of difference scores was appropriate. However, the statistical results were the same when using the difference scores or the repeated measures for pre- and postscores to compare the two conditions.

RESULTS

This study used a quasi-experimental design that assigned sites to the intervention conditions, so that there were some differences between the trained and comparison conditions. As shown in Table 1, chi-square analysis indicated that there were more African Americans in the trained condition than in the comparison condition (42% vs. 24%), and significantly more Asians in the comparison condition than in the trained condition (6% vs. 17%). However, overall, both samples were ethnically diverse and contained about the same proportion of White, non-Latinos. Age and gender distributions were comparable between the two conditions. Since they were recruited from neighborhoods with high HIV seroprevalence rates, and those neighborhoods have been targeted for HIV prevention services, individuals in the trained condition were more likely to have known someone with HIV (65% vs. 36%) and to have been tested

Table 1. Sociodemographic Characteristics in the Trained and Comparison Groups

	Trained (n = 345)	*Comparison (n = 199)*
Female	55%*	60%*
Ethnicity		
African American	50%***	24%***
White	21%***	34%***
Hispanic	19%***	20%***
Asian/Pacific Islander	6%***	17%***
Other	4%***	6%***
Mean age in years	29*	28*
High school/GED or less	42%*	32%*
Know HIV+ person	65%***	36%***
Ever tested for HIV	53%***	36%***
Talked to others about HIV prevention	34%*	14%*
Talked to others about HIV testing	22%***	14%***

*$p < .05$; **$p < .01$; ***$p < .001$.

for HIV previously (53% vs. 36%) than those in the comparison condition. Participants in the trained condition were also more likely to have ever talked to others about HIV antibody testing (34% vs. 14%) and prevention (22% vs. 14%) than in the comparison condition.

Statistical analysis was conducted using data gathered from the entire sample prior to training and 3 months later, as well as from the sample who completed both the pre- and postassessments. Since the results were similar for both samples, we report only the matched sample analysis. The chi-square test results indicated no significant differences in the attrition rate for the trained and comparison conditions ($p = .78$), suggesting minimized selection bias.

Results of the logistic regression indicated that the trained condition had a significantly higher probability of talking about HIV/AIDS prevention after the training than the comparison condition (OR = 2.185, 95% CI = [1.39–3.43]). The trained condition also had a significantly higher probability of talking about HIV antibody testing after the training than the comparison condition (OR = 4.133, 95% CI = [2.402–7.111]).

Table 2 illustrates the category of person the participants talked to about HIV prevention and testing. All participants increased their number of discussions to others about HIV prevention (see Figure 1). Prior to the training, the number of discussions with others about HIV prevention was not significantly different between the two conditions ($t = 1.30$, $p = .1939$). However, after the training, the difference in the mean number of discussions with others regarding HIV prevention was 3.05 ($SD = 0.73$) for the trained condition and 0.55 ($SD = 0.96$) for the comparison condition. Analysis of covariance also indicated that the trained condition talked to more people about HIV prevention, than did the comparison condition, $F(1,532) = 4.12$, $p = .04$, adjusted for the baseline number of discussions with others about HIV prevention. There was no significant interaction between the training condition and pretest scores.

While participants in the trained group were more likely to talk about HIV with others in their lifetime, the number of discussions with others about HIV testing in the

Table 2. Mean Number of People Talked to by Category and Training Status

	Trained Group		*Comparison Group*	
Category of People	*Pretest*	*Posttest*	*Pretest*	*Posttest*
HIV Prevention				
An acquaintence/someone you know	4.66	10.95	6.71	6.13
A friend	5.38	3.88	2.78	3.42
A family member	3.46	1.67	2.00	1.91
Your spouse/lover	1.35	0.50	1.00	1.00
Your sex partner	3.60	0.25	1.00	1.00
A client/volunteer	14.50	8.48	11.00	6.75
HIV Testing				
An acquaintence/someone you know	2.08	13.92	2.00	1.50
A friend	2.38	4.21	1.71	4.25
A family member	2.79	1.75	1.50	2.00
Your spouse/lover	1.13	0.50	1.00	1.00
Your sex partner	1.63	0.20	0.00	1.00
A client/volunteer	2.00	10.35	0.00	2.00

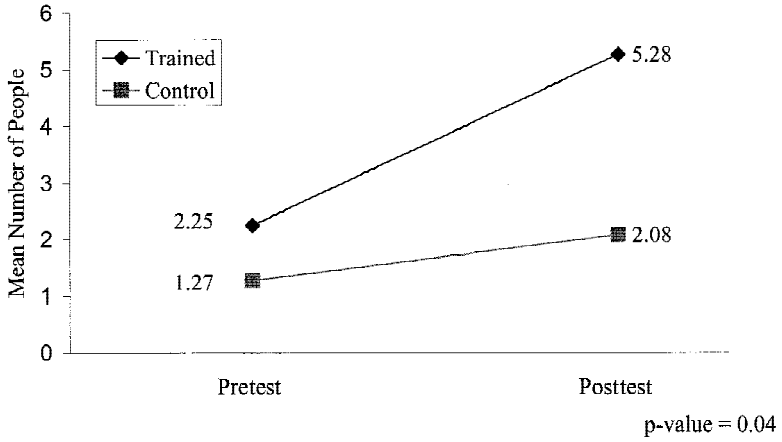

Figure 1. The number of people the participants talked to about HIV prevention.

3 months prior to the training was not significantly different between the comparison and trained conditions, $t = 0.78$, $p = .4370$ (see Figure 2). There was a significant difference in the mean number of discussions with others regarding HIV antibody testing with a mean of 3.42 ($SD = 0.76$) conversations over the past 3 months for the trained condition and 0.92 ($SD = 0.99$) conversations for the comparison condition, $F(1,532) = 3.86$, $p = .05$. The baseline number of discussions to others about HIV antibody testing were adjusted for in these analyses. The significant interaction between the training condition and pretest scores suggests that the number of discussions with others about HIV antibody testing increased more for the trained condition than for the comparison condition at the time of the posttest, $F(1,531) = 36.66$, $p < .0001$.

As shown in Table 3, the change in the mean level of comfort in talking about HIV prevention for the trained and comparison conditions was 0.08 ($SD = 0.08$) and -0.20 ($SD = 0.11$) respectively, adjusted for the baseline level of comfort in talking about HIV prevention. Analysis of covariance suggested that the trained condition reported higher levels of comfort when talking about HIV prevention than did the comparison condition, $F(1,449) = 4.29$, $p = .0388$, controlling for baseline differences. Participants' reports of comfort in delivering HIV antibody testing messages did not change significantly over time, nor did their reports of self-efficacy in delivering HIV antibody testing and prevention messages.

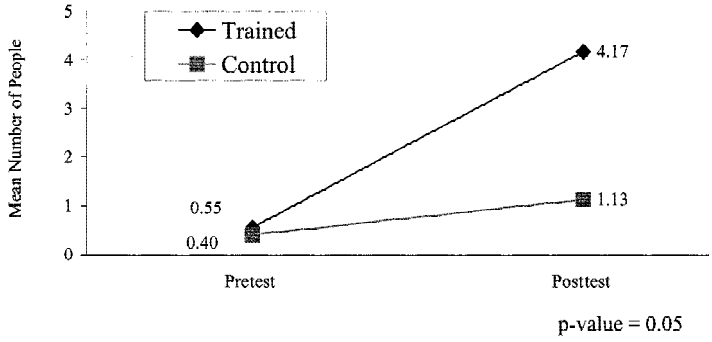

Figure 2. The number of people the participants talked to about HIV antibody testing.

Table 3. Mean Level of Comfort and Confidence in Delivering HIV Prevention and Testing Messages

	Trained Group		*Comparison Group*	
	Pretest M (SD)	*Posttest M (SD)*	*Pretest M (SD)*	*Posttest M (SD)*
HIV Prevention				
Comfort Level	5.33 (1.71)	5.47 (1.40)	5.46 (1.60)	5.18 (1.62)
Confidence Level	4.77 (1.78)	5.40 (1.21)	5.40 (1.66)	5.02 (1.52)
HIV Testing				
Comfort Level	5.68 (1.61)	5.70 (1.27)	5.48 (1.86)	5.42 (1.66)
Confidence Level	5.24 (1.61)	5.56 (1.14)	4.82 (1.78)	5.26 (1.39)

Logistic regression was used to examine the HIV antibody testing behaviors of the participants. There was no statistically significant difference between the trained and comparison conditions in whether they had been tested for HIV in the 90 days prior to the posttest (OR = 2.990, 95% CI = [0.649–13.771]). Based on this finding, the training did not seem to impact HIV antibody testing behaviors.

DISCUSSION

The World Health Organization has recently estimated that fewer than 5% of people worldwide who are HIV-infected are aware of their serostatus (UNAIDS, 1997); about two-thirds of infected persons in the United States are aware of their serostatus (Shapiro et al., 1999). Given the introduction of prophylactic interventions to reduce disease progression among those infected with HIV, early detection of HIV is becoming increasingly important (Frerichs, 1997; Rotheram-Borus et al., 1997). This study explored the use of church volunteers as a means of diffusing HIV antibody testing and prevention messages. We examined whether a training method would increase the likelihood of their sharing messages about HIV antibody testing and prevention with others. The prevention program described in this paper does propose a brief, cost-effective strategy for training church volunteers to enhance diffusion of HIV antibody testing and prevention messages within individual social networks. While there was no significant increase in the testing behaviors of the church volunteers themselves, the brief follow-up period and relatively high HIV antibody testing rates prior to the intervention may have reduced our ability to observe significant differences.

Churches are effective contexts for reaching large numbers of persons, especially African Americans and Latinos, many of whom are at high risk for contracting HIV (Crawford, Allison, Robinson, Hughes, & Samaryk, 1992; Stark, 1984). Despite their differences, both the trained and comparison conditions were ethnically diverse, predominantly female, and composed of high school graduates from predominately lower- and lower-middle-class communities. It is important to note that all the participants, including those in the comparison condition, more frequently discussed HIV antibody testing with others after participating in the outreach effort. However, significantly more volunteers who participated in the HIV-related training reported delivering HIV antibody testing and prevention messages over the next 3 months as compared to a

comparison group of church volunteers. There was a significant increase in the percentage of persons delivering HIV antibody testing and prevention messages.

Not surprisingly, prior to the training, individuals in the trained group were more likely to have been tested for HIV or know someone who is HIV positive. Given that the trained group resided in areas with higher seroprevalence rates than the comparison groups, we would expect there to be differences. Although we controlled for pretest differences in the analysis, it is possible that other reasons also contributed to the trained group's increase in discussing HIV. For example, it may be possible that the trained group were more interested in the issue of HIV and therefore were more likely to talk with others regarding HIV prevention and testing. Since a higher number of individuals in the trained group were already discussing HIV prevention and testing with others, HIV prevention and testing may be more salient issues and, therefore, the trained group may have been more motivated to increase their discussions about HIV prevention and testing. It is also possible that the participants' HIV status or other personal factor influenced the increase in discussions. Further research is needed to examine the individual factors that may predict the likelihood of an individual increasing discussions about HIV prevention and testing.

Utilizing individuals who attend church to diffuse HIV-related messages in their social networks was successfully achieved. The delivery of HIV-related messages persisted over the 3 months, as the volunteers in the trained condition talked more frequently to those in their social networks about HIV antibody testing and prevention than did those in the comparison condition. These results are encouraging and suggest the possibility of increasing people's discussions of HIV antibody testing and also suggest an effective low-cost means for broad-scale dissemination of HIV prevention programs.

However, this study is limited by its inability to speak to the effect on those who received the message. The current study suggests that a community-based "spread the word" program could reach a large number of people. Future research should examine if having peers discuss HIV prevention and testing would impact the message recipient's testing or HIV-related risk behaviors. Findings from the AIDS Community Demonstration Project (ACDP; Fishbein et al., 1999), which used peer volunteers, indicate such programs would be successful. In the ACDP, impact on community was evaluated by conducting street intercept surveys. The survey assessed sexual behavior, background information, attitudes, beliefs, and exposure to the intervention. Analysis was then conducted at the community level to see if there were increases in condom use among the community. A similar technique could be used to assess the impact of training individuals to deliver HIV prevention and testing messages—such as a community level analysis using street intercept data to see if HIV testing behaviors had increased in the community. Alternatively, obtaining information about who the trained individuals spoke with and assessing the HIV testing behavior of the message recipients would be informative. Further research is needed that includes more complex outcome data, especially data on the recipients of HIV prevention and testing messages.

Although the participants in the trained condition reported significantly more HIV prevention and testing discussions following the training, the comparison group also reported increases in HIV prevention and testing discussions. Therefore, there were also increased HIV prevention and testing discussions by persons living in lower HIV seroprevalence areas. Identifying the factors that contributed to the comparison group's increased discussion would inform the generalizability of these findings to areas with lower HIV seroprevalence. For example, the pretest questions regarding

who they had talked with about HIV prevention and testing may have primed individuals in the comparison condition to talk with others. If this were the case, then a training about how to talk to others about HIV prevention and testing may result in further increases in discussions with others. Peer-led interventions may be a promising technique in areas with low seroprevalence of HIV; however, future research is needed.

Early detection of HIV is an increasingly important factor in HIV prevention programs. Accurate knowledge of one's seropositivity benefits both the individual (by the implementation of combination therapies) and society (because most of those who know they are infected reduce their transmission behaviors; Fox, Odaka, Brookmeyer, & Polk, 1987; Rotheram-Borus et al., 1997). Unfortunately, prevention programs often rely exclusively on emphasizing condom use as the means of prevention. The first step in prevention, however, is to promote discussion about HIV antibody testing in order to eventually increase the number of individuals who get tested. Given that peers can influence an individual's subsequent behavior (Testa & Leonard, 1995; Zapka, Stoddard, & McCusker, 1993), this study presents an efficacious strategy for influencing and increasing the dialogue about HIV antibody testing within an individual's social network, and represents an important component in the continuum of HIV prevention.

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