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Empowering Peer Group Leaders for HIV Prevention in Malawi

Linda L. McCreary, PhD, RN¹, Chrissie P. N. Kaponda, PhD, MRNM², Kristina Davis, MS, MPH³, Mary Kalengamaliro, MS, RNM⁴, and Kathleen F. Norr, PhD⁵

¹Alpha Lambda, Research Assistant Professor, University of Illinois at Chicago College of Nursing, Chicago, IL, USA ²Alpha Lambda and Tau Lambda-at-Large, Professor, University of Malawi, Kamuzu College of Nursing, Malawi ³Program Manager, Health Research and Educational Trust, American Hospital Association, Chicago, IL, USA ⁴Women's Health Department, Middlemore Hospital, Auckland, New Zealand ⁵Alpha Lambda, Professor Emerita, University of Illinois at Chicago, College of Nursing, Chicago, IL, USA

Abstract

Purpose—Behavioral change interventions using peer group leaders are effective and widely used, but few studies have examined how being a peer group leader affects the leaders. This study describes how participants felt being a peer group leader affected their lives.

Design—This descriptive qualitative study interviewed 18 experienced peer group leaders who had conducted a multisession human immunodeficiency virus (HIV) prevention peer group intervention in rural Malawi.

Methods—We used inductive content analysis and comparisons within and between cases. Findings: Three major themes were identified. All leaders said they experienced personal changes in their knowledge, attitudes, or HIV prevention behaviors. They described interacting with family, neighbors, and friends, and speaking at church or community meetings, to discuss HIV prevention issues. They increased their self-efficacy to engage others in sensitive HIV prevention issues, developed a self-identity as a change agent, and came to be recognized in their community as trustworthy advisors about HIV and acquired immunodeficiency syndrome. These three themes, taken together, form the meta-theme of psychological empowerment.

Conclusion—Being a peer group leader empowered the leaders as change agents for HIV prevention and had impacts in the community after the intervention ended, potentially increasing the long-term effectiveness and cost effectiveness of peer group interventions.

Clinical Relevance—Healthcare workers and community volunteers who led HIV prevention sessions continued HIV prevention activities in the community and workplace after the program ended. Training health workers as volunteer HIV prevention leaders offers a strategy to bring HIV prevention to limited-resource settings, despite health worker shortages.

Keywords

Community-public health-environmental health; primary health care; HIV/AIDS; international health or global health; qualitative methodology

Human immunodeficiency virus (HIV) prevention remains one of the most important strategies for controlling the acquired immunodeficiency syndrome (AIDS) epidemic in sub-Saharan Africa. Cultural barriers to HIV prevention include stigmatization of HIV, gender inequality, and norms that prohibit open discussion of sexual content—especially with young people and between partners (Benotsch et al., 2004; Chimbiri, 2007; Kathewera-Banda, 2005; Lindgren, Rankin, & Rankin, 2005; Muula & Mfutso-Bengo, 2004). Integrative reviews and meta-analyses have documented the effectiveness of peer group interventions in overcoming barriers and achieving HIV risk-reducing behavior change across many countries and target groups (Albarracin et al., 2005; Albarracin, Albarracin, & Durantini, 2008; Medley, Kennedy, O'Reilly, & Sweat, 2009; Muula & Mfutso-Bengo, 2004). Peer group interventions are based on Bandura's (1982) social-cognitive learning theory that increasing self-efficacy or confidence promotes behavioral change. Trained peer group leaders facilitate a series of small-group meetings that incorporate skill building, role modeling, and rehearsal.

Despite the success of peer group interventions, little is known about how being a peer group leader affects individuals who assume this role. One study found that trained members of a target population reported satisfaction and personal benefits from their work (Norr, McElmurry, & Misner, 1999). A longitudinal study of 27 lay health promoters who served migrant farm workers found that 24 of them had increased empowerment (Booker, Robinson, Kay, Najera, & Stewart, 1997). Psychological empowerment is a process through which individuals perceive personal control and participate in decisions about their own lives, gain critical awareness of their social and political environments, and actively engage in their communities to achieve their goals (Zimmerman, 1995). Psychological empowerment encompasses intrapersonal factors such as knowledge and attitudes, but also includes actualizing these intrapersonal factors through interactions with others and a changed understanding of the self (Christens, Peterson, & Speer, 2011). Because peer group interventions explicitly build self-efficacy, which affects the understanding of the self, it is plausible that peer group leaders also experience empowerment through their participation. However, we identified no prior studies that examined the effect on leaders of being part of a peer group intervention for HIV prevention or other health promotion.

To begin to address this gap, the purpose of this study was to explore how peer group leaders felt being a volunteer peer group leader had affected their lives. The specific intervention that engaged these peer group leaders, *Mzake ndi Mzake* (Friend to Friend), was a 6-year research project aimed at HIV prevention in rural Malawi.

Methods

We used a qualitative descriptive study design to examine the effects on the lives of the volunteers of being a peer group leader for HIV prevention. This approach is well suited to identifying themes for a context that has had little research (Sandelowski, 2000, 2010).

Setting and Sample

This study is set in Malawi, a low-resource country in sub-Saharan Africa. HIV prevalence is 10.6% among adults 15 to 45 years of age, and 80% of new infections occur among partners in stable heterosexual relationships (Malawi Government, 2012). Although Malawi is a predominantly rural country, relatively few HIV prevention programs have reached the rural areas. Therefore, we located this study in *Ntcheu*, a rural district in Central Malawi. The larger study, briefly described below, developed and tested a peer group intervention. We trained 102 peer group leaders, including both health workers and community volunteers. Over the 4 years of implementation, we asked one peer group leader to

withdraw, because that leader was not presenting session content accurately. Only one other peer leader withdrew from the program.

We purposively selected 18 leaders who had been facilitating peer groups for at least 1 year, so that they would be able to talk knowledgeably about how being a peer group leader had affected them personally. Because the first peer leaders were all health workers, and we purposefully selected experienced peer group leaders, most of those eligible for inclusion in this study were health workers. In addition, two of our interviewers were University of Illinois at Chicago undergraduate and graduate students who did not speak Chichewa. More health workers were included, too, because they spoke English and could be interviewed in English. Two participants were community adults; the other 16 were employed at health facilities as clinicians, clinical support staff, or nonclinical staff, such as laundry workers. The sample included 7 males and 11 females. Their mean age was 36.5 years (range 26–48). Their education ranged from Standard 8 (U.S. 8th grade) to baccalaureate degree. Fifteen participants were married, one was widowed, and two were divorced.

Peer Group Intervention and Leader Preparation

The *Mzake ndi Mzake* intervention was based on a conceptual framework that integrates the World Health Organization (WHO) primary healthcare model of community–health worker collaboration (McElmurry & Keeney, 1999) and Bandura’s (1989) social-cognitive learning theory (Norr et al., 2006). Our previous work documented that the intervention was effective in changing HIV-related knowledge, attitudes, and behaviors (Dancy et al., in press; Kaponda et al., 2011; Mbeba et al., 2011), and that peer group leaders implemented the intervention with fidelity (McCreary et al., 2010). To build on the existing rural healthcare system, we first offered the intervention to district health workers, some of whom volunteered to become peer group leaders. The trained leaders worked in pairs to offer the intervention to adults and youth in nearby rural villages, where community members also volunteered to become peer group leaders.

Peer group leaders received about 36 hr of training over a 2-week period. Training was designed to familiarize them with intervention content, overcome reluctance to discuss topics that challenge cultural barriers to HIV prevention, and learn group facilitation techniques to engage group members. Sessions included discussion of stigma, detailed sexual anatomy, and how HIV is transmitted through sexual activity, condom demonstration and practice, and role play practicing (e.g., partner negotiation or talking with a young person about HIV). Peer leaders first participated in the entire intervention as group members, followed by rehearsal in mock peer groups with other leaders and trainers, with supportive and corrective feedback.

Interview Guide

We wanted to explore the ways in which being a peer group leader had affected these volunteers. Our inquiry was not driven by a particular conceptual framework. A semistructured interview guide was used to ensure that we asked about all aspects of potential impact. The interview began with the broad question, “Can you please explain how it has been for you to be a peer group leader?” Then we asked, “Has there been anything that made you feel especially good about being a peer group leader?” and “Has there been anything that made you feel uncomfortable about being a peer group leader?” We also asked, “How do you think your role as a peer group leader has affected your relationships with your family?” and “How has your role as a peer group leader affected your relations with your neighbors and friends?” Each interview was approximately 1 hr in length.

Procedure

Interviews were conducted at two different times. One investigator (M.K.) interviewed eight peer group leaders as part of our process evaluation while the larger study was in the final evaluation stage. Because these interviews provided important information, but data did not appear to have reached saturation, a year after the project ended another investigator (K.D.) and research assistant interviewed 10 additional leaders. The Africa site co-director (C.K.) conducted one training interview with each of the interviewers. After 18 interviews, the sample achieved saturation in that no new themes emerged in the last few interviews (Strauss & Corbin, 1998).

Project approval was obtained from the ethics review boards at the University of Illinois at Chicago and the University of Malawi. Participants were identified in consultation with co-investigators and research staff from the larger study and recruited by the interviewers, who were not involved in the larger study. The consent process and interview were conducted in a private place using the participant's preferred language of English or Chichewa, the dominant local language in this district.

Analysis

Interviews were tape-recorded and transcribed verbatim. For interviews conducted in Chichewa, we used a modified consensus translation procedure (Behling & Law, 2000). A bilingual, native speaker research team member translated the transcripts from Chichewa to English for data analysis. The Chichewa and English transcripts were then reviewed by one of the investigators (C.K.), and discrepancies were discussed and resolved by consensus.

We then conducted inductive content analysis using the procedures of immersion through repeated review of the entire set of transcripts, open coding, development of a coding scheme, coding, creating broader categories or themes, and abstraction resulting in a model or conceptual system describing the phenomenon (Elo & Kyngas, 2008). All of the coauthors participated in the development of codes and categories and abstraction. Transcripts were coded independently by two staff members who achieved an intercoder agreement greater than 85%. ATLAS.ti qualitative software was used to apply the codes and manage the data, which allowed us to retrieve all quotations associated with each code. As part of the abstraction, we conducted within- and cross-case analyses following procedures recommended by Ayres, Kavanaugh, and Knafl (2003).

Findings

We identified three major themes from the data, each described by all 18 of the peer group leaders. They described intrapersonal changes in their HIV-related knowledge, attitudes, and behaviors. They reported changes in their interactions with others, engaging in HIV prevention activities with their families and neighbors beyond leading the peer groups. They also identified an emerging identity as a change agent for HIV prevention. Each theme contained subthemes, identified as an important aspect of the theme if approximately half or more of the participants mentioned it. Themes and subthemes are listed in Table 1. Although we did not initiate the analysis using an empowerment perspective, together these interrelated changes describe a meta-theme of psychological empowerment. The psychological empowerment experienced by the peer group leaders enabled them to challenge cultural norms that are barriers to HIV prevention and to become HIV prevention leaders in their communities.

Intrapersonal Changes: Peer Group Leaders' Own Knowledge, Attitudes, and Behaviors

All 18 participants described how being a peer group leader led them to make changes in their own personal lives. These changes included HIV-related knowledge, attitudes, and behaviors in their personal lives and in the workplace.

Increased knowledge about HIV and AIDS—Fifteen of the 18 peer group leaders reported that what they learned during peer group leader training helped them gain a better understanding of HIV and AIDS, including knowledge of sexual transmission, potential for HIV transmission in health facilities, and strategies for prevention. Although the leaders had previous exposure to HIV-related mass media messages, these messages did not always increase knowledge, in part because some people discounted the messages. For example, one peer group leader said,

My understanding of HIV/AIDS was poor. I used to question the language used on HIV/AIDS radio programs. I thought that they were using foul language. For example, before I trained as a peer leader, I could hear from the radio messages that warned the youths to avoid sexual intercourse. I thought that this was foul language and never took the interest to listen.

The knowledge they gained also infused them with hope; prior to the training, many thought that the majority of the population was already infected. One leader observed,

Initially we believed that everybody is infected with the virus, and that there was nothing good for us. After this training, we had some hope, knowing that it is not all of us who are infected, but that there are others who are free. We also learned that even if we may be infected, however, we have our relatives and children who are free. We still can therefore save a lot of people by starting to talk about the disease more than before.

After the training, leaders reported that their increased knowledge of HIV enabled them to teach more effectively. One peer group leader commented, “Before the *Mzake ndi Mzake* training, I used to give health education on HIV/AIDS, but not in detail. Now I am able to give more detailed information. Even my patients can see the difference.”

Changes in HIV-related attitudes—All 18 of the peer group leaders reported attitude changes. Most changes were in one of two areas related to cultural norms: rethinking gender norms and becoming more willing to discuss sexual issues related to HIV transmission. Some male leaders talked about how leading the groups made them realize that by following traditional gender norms, they had put themselves and their spouses at risk for HIV infection. One said,

The initial training made me realize that I as a man was failing in my family. As a man, I thought that I had power over everything. I thought that as a man, I had the freedom to go out and have as many girl friends as I wished. That training made me change my way of thinking, and I realized that the idea was wrong. I realized that it is important to rely on one another in a family relationship. I have learned to be faithful to my wife.

Even though peer group leaders understood the importance of talking about HIV/AIDS, the strong cultural norms that prohibit open discussion of sexually explicit issues made them struggle to find the courage to do this. They also were fearful about how the community would respond to their efforts. One of them said,

Talking about sexuality ... was causing me anxiety in the early days, because people were saying, “This group is obscene! ... You know our culture. These issues cannot be discussed in a group. They are for the bedroom. They are secret!”

Another peer group leader described how the training led her to overcome this cultural barrier in order to protect her children:

I was one of the people who did not know that I can enlighten my own child about this epidemic, but when I started to in the early days when I started learning about *Mzake ndi Mzake* I also realized that it is good that my children should not learn from somewhere, but from me. So I was able to sit with my children and teach them.

One leader described how he would practice talking about these matters to give him confidence in facilitating group discussion of sexuality and HIV transmission.

I had worries concerning how am I going to start teaching such a difficult lesson! Or how am I going to produce such words? What I was doing is, like, I was sitting quietly in my home to give myself time to think about how to approach this lesson. Then I was discussing these difficult words with my wife in the home freely. When I saw that my wife was able to understand what I am talking about and accept it, I was encouraged that other people will also understand.

Another peer group leader overcame this barrier by helping the group understand the rationale and importance of openly discussing sexual transmission for HIV prevention. She explained:

When we are talking on malaria, we talk of mosquitoes ... but when we come to the HIV, can we talk of mosquitoes that bring the HIV? No! But now when we were explaining to them how it [HIV] enters in the bodies [through sexual activity], they would say, "Ah yes, I think you are right." It was important to learn such things.

Changes in personal HIV risk behaviors—Eleven of the peer group leaders reported decreasing their own risky behaviors as a result of taking part in Mzake training. One male peer group leader said, "I spend more time with my family, unlike before, when I spent a lot of time drinking. I am more available, and most of the times if I want to go drinking somewhere, I go together with my wife." Peer groups leaders were not only motivated to change their behavior to reduce their HIV risk, but they also felt it was important to behave as a good role model for others. As one woman remarked:

At the personal level I have changed my behavior and character in order to avoid contracting HIV/AIDS. If someone tries to propose [sex] to me, I tell them to ask someone else and not me. Also as a peer group leader myself, how do I teach others if I do not behave myself? I feel it is important that I must be exemplary in the community and be a good example to others.

Changes in work-related HIV risk behaviors—Seven of the 16 health workers who served as peer group leaders reported changes in their work-related behaviors. Some said that being aware of the work-related risks assisted them to take precautions for their own safety, for example:

The training has helped me to change my behavior and character accordingly. For example, in terms of protective measures, at first I was just carrying out my duties without thinking of protecting myself. I could dispose of needles carelessly, and sometimes I could even get accidental needle pricks. After the training, things have changed. I now know that, if I am careless, I can put my life in danger. I have realized that I should not only do so for myself; I should also give advice to my colleagues.

Work-related changes also included peer group leaders' changed behaviors toward their clients and families. One peer leader commented:

Before, I used to shout at guardians [family caregivers] when they littered their surroundings. However, I learned that these people should be properly shown the right way of garbage disposal to prevent infections. Also the way we used to dispose of garbage was not proper. I learned that it is important to have proper disposal of garbage. And so we dug rubbish pits for that use, in order to prevent infections in our hospital.

Interactions With Others: Continuing HIV Prevention Beyond the Peer Groups

In addition to facilitating peer groups, all 18 of the peer group leaders reported engaging in activities that promoted HIV prevention among others in their communities. They gave examples of activities within their families, outside the family, and at their workplaces.

Facilitating HIV prevention within their families—Sixteen of the peer group leaders mentioned that their HIV prevention efforts extended to their own families. One remarked:

I learnt that the first thing to learn to do was for one to be open with your own family, or with neighbors, so that they can learn something from you. This was a challenge. Hence, the first tangible thing that I did was to break the silence in my own family, and so my wife and I started talking about HIV/AIDS.

Several leaders mentioned that more open communication with their spouses increased their sexual satisfaction and reduced risk-taking behaviors. One peer leader related:

The other [change after becoming a peer group leader] that makes me feel especially good is sexual satisfaction. This has followed the openness that is there between my wife and I, we are able to now know how the body functions.

Another commented:

I was able to help my husband by explaining about HIV/AIDS, and we discussed some of the things that we didn't know. For example, use of condoms. Before the lesson we were having unprotected sex, ignorantly. But after we had learnt, we were told how to use a condom, and this has helped us as a family.

Promoting HIV prevention among family members extended to interactions with their children, in which the leaders overcame cultural prohibitions to discussing sexuality to help their children protect themselves. One peer group leader said:

I recently was able to counsel my daughter together with her boyfriend. Culturally, other people were supposed to counsel my daughter, but I decided to advise them myself, because I know how important HIV/AIDS awareness is. So I told them about transmission and prevention of HIV and how careful they should be in their relationship. I told them the importance of being honest with one another, and I strongly advised them to go for HIV counseling and testing before they get married.

Facilitating HIV prevention with others in their communities—All of the peer group leaders discussed going beyond their role as group leader to carry out HIV prevention with friends, neighbors, and others in their communities. One leader stated:

At my church, I am able to talk freely about HIV/AIDS and its related sensitive issues that most people are not free to talk about at church. I have discussed with the Students Christian Organization at the secondary school and my fellow

women's group where I stay. I have also discussed with my relatives when I have gone to my home village.

Another commented, "I have been doing a lot of things like teaching people on HIV/AIDS prevention and performing plays, drama, poems, and working with different groups and organizations teaching each other HIV/AIDS prevention." Still another said, "Sometimes we find ourselves in meetings, and we give messages about HIV and AIDS, so many people in that area also benefit."

Facilitating HIV prevention in the workplace—Nine of the 16 peer group leaders who worked at health facilities discussed helping to bring HIV prevention to their workplace. As one explained:

I have managed to teach guardians of patients to take care of their patients properly while protecting themselves, so that they don't catch the virus or they don't spread the virus to other people. In addition, how to receive patients we receive them [respectfully] and teach our friends that they should receive patients properly. I look after my friends, ground laborers, so that they should dispose wastes safely and should also be able to wash their hands after they have finished doing their work.

Another leader described how attending peer group leader training led her to advocate for changes in the workplace:

After the training, my colleagues and I met with the Administrator, and we explained what we had learned through the *Mzake ndi Mzake* project, including care of patients. We thought that we should start by working on issues at the health center. We therefore expressed the need for supplies, such as gloves. As a result of our meeting, things like gloves and puncture-proof containers for disposal of sharps have been bought.

Emerging Identity as a Change Agent for HIV Prevention

Developing self-efficacy for HIV prevention—The training and experience that peer group leaders received gradually increased their self-efficacy, or confidence in their ability to talk openly about culturally difficult topics, and led all 18 of them to believe that they could make a difference as HIV prevention leaders in their communities. One leader described becoming empowered to discuss sensitive issues, despite cultural taboos:

At first it was not easy for me to talk to the girls and boys about the sexual program, so only that at first I thought it was not good for me to talk to young girls about the program. You know, because here in Malawi, it was not easy to tell young girls about sexual intercourse so it was very hard for me to talk to them, especially me, as a wife of a pastor.... Later on, you know, it became very easy for me to talk to them and them to present their problems to me. Yes, now it's very easy for me to talk about this to them.

Another stated, "The discussions I have done at my home village are a result of my being a peer group leader. After the *Mzake ndi Mzake* training, I now know what I am talking about, and I talk with confidence."

Developing an identity as a change agent—Through repeatedly facilitating the peer groups, all 18 of the leaders began to see themselves as having a responsibility to act as a change agent in their families and communities. Some leaders emphasized that they felt the need to act, to begin to address the devastation of the epidemic:

I volunteered to become a peer group leader because I saw that we have problems in relation to HIV/AIDS in my area. There are many people who are suffering, and many are dying. Some of our relatives, and even some of our colleagues whom we have worked together here at the health center, have died. I personally have lost many of my family members. I therefore realized that one person or one organization couldn't manage to solve the problems. And so I thought that if we can put our resources together we can help to prevent or reduce the spread of HIV/AIDS.... I realize I have a big responsibility, and that I have a lot of work to do as peer group leader.

Another peer leader noted the importance of bringing the HIV prevention messages to the whole community, rather than to just those who access healthcare services when they're sick:

I found it very good to volunteer myself to teach the community, because as I was teaching these people here in the health center, my message didn't get them well. Because they are not all that come to the health center. So, as I was asked to volunteer myself to be going in the villages, I found it a very good thing, because I know it's where I was to get many patients, many people to be taught about this program. Because, you know, here, we get few people, only when they are sick is when they come here. But as we go into the villages and talk to the leaders, to the parents, to the children, the message is good, because it reaches everybody there.

Many leaders explicitly discussed their need to challenge the cultural norms that discouraged them from discussing sexuality as it relates to HIV. One leader explained:

The other thing that made me to talk in a group on the issues which are difficult to talk about is that I felt like it was not wise for me to fail to discuss something important that will help someone or will help myself from this disease AIDS. I felt like, if I fail to talk or discuss these things, I will destroy a lot of people because of ignorance, but also even myself can be destroyed because of the same ignorance. So, I felt like it was important for me to talk to people and give them information.

Being recognized by others as a change agent—All 18 of the peer group leaders also reported that their friends and neighbors came to recognize them as trusted community resources to whom they could come for HIV-related information and advice. One leader stated:

I have discussed what I learned from the *Mzake ndi Mzake* project with my neighbor. From this discussion, my neighbor and her husband were tested and were found to be HIV positive. My neighbor came back and reported everything to me. She was thankful, because she talked about the free HIV drugs that were to come, and that she and her husband would be among those to receive the free drugs, because they had been for testing.... I am happy with myself, because people come to me very often to ask for some advice.

Another peer group leader was gratified that people acted on her advice:

I know that people use the information that I give them regarding HIV/AIDS.... My fellow women are free to come to me and ask whatever questions they have without fear. They seem to be keen to know more about HIV/AIDS, so that satisfies me a lot.

One peer group leader even reported that her friends gave her the honorific title, *Mlangizi wamkulu* (Senior Counselor).

Peer group leaders were unsure initially whether parents would accept having their children taught about the sensitive issues of sexual transmission of HIV. However, the leaders reported that they eventually gained community approval for taking on this culturally difficult task. One leader commented, “Even the parents were talking to me, thanking me in the job I’m doing for their children, because they saw a great change in them.” The same peer group leader went on to say, “The parents were telling their children, ‘You must go. There is something special there you need to know from those people’.” Another leader described how he took the risk of discussing HIV-related issues with an important committee of leaders in the community:

I started by meeting members of a health committee of one village.... I had just completed the *Mzake ndi Mzake* training program; hence, I took a chance to teach the committee members about issues of HIV/AIDS in the community. Since then, members of the committee often approach me and ask me HIV/AIDS-related questions.

Discussion

Analysis of the peer group leaders’ interviews identified three major themes. Leaders changed their personal HIV-related knowledge, attitudes, and behaviors. They interacted with their family, friends, neighbors, and co-workers to bring HIV prevention to their communities. They described an emerging identity as a change agent for HIV prevention, with increased self-efficacy to discuss sensitive HIV prevention issues, a growing self-identity as a change agent, and recognition by others as a trustworthy advisor about HIV and AIDS. Inductive analysis of these three themes revealed the meta-theme: psychological empowerment. Being a peer group leader had empowered participants to take up the role of HIV prevention leaders in their communities.

A key element in all of these changes was the peer group leaders’ empowerment to challenge the cultural barriers that make HIV prevention difficult. Peer leaders described how they were initially reluctant to discuss culturally taboo issues. Their experiences discussing these issues in the peer group format empowered them to expand discussion of HIV with their family and neighbors outside the boundaries of the intervention. Challenging cultural barriers is widely recognized as both difficult to achieve and a key component of behavioral interventions for HIV prevention (Albarracin et al., 2005; Muula & Mfutso-Bengo, 2004).

One limitation of this study is that the interviewers were clearly identified with the project, although they were not part of the everyday implementation team. Despite assurances of confidentiality, this factor may have influenced participants to emphasize the more positive aspects of their experience. Also, self-selection played a role in the decision to volunteer as a peer leader. Some of the volunteers described becoming a peer group leader as an extension of their prior community leadership. Our cross-sectional study limits our ability to identify changes over time or to determine the degree to which personal empowerment can be attributed to the role of peer group leader versus pre-existing qualities of leadership. However, Christens and colleagues’ (2011) longitudinal study provided evidence that involvement in empowerment activities in organizations and communities can lead to individual empowerment. A further limitation is that the peer group leaders we interviewed included relatively few nonhealth workers. Although the sample achieved saturation for the major themes, a larger number of nonhealth workers might have identified unique characteristics of their experiences. Because we purposively selected to interview persons with substantial experience as peer group leaders, a further limitation is that we did not interview any leaders who withdrew from the project. Over the course of the study, one leader dropped out, and one was asked to withdraw. A future study should include those

who discontinued involvement, as well as peer group leaders who continued for the duration of the program.

The continued activities of trained peer group leaders provided ongoing HIV prevention that may have had effects on the whole community in addition to the direct effects of the intervention. Future research should consider more systematic measurement of these indirect effects over time. These unmeasured activities may increase the long-term effectiveness and cost-effectiveness of delivering peer group interventions.

Implications

The use of the WHO primary healthcare model and the community participatory nature of this approach empowered the peer group leaders to expand their activities beyond the intervention groups and serve as change agents in their communities. Health workers also became advocates for HIV prevention in the clinical setting. The primary healthcare model offers healthcare systems a strategy to increase the impact of community health promotion efforts, despite limited health system resources. This health worker–community collaboration is especially appropriate when promoting behavior change that requires challenging cultural norms.

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- 2012 Global AIDS Response Progress Report: Malawi Country Report for 2010 and 2011: <http://www.unaids.org>
- Progress Report 2011: Global HIV/AIDS Response: http://www.who.int/hiv/pub/progress_report2011/en/index.html

Table 1**Themes, Subthemes, and Meta-Theme ($n = 18$)**

<ul style="list-style-type: none"> • Intrapersonal changes: leaders' knowledge, attitudes and behaviors ($n = 18$) <ul style="list-style-type: none"> – Increased knowledge about HIV and AIDS ($n = 15$) – Changes in HIV-related attitudes ($n = 18$) – Changes in personal HIV risk behaviors ($n = 11$) – Changes in work-related HIV risk behaviors ($n = 7$ of 16 health workers)
<ul style="list-style-type: none"> • Interactions with others: HIV prevention beyond peer groups ($n = 18$) <ul style="list-style-type: none"> – Facilitating HIV prevention within their families ($n = 16$) – Facilitating HIV prevention with others in their communities ($n = 18$) – Facilitating HIV prevention in the workplace ($n = 9$ of 16 health workers)
<ul style="list-style-type: none"> • Emerging identity as a change agent for HIV prevention ($n = 18$) <ul style="list-style-type: none"> – Developing self-efficacy for HIV prevention ($n = 18$) – Developing an identity as a change agent ($n = 18$) – Being recognized by others as a change agent ($n = 18$)
Meta-theme: psychological empowerment to be an HIV prevention leader ($n = 18$)