Published in final edited form as:
Subst Use Misuse. 2010 February ; 45(3): 414–436. doi:10.3109/10826080903452439.

Training Drug Treatment Patients to Conduct Peer-Based HIV Outreach: An Ethnographic Perspective on Peers' Experiences

Honoria Guarino[1], **Sherry Deren**[2], **Milton Mino**[2], **Sung-Yeon Kang**[1], and **Michele Shedlin**[2]

[1] National Development and Research Institutes (NDRI), Center for Technology and Health/Center for Drug Use and HIV Research, New York, NY, USA

[2] NYU College of Nursing, Center for Drug Use and HIV Research, New York, NY, USA

Abstract

From 2005 to 2008, the Bienvenidos Project trained Puerto Rican patients of New York City and New Jersey methadone maintenance treatment programs to conduct peer-based community outreach to migrant Puerto Rican drug users to reduce migrants' HIV risk behaviors. Ethnographic research, including focus groups, individual interviews and observations, was conducted with a subset of the patients trained as peers (n=49; 67% male; mean age 40.3 years) to evaluate the self-perceived effects of the intervention. Results of the ethnographic component of this study are summarized. The role of ethnographic methods in implementing and evaluating this kind of intervention is also discussed.

Keywords

peer outreach; HIV prevention; methadone maintenance treatment; ethnography; qualitative evaluation; intervention evaluation

Background

The literature on HIV prevention peer outreach programs primarily documents the effects of such programs on the wider communities being targeted for outreach. Latkin et al. (2008), for instance, report that a network-oriented peer education intervention targeting injection drug users in Philadelphia, PA and Chiang Mai, Thailand was successful in stimulating discussions of HIV risk by participants trained as peer health educators to their network members; this diffusion of risk reduction messages into active injection drug-using networks is considered useful as it may lead to reductions in risk behavior among network members generally. Additionally, some prior research has demonstrated that peer outreach work can also have a positive impact on those trained to conduct outreach. Within the literature on peer-based interventions for drug users, studies such as Garfein et al. (2007) and Latkin et al. (2003) have demonstrated that drug users trained as peer educators have reduced levels of certain HIV risk behaviors in comparison to control subjects. More specifically, Garfein et al.'s evaluation of a small-group behavioral intervention which “encouraged young adult [injection drug users] to adopt prosocial roles as peer educators” showed a 29% greater decline in overall injection risk behavior for intervention participants relative to controls (Garfein et al., 2007: 1927).

Corresponding Author: Honoria Guarino, Ph.D., Center for Technology and Health, Center for Drug Use and HIV Research, National Development and Research Institutes, 71 West 23rd Street, 8th Floor, New York, NY 10010, Phone: (212) 845-4540, Fax: (917) 438-0894, guarino@ndri.org.

Declaration of interest: The authors report no conflict of interest. The authors alone are responsible for the content and writing of this paper.

Beyond promoting reductions in risk behaviors, participation in peer education interventions can have various psychosocial benefits for individuals trained as peers. For example, Grinstead et al. (2008) show how participation in a peer-based HIV prevention intervention targeting female partners of incarcerated men served to increase women's sense of personal empowerment in their romantic relationships with male prisoners, and Harris and Larsen (2007) describe how HIV positive peer counselors trained to provide counseling and education to individuals newly diagnosed with HIV experienced the work as a rewarding experience that helped give meaning to their own HIV diagnoses. Despite these findings, as Harris and Larsen (2007) note, the exploration of how participation in peer outreach-based health promotion programs affects those trained to conduct outreach within their communities remains a component of intervention evaluation that has received relatively less attention in the literature to date, as compared to studies evaluating the general effectiveness of such interventions. The present study aims to contribute to this facet of intervention evaluation research that focuses on the experiences of peer outreach participants themselves.

From 2005 to 2008, the Bienvenidos Project trained Puerto Rican patients of New York City and New Jersey methadone maintenance treatment programs (MMTPs) to conduct HIV-focused community outreach to migrant Puerto Rican drug users (a group defined for purposes of this study as individuals who had used drugs in Puerto Rico and were currently using drugs in New York or New Jersey). The intervention included an ethnographic component with a two-fold goal – first, to collect data on peers' experiences conducting outreach in order to augment and contextualize the quantitative data collected in the course of the intervention's evaluation, and second, to provide real-time feedback on the intervention's successes and challenges in order to refine subsequent cycles of the intervention. Ethnographic research addressed the following issues: How might participating in the community-based outreach intervention impact MMTP patients trained as peer outreach workers? How might MMTP patients benefit from conducting peer outreach, and what challenges would they face? Results of the ethnographic component of this study – that is, peers' self-reported perceptions of the intervention's impact on their lives and sense of self – are summarized in this paper. In addition, the role of ethnographic methods in both implementing and evaluating this kind of intervention is discussed.

The utility of ethnographic methods in evaluating interventions is becoming more widely recognized in recent literature. Several studies published within the past five years (Hong et al., 2005; Dickson-Gomez et al., 2006; Grinstead et al., 2008; Evans and Lambert, 2008) demonstrate how ethnographically-informed process evaluation in interventions is helpful in refining intervention components to ensure their local relevance for specific target populations and in capturing particular kinds of information, such as participants' lived experiences and their own evaluation of these experiences, that are not readily accessible via the administration of structured survey instruments. Since ethnography is flexible and adaptable to changing conditions, is it also well-suited to the documentation of unanticipated findings and the ways in which differences in local context influence both the implementation and impact of interventions (see, for example, Dickson-Gomez et al., 2003). As will be shown, these qualities were particularly useful in both refining the delivery of and understanding the impact of the Bienvenidos intervention.

The Bienvenidos Intervention

Prior research by our group has found that drug users in Puerto Rico engage in higher levels of HIV risk behavior (both sex- and drug-related) as compared with drug users in New York City (Colon et al., 2001; Deren, Oliver-Velez et al., 2003). Moreover, our research has demonstrated that Puerto Rican drug users who migrate to New York City continue to engage in riskier behavior vis-à-vis other drug users in New York City (Deren, Kang et al., 2003). In

light of these findings, the four-year multi-level intervention known as the Bienvenidos Project was developed with the purpose of decreasing HIV risk behaviors and increasing HIV-related knowledge among migrant Puerto Rican drug users living in the greater New York City area. Because ethnographic data from our earlier research indicated that many migrants report migrating to New York City from Puerto Rico for the specific purpose of obtaining methadone treatment (due to the relative paucity of drug treatment services in Puerto Rico), the decision was made to situate the Bienvenidos intervention in methadone maintenance clinics in the greater New York City area (i.e., New York City and New Jersey). Furthermore, training patients in MMTP clinics who were familiar with drug use practices in Puerto Rico to conduct outreach to migrant drug users from Puerto Rico could also provide credible role models for active users.

The Bienvenidos intervention was conducted in one pair of methadone maintenance clinics per year for four years. Both clinics in each pair were contained within the same administrative system, but located within geographically distinct neighborhoods, and all clinics had substantial proportions of Puerto Rican patients. The study used a group randomized design with one clinic in each pair randomly assigned to the Intervention condition and one clinic randomly assigned to the Comparison condition. Of the eight clinics participating in the intervention, six were located in New York City and two were located in New Jersey. On the programmatic level, MMTP staff in the Intervention clinics received a 10-hour multi-session training on the risk behaviors and related service needs of migrant Puerto Rican drug users. On the peer level, MMTP patients in Intervention clinics received a 35-hour training on conducting HIV risk-reduction outreach to migrant Puerto Rican drug users. Content areas and exercises covered in the peer training included: an overview of HIV and hepatitis C facts; discussion of outreach strategies and available resources; role plays to practice outreach skills; and supervised practice conducting outreach in the community. After being trained, peer outreach workers conducted 12 weeks of supervised outreach to migrant Puerto Rican drug users in their communities for up to15 hours per week, receiving an hourly stipend. Peers were placed in teams of two for purposes of conducting outreach (in a few cases, more than two peers were teamed together). Peers' street outreach activities consisted of distributing risk reduction supplies (including male and female condoms, dental dams and bleach kits) and HIV/hepatitis C prevention literature, engaging migrant drug users in discussions of HIV risks and prevention techniques and providing service referrals where indicated. (For a fuller description of the intervention's implementation, see Colon, Deren, Guarino, Mino, and Kang (2010; in press). Preliminary findings from analyses of quantitative data have been presented (e.g., Deren et al., 2006a and 2006b) and manuscripts are currently in preparation.)

Methods

Intervention participants

In order to be eligible to participate in the Bienvenidos intervention, patients were required to be enrolled in MMTP for at least 6 months, be bilingual in Spanish and English, be familiar with drug use in Puerto Rico (either through personal experience using drugs in Puerto Rico or through the experience of a friend or family member) and could be currently using or not using drugs. Recruitment occurred through recommendations by MMTP staff at each clinic, followed by screening by the field site coordinator. Of the 80 MMTP patients recruited to participate as peers in Intervention clinics over the four cycles of the intervention, 63 (79%) attended at least part of the training, 56 (70%) completed the entire training, 49 (61%) completed training and participated in some outreach activities and 39 (49%) completed the entire intervention (that is, the entire training and all 12 weeks of outreach).

The 49 participants who completed training and, at minimum, a portion of the 12 weeks of outreach are the focus of the present ethnographic analysis; not only did these individuals

participate in a substantial portion of the intervention, they are also represented in at least one of the three forms of qualitative data (as explained below). Baseline background characteristics of these 49 participants are presented in Table 1. As is evident in these demographic data, participants faced a number of challenges when they began the intervention including low educational levels (51% having less than a high school diploma or GED), little formal work experience (only 12% employed full- or part-time at baseline) and ongoing substance use (43% testing positive for cocaine or heroin at baseline). Yet, on the whole, these challenges did not present insurmountable barriers to their successful participation in the Bienvenidos intervention. Indeed, as a group, participants possessed several strengths that made them well-suited for conducting peer outreach among migrant Puerto Rican drug users including network ties to active drug users in the migrant Puerto Rican community and enthusiasm for and commitment to improving their community.

Ethnographic Data Collection

Three qualitative data collection methods were employed during each of the four years or "cycles" of the intervention: observations; focus groups; and interviews. All observations, focus groups and qualitative interviews were conducted by the first author, a trained ethnographer. In total, across all four intervention cycles, the ethnographer conducted approximately 450 hours of fieldwork. Procedures for each form of data included in this paper are outlined below.

Observations—All peer training sessions were observed with detailed field notes recorded during these activities. In addition, during the 12 weeks of peer outreach, the ethnographer periodically attended peers' weekly supervision sessions with the study's field site coordinator (these sessions included both a team meeting and an individual session with each peer outreach worker) to observe and conduct informal interviews. Each peer outreach team supervision session was observed on a monthly basis – once during the first month of outreach, once during the second month of outreach and once during the third and final month. In these meetings, peers discussed with the field site coordinator and ethnographer any challenges or barriers to conducting outreach they had experienced as well as any personal issues which might impact the work. Field notes were recorded during and immediately after each observation session.

Focus Groups—In each of the four project cycles, a focus group session with peer outreach workers (n=30) was conducted by the ethnographer one month post-intervention. All peers who were actively participating in the intervention at the conclusion of the outreach period were invited to participate in this focus group session. Focus group sessions were conducted at the project's field site office and peers were compensated $30 for their participation. Topics covered included: peers' perceptions of the outreach training and their subsequent knowledge of migrants' risk behaviors and service needs; the satisfactions and challenges peers experienced conducting outreach (including the potential for relapse); and the extent to which functioning as a peer impacted peers' lives (including their relationships with MMTP staff and fellow patients). In cycle 2, a second focus group was conducted with peers 6 months post-intervention to assess any enduring effects of the intervention on peers and these data are also herein included.

Qualitative Interviews—One to two months post-intervention, the ethnographer also conducted semi-structured individual interviews with peers (n=22) – including peers who completed the intervention (n=16) as well as peers who dropped out of the intervention after completing a portion of training and/or outreach (n=6). Of these 22 interviewees, 11 individuals also participated in post-intervention focus groups while11 did not. Among participants who completed the intervention, two of the most successful peers and two of the least successful peers per project cycle, as assessed by the field site coordinator and the ethnographer, were

contacted in person or by phone and asked to participate in an individual interview. Particular efforts were also made to interview any intervention completers who were unable to attend the post-intervention focus group session. While the topics covered in these interviews were similar to those covered in the focus groups, it was thought that the difference in interactional format and setting might produce different data – that is, peers might be willing to discuss certain issues, such as conflicts with their outreach teammates or problems with relapse, in the context of a private, one-on-one interview which they might be reluctant to broach in the group setting of a focus group session. All peers who dropped out of the intervention after completing a portion of training and/or outreach were contacted by mail and/or phone to request their participation in an individual interview; these interviews explored peers' reasons for discontinuing the intervention, any barriers to participating they experienced and what additional forms of support, if any, might have helped them complete the intervention. All interviews were conducted in a private office at the project's field site location and peers were compensated $25 for each interview. Demographic characteristics of focus group and interview participants were similar to the overall sample; that is, focus group participants (n=30) were 60% male with a mean age of 39.6 years, while interviewees (n=22) were 59% male with a mean age of 41.4 years.

Data Analysis

All focus group sessions and interviews were audiotaped and subsequently transcribed verbatim. An initial coding scheme was developed (using cycle 1 data) in consultation with the project's senior qualitative methods advisor, Dr. Michele Shedlin. Transcripts and field notes were then coded thematically by the ethnographer, considering both themes related to the initial project aims as well as emergent themes – that is, themes not specifically anticipated prior to the conduct of this research but salient in the ethnographic dataset. (No software program was used for the textual coding.) The resulting data were analyzed by means of an iterative, comparative process influenced by “grounded theory” (see Glaser and Strauss 1967; Strauss and Corbin 1998) in which transcript and field note passages illustrative of each of the thematic codes were repeatedly reviewed and compared, with particular attention paid to the most common themes (i.e., those which emerged repeatedly and were voiced by multiple participants in different project cycles) that represented perceived benefits and challenges of intervention participation.

Results

On the whole, patients trained as peers enjoyed conducting peer outreach and reported benefiting from the training and outreach program in a number of ways (c.f., Guarino et al, 2006 and 2007). Indeed, the majority of experiences reported by participants were positive, although some difficulties were also experienced – especially with regard to separating from the intervention when the research cycle concluded. During both formal interview and focus group sessions, as well as in casual conversation with the ethnographer and the field site coordinator, participants often spontaneously volunteered that they greatly enjoyed peer outreach work and felt that the intervention had benefited them. However, targeted probing during interviews and focus groups was typically necessary to elicit more specific information on the particular aspects they found most beneficial. A summary of the benefits of intervention participation as perceived by peer participants is presented below, followed by a summary of the challenges experienced by peers in conducting outreach, along with a description of enhancements that were effected early in the intervention in an effort to address some of these challenges.

Benefits of Intervention Participation as Perceived by Peers

Enhanced Self-Esteem and Self-Confidence—Among the most common benefits cited by peers was the enhanced sense of self-esteem they experienced as a result of conducting street-based outreach in their communities. Simply having a regular, structured activity to occupy their time – an unfamiliar experience for many of the intervention's participants – was a self-esteem booster. This sentiment was expressed by a focus group participant who explained,

> You wake up every morning with something in your mind you're going to do, you know…It gave me something to dress up for…and I met people.
>
> (Rosa[1]; female; age 54)

Importantly, conducting outreach was experienced as interesting, meaningful work from which peers derived a sense of purpose. Said one, "It gets me out of the house, doing something I like to do." In the words of another, "…knowing I got this responsibility…I got a purpose, I got to stay out of trouble."

Peers also attested to the self-confidence boost they derived from gradually coming to master tasks and roles which they had initially experienced as challenging. In the words of one participant,

> I was very shy and I didn't think that I could do it, but when I got out there, I liked it so much that I talked to a lot more people than [I thought I would]. So it helped me, so now I know that I can do it, you know? (Maria; female; age 23)

Another dimension of the increased sense of self-esteem peers experienced while conducting outreach was the satisfaction they derived from knowing that they were helping others, particularly others like themselves – that is, people of Puerto Rican descent struggling with substance abuse. Several peers used the phrase "giving back to my community" in reference to this benefit of outreach participation; for example, one peer stated that doing outreach made her feel "like I'm doing something positive. I'm helping myself and my community."

Being seen by others – both fellow patients in their MMTPs and community members in the streets of their neighborhood – as role models with expertise also functioned to increase peers' sense of self-worth. In the words of one, "That's a good feeling, people coming up to you, asking you for help." Because of the specialized and locally useful knowledge they held, peers were able to feel needed; as another peer noted, "There's people out there counting on me." Beyond feeling useful, peers also gained a sense of pride as members of their local community witnessed them enacting an "official", expert role. Two focus group participants explained:

> Peer 1: …What I enjoyed most about it was…that other people…whatever they thought about me [before], when they see me [doing outreach] they have a different outlook over me now.
>
> Peer 2: That you're not a waste, that you're somebody good.

Increased Motivation for Vocational Activities—For some peers, participating in the intervention increased their motivation to engage in structured vocational activity after the intervention ended. In the words of one peer, "…it put a hunger in me to learn more…It helped me out…it made me want to do more." The sense of mastery they gained by conducting outreach and by their ability to successfully complete the program helped some peers envision a brighter, more rewarding vocational future. As another peer participating in a post-intervention focus group described it, "I know [now] that I could do something else…I know

[1]In order to preserve participants' confidentiality, all names have been changed.

that I could get into this…I could become a counselor." While many peers did not readily parlay this motivation into concrete action, a subset were able to transition to longer-term vocational activities after the intervention ended; some obtained paid employment, some began additional peer education training programs, and a few sought education including computer classes and a training program leading to certification as a substance abuse counselor.

Enhanced Communication Skills—An additional benefit of outreach commonly cited was interactional in nature. Several peers highlighted improved verbal communication skills as a benefit they gained from participating in the intervention. According to them, these skills were learned both by practicing specific communication techniques during the role play exercises that were part of their initial outreach training and by using these new techniques on the streets of their community. One male peer explained how conducting outreach helped him to become more comfortable expressing himself verbally:

> I came out of the closet a little bit more as far as talking with people in the streets… Like I always wanted to help people but didn't know how to express myself…so I learned how to express myself a little better. (Angel; male; age 42)

For many participants, repeatedly approaching and engaging strangers on the street and discussing potentially sensitive topics with them, while initially difficult and awkward, gradually led to an increased comfort interacting with others. As peers experimented with various strategies for gaining the attention and holding the interest of strangers, they learned how to interact more effectively with others – valuable skills which many said they were able to apply to their lives more broadly. For example, the peer quoted above explained how he became a better listener and less directive in his interactions with others:

> You know what I learned? How to interact a little bit better with people…Because like one thing that I used to do, is that when you talk to somebody, instead of listening, you like tell them what you would do, like telling them what to do instead of listening to them.

Another peer offered that doing outreach helped him learn how to back down from a confrontation; by deploying this newly acquired skill to other areas of his life, the quality of his personal relationships improved. In his words:

> "It's hard for me to put my head down and walk away from somebody disrespecting me because I've never done that. I'd rather get my ass kicked than let people disrespect me, but I did it. I did it a couple of times. So it's making me grow as a person. Not only am I helping them, I'm helping me grow as a person because I did a lot of things that I never thought I would do."
>
> (Carlos; male; age 36)

Developed Relationships with Team Members—Several participants also referenced the mutually supportive relationships they developed with their fellow peers, especially members of their outreach team with whom they interacted on a regular basis, as a distinct benefit of participating in the intervention. As one peer described his relationship with his outreach partner:

> "Me and the person I was working with, we really helped each other…me and her still have each other's phone numbers. And she sent me to therapy…and from there I went to the needle exchange program [for a peer educator training] because of *her*. And then I helped her with her legal issues and so we've *really* helped each other out…Because that's really doing peer work…One peer helping another peer." (Pedro; male; age 35)

Challenges that Emerged While Conducting Outreach

Impact on Substance Abuse—While the benefits of intervention participation detailed above applied to the majority of peers who completed a substantial portion of the program and applied fairly equally to peers from each of the four cycles of the intervention, other positive effects were more variable in their distribution and, for some peers, became challenges.

For certain participants, the structured activity provided by the training and outreach program, along with the increased sense of self-worth they derived from it, enabled them to reduce or control their ongoing substance use (for those who were using drugs during the intervention) or reinforced their commitment to sobriety (for those who were not active substance users at the time of their intervention participation). Some peers attested that conducting outreach helped them avoid substance use because it kept them occupied, gave them a sense of purpose and a visible role in the community. Moreover, interacting with active drug users in the community and witnessing the potentially devastating effects of substance use on other individuals strengthened several peers' desire to become or remain drug-free and to become more mindful of and committed to using drugs more safely. In the words of one participant:

> I'm also more aware, you know, when I'm doing something [i.e., using drugs]. I dip and dab once in a while, and I'm aware of more when I'm fixing up things and stuff of what is not to be done, what is to be done. And it's also helped me with lowering my abuse a little more and setting up some goals and stuff. I see the situation that some people are in out there, and it's not [good].
>
> (Ernesto; male; age 53)

Similarly, another peer explained that:

> …when I started seeing the *same* people that were out there when I was out there, it was like 'Wow! I could still be right there.' And I have so much that I've accomplished, you know what I mean, with like life, just being clean…it's like I'm grateful for it because like I could still be out there, still in a two-block radius. (Milagros; female; age 45)

As noted above, however, there was a significant degree of variation by individual with regard to the perceived effect of outreach participation on one's recovery status. Some peers felt that certain elements of outreach participation – specifically, interacting with active substance users, exposure to the bleach kits that were among the risk reduction materials distributed, or simply hanging out on the street – functioned as potential triggers for relapse to drug use. As one peer elaborated:

> The first thing that bothered me was the first few days standing in the street. I haven't stood on a street corner for years, and when I first did it, it felt uncomfortable…I related standing in the street to…not having nothing to do with my time, being unemployed, lazy, that whole drug scene. (Pedro; male; age 35)

Nevertheless, although certain peers experienced elements of their outreach work as substance use triggers, they did not necessarily act on these urges. Even for the same individual, the outreach experience occasionally exerted countervailing effects with regard to substance use. In the following passage from a focus group transcript, a female peer details the gradual evolution of her experience of outreach as a trigger:

> Actually, for me, like in the beginning, it was kind of hard because every time I was out there, especially like, you know, my stomping ground where I used to get high and everything, I would start thinking about all the good times. It would take a minute for me to really think about the bad times…so like a couple of times I had to like

> really get on the phone and call someone or really just take, fall back and just really think about my experience." (Milagros; female; age 45)

At this point, an outreach team member of hers interjected, "Well, being with me, she wasn't going to do nothing." The first peer ratified her team member's assertion, saying, "Oh, yeah, yeah, you know, she would talk to me and help me out…" This exchange serves as further illustration of the mutually supportive, even protective, nature of some peers' outreach partnerships. Other peers devised creative strategies to manage the triggers they encountered during the course of their outreach activities; for instance, one peer found that by putting the bleach kits she distributed into brown paper bags, so that she no longer had to see the cookers, she was able to successfully control her urges to use.

Impact on Relationships with MMTP Staff—There was also variability in the impact of outreach participation on the peers' relationships with the staff members of their MMTPs. While to some extent this effect varied by individual, to a much more significant extent, it varied by location – that is, improved relations with clinic staff were described by peers in certain clinics but not others. The extent to which peers perceived clinic staff as supportive thus appeared to be a function not only of individual patients' degree of alliance with staff members, but also of the overall institutional culture of particular clinics. For example, one clinic was perceived by the majority of peers as supportive of their efforts, due, in no small measure, to the behavior of the clinic director who made a point of providing verbal encouragement to individual peers in his clinic. In those clinics in which staff members were particularly receptive to and enthusiastic about the intervention, peers typically felt that participating in the intervention functioned to increase staff members' level of respect for them and interest in helping them achieve additional personal goals. For example, in the following excerpt from a focus group session, two peers from one of the Intervention clinics explain how staff members' attitude towards them changed once they began participating in the intervention:

> Peer 1: I find also that [staff] seemed to have more respect—
>
> Peer 2: There you go.
>
> Peer 1: —towards us now, being that we were involved in this peer outreach program, and that to me made me feel good…
>
> Peer 2: And they saw that we could go out there too and help people.

Another peer from the same MMTP elaborated on this experience in an individual interview, explaining that:

> [Staff members] started looking at me different…they even spoke to me and told me, 'You look much better…ever since you did that peer thing'…It makes me feel good… It made people see that I'm there, that I have a plan…so it was like an awakening for me, you know? (Luz; female; age 53)

In contrast, another clinic was perceived by most of its peer participants as unsupportive. This lack of support was experienced by peers in a range of ways from an absence of verbal encouragement from the frontline staff with whom they came into contact on a daily basis, to specific institutional policies that peers felt impeded their participation in the intervention (most notable, not being allowed to come in to the clinic to be medicated during early-morning hours typically reserved for working patients on days peers were scheduled to participate in intervention trainings, conduct outreach or attend their "graduation" from the program). Peers described staff of this clinic as almost uniformly pessimistic about their ability to successfully complete the intervention and to derive any useful benefit from it. In the following focus group segment, peers from this clinic express their disappointment in clinic staff's lack of encouragement and apparent lack of faith in their ability to be effective peer outreach workers.

Peer 1: [Staff] didn't expect us to even complete it, you know…?

Peer 2: …nothing uplifting, nothing…

Peer1: Nobody giving no encouragement.

Peer 2: No encouragement. Just what was going to be bad.

These distinct institutional cultures in turn shaped staff members' opinions about which of their patients would make appropriate and effective peer outreach workers. In those clinics perceived by peers as generally supportive of their intervention participation, staff members tended to have a more open and accepting attitude about whether patients who are using substances could be effective peer outreach workers. Contrasts in staff attitudes and institutional cultures across clinics were also readily observed by the ethnographer and other project staff as differences in levels of cooperation and enthusiasm for the project, and a differential focus on the presumed dangers of outreach work for clients (i.e., the potential for relapse) versus its potential benefits.

Difficulty Approaching Strangers—Other challenges were experienced by the majority of intervention participants across multiple clinic locations. On an interpersonal level, many peers reported feeling uncomfortable approaching strangers on the street to provide them with HIV risk-reduction information, especially since engaging individuals in discussions of HIV risk necessitated broaching sensitive, even taboo, topics such as sexual behavior and drug use. This discomfort was particularly an issue for male peers attempting to approach women. Said one,

> At first I didn't even know how to approach women about female condoms and stuff like that, but then I heard other [peers] what they were doing and what happened with them, and I tried it and it worked." (Carlos; male; age 36)

Relatedly, many peers also had difficulty coping with the occasional rejection they encountered on the streets of their communities as they tried to deliver risk reduction materials and information to migrants who were not interested in what they had to offer, or were affronted by their overtures. Below, two focus group participants describe how their offers of supplies and information were sometimes met with unexpected and overt hostility:

Peer 1: it was a shock to go out there…dealing with people's reactions.

Peer 2: And negativity…

Peer 1: …And they berated you and they made you feel kind of…bad.

Peer 2: Like if you were begging for something…

As the statement of the male peer quoted above demonstrates, these interpersonal challenges were most pronounced in the early stages of the outreach phase; as peers gained practice in the field and grew accustomed to the various kinds of reactions they could expect, they typically became more adept at negotiating potentially uncomfortable interactions and learned to take the occasional rejection they faced less personally.

Adjusting to Structure of Doing Outreach—Because the majority of peers had little if any formal work experience at the time of their participation in the intervention, conducting structured and supervised "work" for the first time presented a formidable challenge for many. Many peers had difficulty adhering to a regular schedule of outreach activities and supervision appointments – a fact which created logistic snafus not only for project staff, but also for the peers' outreach teammates. Those who did adhere to their prearranged schedule frequently became frustrated when they were required to wait for late teammates or reschedule outreach activities when teammates failed to appear.

Setting Realistic Goals for Outreach—Peers were also challenged to define appropriate and realistic goals for their outreach activities. In all four cycles of the intervention, there emerged a disconnect between what the research team understood the goal of peer outreach to be and how peers themselves viewed their role. Rather than seeing themselves as spokespeople for "harm reduction" whose role was to provide migrants who were active substance users with HIV risk reduction information and supplies, as had been the intention in designing the intervention, peers tended to see themselves as agents of behavior change – that is, as role models-cum-counselors who could induce community members to stop using illicit substances, enter drug treatment programs or adhere to their antiretroviral medication regimens. Because peers set such high goals for their outreach work, goals that often ran counter to the principles of harm reduction, peers often felt a sense of frustration and personal failure when those substance users to whom they gave information and service referrals failed to make immediate and major behavioral changes. In the following passage, a peer describes her frustration with an HIV-positive community member who rebuffed her offers to accompany the woman to a doctor and failed to heed her advice to begin taking an antiviral regimen:

> …where we live there's a girl that has HIV, and …she will *not* go get her medication… And I told her, 'You need to take your medication because that's going to prolong your life. You can't just be in denial.'…I tell her, 'you know that offer still stands whenever you want me to take you to the [doctor], I will take you and I will sit there with you and hold your hand.'…She doesn't want to go…I tried, I tried to tell her, but she's not listening to me… (Milagros; female; age 45)

It was necessary for project staff to continually encourage peers to adjust their goals, reminding them that the primary purpose of their peer outreach work was to educate substance users in a non-directive manner, not to exhort them to change their lives. As a result, some peers were able to gradually accept a more limited role and to appreciate more modest successes; as one peer described this process of goal readjustment:

> …I had to slow down. Because I wanted to be just like, 'Here, this is the information.' I wanted them to just grab it. 'Thank you! I've been waiting for you! The light, I've finally seen it!' And it wasn't like that…I had to just see people at their level. Like all right, what I do some people can't do, and what they do, I probably can't do. (Pedro; male; age 35)

Many other peers, however, retained their original goals, paramount among which was the desire to "get users into treatment". For example, after his participation in the intervention had concluded, one peer assessed the effectiveness of his outreach work in this way: "…the main thing that I did was put two or three people in the methadone program, our program."

Separation at End of Intervention—Most participants in all four Intervention clinic locations experienced difficulties separating from the project as the intervention came to an end. During their last few weekly supervision sessions, peers voiced increasing levels of trepidation about the impending end of the intervention; many feared that that all the gains they had achieved during the project would be lost and that their ensuing disappointment could even cause them to reverse the progress they had made. In their post-intervention focus group sessions and interviews, peers cited a number of concrete challenges they faced in the wake of the intervention's conclusion; these challenges included: the sudden absence of the regular structured activity – and the weekly "paycheck" – provided by the training and outreach program; feelings of depression; the loss of the social support system provided by project staff and their fellow peers and outreach teammates; and difficulty transitioning to alternative structured vocational activities such as paid employment, volunteer work or further peer-related training. These concerns were addressed through discussions with the peers in their

supervision sessions. Peers were also encouraged to follow up with referrals to their MMTP program staff (e.g., counselors) and to job training programs in their communities.

The Role of the Ethnographic Component in Refining the Intervention

Based on the feedback provided by peers participating in earlier cycles of the intervention, several modifications were made to the training and outreach program in order to enhance the training experience. The use of ethnographic data for the purpose of refining subsequent cycles of an intervention is a novel approach to intervention research and implementation, and is one of the innovative aspects of the Bienvenidos project.

Enhanced Training Components—Based on input from cycle 1 participants, the initial training on basic HIV information and outreach methods provided to peers was lengthened from three and one-half days to five and one-half days for the subsequent three cycles in order to devote more time to both a presentation of factual information on HIV and other disease transmission dynamics as well as additional "hands-on" training in street-based outreach strategies.

Expanding on Hepatitis and STIs—In direct response to the holistic conceptualization of health and risk peers reported encountering in the community, additional information concerning hepatitis C and other sexually transmitted infections was incorporated into this initial training. According to peers, the migrant Puerto Rican substance users with whom they conducted outreach understood HIV as but one factor within a complex of risk that included hepatitis, STIs, tuberculosis and other needs. Therefore, in addition to expanding the "HIV 101" component of the training, information about diseases with similar transmission dynamics as HIV was added to the training curriculum.

Enhanced Training on Approaching Strangers—Because of the specific challenges encountered in the course of conducting street-based outreach, such as discomfort approaching strangers to discuss sensitive topics and difficulty coping with rejection, the peer training curriculum was expanded to incorporate more targeted training on outreach strategies and potential challenges. For example, additional role play exercises were added to the program to give peers an opportunity to practice various scenarios they might encounter in the field, and specific techniques for coping with rejection were added to these role play exercises. Also, trainer presentations and group discussions were developed to address topics such as developing realistic goals for outreach and managing triggers for drug use encountered during street outreach work – topics which early peer participants had identified as particular challenges.

Addition of "Booster" Sessions—The final enhancement made to the intervention in response to peer feedback was the addition of two "booster" training sessions per intervention cycle, added at the end of the first and second months of the outreach period. These sessions were implemented in the last three cycles of the intervention in response to input from cycle 1 peers who indicated in interviews and focus groups that they would have appreciated regular, structured opportunities to interact with the entire group (not just their outreach teammates) for mutual support and brainstorming. The primary goal of these booster sessions was thus to provide peers with a forum for sharing their experiences, strategies and practical advice regarding outreach techniques with each other after they had gained some firsthand outreach experience. A secondary goal of the booster sessions was to review key topics and to reinforce skills that had been covered in the initial outreach training. In the first booster session per cycle, time was devoted to a review of substantive information on HIV, hepatitis and STIs, and an airing of any difficulties peers might have experienced in the field, while the second booster session in each cycle included explicit discussion of how peers might effectively prepare for

the conclusion of the intervention and replace the outreach work with other constructive activities.

While we were unable to make more significant changes to the training and outreach program given the research context of this intervention, peers' feedback did highlight some additional ways to improve similar peer outreach interventions in the future. For example, future interventions might usefully integrate “in-the-field” training exercises into peers' initial outreach training curriculum and deploy periodic field-based supervision sessions.

Discussion

Retention in the Intervention

While it is evident from peers' own feedback that the Bienvenidos intervention impacted the lives of many participants positively, some clear limitations and areas for improvement merit discussion. Paramount among these is the amount of resources necessary to maintain the participation of a relatively small number of patients. Because of the intensive nature of the intervention as well peers' personal problems, there were significant rates of attrition in each of the four project cycles; only about one-half of the MMTP patients initially recruited to participate as peers ultimately completed the intervention (i.e., 39 (49%) of the 80 patients recruited completed all training and outreach). Participants' stated reasons for dropping out included: illness and chronic disability that impeded mobility and made outreach difficult; scheduling conflicts with welfare and social service appointments; family crises; child care obligations; and incarceration. Intensive effort on the part of project staff, including frequent follow-up phone calls and letters to maintain peers' attendance, as well as flexibility in scheduling intervention activities, was necessary in order to keep even these 39 peers engaged in the intervention. As a result of these efforts, however, 80% of those peers who began outreach did complete the entire intervention. Moreover, a near 50% dropout rate is not atypical for interventions targeting drug users; for example, Garfein et al. (2007) report a similar rate of attrition for a small-group peer education intervention for young injection drug users conducted in five U.S. cities, although its curriculum, consisting of only six two-hour sessions conducted over a three-week period, was substantially less demanding than the Bienvenidos program. These findings suggest that peer intervention programs targeting active substance-using populations may need to plan for a dropout rate approaching 50%.

Maintenance of Intervention Gains

While most peers who participated in at least a portion of the outreach did experience some positive effects, such as self-reported increases in motivation for vocational activities, only a relatively small number were able to parlay these perceived benefits into concrete life changes during the study's follow-up period. At the time of post-intervention focus groups and interviews, only 8 participants had successfully transitioned to longer-term vocational activities, although a number of peers expressed a desire to do so. Of these 8 individuals, three began longer-term peer education training at the conclusion of the intervention; three others gained full-time employment as a direct result of participating in the intervention; one person began training to become a certified substance abuse counselor; and another began taking computer classes in a community center adjacent to the project's field site office. Although these numbers are small, when considered in the context of both the extremely low rates of formal employment for clients of MMTPs (Magura et al., 1999) and the limited success of traditional vocational rehabilitation programs for methadone-maintained patients (Blankertz et al., 2004; Magura et al., 2007) they appear promising.

Of those peers who were able to transition to longer-term vocational activities post-intervention, not all were able to sustain these gains. For example, just before his participation

in the intervention was to conclude, one of the project's most enthusiastic and dedicated peers secured a full-time paid position as a peer outreach worker at a local harm reduction agency; however, after less than two months on the job, this individual was arrested and subsequently lost the position. This example points to another potential limitation of the present intervention – namely, the uncertain maintenance of the positive effects experienced by MMTP patients trained as peers. Since most of the positive changes discussed herein have been assessed in the short-term only (that is, within one month post-intervention) and longer-term ethnographic data for this intervention is quite limited (i.e., in cycle 2 one additional focus group was conducted with peers 6 months post-intervention), qualitative data are not available on the extent to which the salutary changes experienced by peers during the course of the intervention have endured. Moreover, participants' anxiety over the impending end of the intervention that is detailed above, as well as their desire for a longer period of outreach, was a continuing problem our team grappled with and is likely an inherent difficulty in any short-term intervention such as this. The single most common suggestion offered during post-intervention focus groups and interviews was an exhortation to make the intervention longer. Given the complexity of MMTP patients' lives and the limiting influence exerted by the structural and institutional contexts in which their lives are embedded, one could reasonably question whether it is realistic to expect a short-term intervention to produce lasting changes.

Resources Needed for Maintenance of Gains

These findings suggest that in order for longer-term change to occur, the continued dedication of resources would be required. For instance, several participants revealed that they did not follow through with post-intervention vocational referrals because there was no longer anyone available to guide them through the process and keep them motivated; MMTP staff are typically overburdened and lack the time and financial resources to take on the additional roles and responsibilities that may be necessary to maximize the impact of short-term interventions for their patients. Despite these structural limitations, the findings point to certain measures that could be taken by a short-term peer intervention situated in a clinic in order to bolster the durability of the positive effects experienced by peer participants. Intensive assistance to help interested peers transition to other peer education programs, volunteer work, or paid employment when an intervention ends would be of considerable utility. This might be achieved in part by the establishment of a formalized referral mechanism in which dedicated slots in peer leadership training programs at other agencies, for example, are reserved for intervention “graduates” and staff resources are dedicated to following up with peers to increase the likelihood that they act on such referrals. In addition, since vocational counseling is limited or nonexistent at many MMTPs, an intervention might usefully hire a vocational counselor to work one-on-one with peers as the intervention is coming to a close to provide those who are interested with information about and referrals to subsidized vocational programs such as VESID (Vocational and Educational Services for Individuals with Disabilities, a program of the NYS Education Department), and to provide individualized assistance with volunteer, training and job applications.

Limitations of Data

Some limitations specific to the ethnographic data upon which this paper relies should be noted. First, the data are limited in their generalizability. The Bienvenidos study trained a very specific group of individuals – namely Spanish-speaking individuals, almost all of whom identified as Puerto Rican and who were patients of a New York City-area MMTP – to conduct outreach to migrant Puerto Rican drug users in their communities. Whether or to what extent the experiences of these participants in this particular peer outreach intervention are generalizable to different groups of participants in other peer outreach interventions is unknown. Moreover, the observational, interview and focus group data upon which this paper is based were collected from a specific subset of intervention participants – that is, peers who completed a substantial

portion of the intervention. Therefore, it is not clear to what extent the intervention benefits and challenges reported by this group of "successful" peer participants are applicable to participants who dropped out in earlier phases of the intervention. Second, as is the case with much ethnographic data, the interview and focus group data are self-reported and thus subject to inherent bias. However, the explicit goal of the ethnographic component of this study was to investigate peer outreach workers' lived experiences, and it should be emphasized that the claims made in this paper are confined to peers' own perspectives on the benefits and challenges of intervention participation as they experienced them.

Finally, further systematic research is needed to investigate possible sources of the observed variation in participants' experiences of a peer outreach intervention such as the Bienvenidos Project. What specific individual-level factors allow some participants to derive greater benefit from a peer outreach intervention than others? And what institutional-level or other contextual factors function to enhance or hinder the effectiveness of a clinic-based intervention?

Recommendations

Despite the limitations, our group's experience implementing the Bienvenidos intervention points to several recommendations for similar peer-based interventions.

1. Ethnographic Research Useful in All Phases of Intervention—Ethnographic documentation is a valuable component of intervention research with a role to play in all phases of an intervention, not only in outcome evaluation where it has been more commonly used (Dickson-Gomez et al., 2006), but also in intervention design and implementation phases. Although some recent HIV-focused peer education interventions such as the DUIT project described by Purcell et al. (2007) have utilized discrete qualitative data-collection techniques such as focus groups for the limited purpose of revising intervention content, a more comprehensive integration of ethnographic methodologies throughout the course of an intervention has been less commonly done and represents a novel aspect of the present study. During the implementation phase specifically, ethnography is useful for gaining insight into intervention participants' experiences and perspectives; indeed, understanding this insider's perspective is one of the unique strengths of qualitative research. Qualitative/process documentation also has a unique ability to provide real-time feedback on interventions and can thus be useful in fine-tuning later stages of an intervention based on participants' own feedback.

2. Importance of Documenting Local Context—As noted by Latkin et al. (2008) and Evans and Lambert (2008), in their recent evaluations of peer-based HIV prevention interventions, the local context in which an intervention is implemented is an important factor influencing an intervention's success and thus contextual differences should be documented. The four Intervention MMTP clinics participating in the Bienvenidos study varied in their organizational culture which was reflected in staff members' distinct attitudes towards the intervention as a whole and towards peer participants. In different clinics, staff members had differing views of whether their patients could get engaged in the intervention or could benefit from it, and of which patients would make appropriate and effective peer outreach workers. These differences in turn affected the level of support clinic staff provided to the peer outreach workers in their clinic and to the intervention in general.

3. Adapting Intervention to Organizational and Contextual Differences—Adding another dimension to this contextual difference, it was found that patients in different clinics and locations varied in their preparedness for and receptivity to the intervention. These contextual distinctions between distinct groups of patients were most readily apparent in the contrast between peers recruited in the three New York City locations as compared to peers recruited from the New Jersey intervention site. In New Jersey, where no syringe exchange

programs were operating at the time the intervention was conducted and where HIV-prevention and drug treatment services were less available and accessible, MMTP patients' pre-intervention level of knowledge regarding basic HIV information was markedly lower in comparison to New York City patients in all locations. As a result, the portion of the New Jersey peers' initial training covering HIV transmission dynamics had to be doubled in length. In addition, New Jersey peers in general had more chaotic and troubled lives; because the daily lives of many of these New Jersey peers were marked by continual crisis, including incarceration, unstable housing, economic insecurity, and serious health problems, their ability to engage in regular structured vocational activity was hampered. As a result of these differences in local environment, the intervention impacted some groups of peers more than others; New Jersey peers dropped out of the intervention at a higher rate, and appeared less able to comply with the attendance requirements.

Adapting an intervention to the local context in which it will be implemented is critical to an intervention's success. In future efforts to place interventions in clinics, a pre-implementation assessment of a clinic's readiness, along with a clinic-wide intervention to address any potential barriers, could be helpful in increasing the impact of the main intervention. More specifically, a pre-implementation assessment might attempt to determine whether a program has the willingness and the available staff resources to support patients who are involved in the intervention, while a pre-implementation intervention could focus on the potential benefits of the intervention for patients in order to increase staff's motivation to provide support to patients. Likewise, a pre-implementation assessment of the population to be trained as peers would be useful to determine their level of motivation, and assessment of any structural community barriers to intervention participation (e.g., transportation limitations) should be undertaken so that the intervention curriculum and structure could be tailored to the specific local needs, barriers and strengths.

4. Involvement of Program Staff—Peers' experiences of the intervention as documented ethnographically highlight the need for ongoing support from program staff – prior to, during and subsequent to involvement in this kind of clinic-based training and outreach program – to sustain the benefits of an intervention. During an intervention, flexibility regarding program attendance and related rules and regulations for patients, such as allowing patients who are involved in training and outreach to attend their treatment program at times that coordinate with their training activities, may facilitate participants' successful completion of the intervention. Furthermore, as is clearly evidenced by participants' feedback in the present intervention, emotional support from program staff is greatly appreciated by patients who are participating in an intervention and may increase patients' motivation to complete the intervention. Thus, for example, integrating discussions of patients' ongoing intervention activities into their regular MMTP counseling sessions is recommended as this may provide patients with a supportive environment in which to work through any challenges they may be facing and thus help them complete and derive the greatest benefit from the intervention. Finally, in order to maintain and build upon any gains made during the course of an intervention, participants need intensive post-intervention support from clinical staff – including monitoring for any substance abuse relapse or depression and related psychological issues, and supported referrals to a variety of vocational activities for those who are interested.

5. Train Peers in Managing Triggers for Drug Use—Finally, our experience implementing the Bienvenidos intervention points to the importance of training drug treatment clients participating in a peer-based outreach intervention in how to avoid and manage potential triggers for drug use that may be encountered when conducting peer education with substance users. As some participants reported in focus groups and interviews, conducting street-based outreach with active drug users can present a risk for relapse; skills-building training in relapse prevention and self-management planning should therefore be integrated into peers' initial

outreach training curriculum and ongoing supervision. However, an awareness of the risks inherent in conducting peer outreach with active drug users should be balanced with an understanding of its potential benefits and rewards for individuals in drug treatment. As several Bienvenidos participants explained, peer outreach work can also function to strengthen an individual's commitment to sobriety. Overall, the possible risks of peer work can be effectively managed provided participants are engaged in ongoing drug treatment and receive adequate counseling and support.

Acknowledgments

This study was funded by NIDA Grant #1 R01 DA010425 (Principal Investigator: Sherry Deren, Ph.D.). Portions of this study were presented at the Northeastern Anthropological Association Annual Meeting (NEAA, 2006) and the Society for Applied Anthropology Annual Meeting (SfAA, 2007).

References

Blankertz L, Magura S, Staines GL, Madison EM, Spinelli M, Horowitz E, Bali P, Guarino H, Grandy A, Young R. A new work placement model for unemployed methadone maintenance patients. Substance Use and Misuse 2004;39(1314):2239–60. [PubMed: 15603003]

Colon RM, Deren S, Guarino H, Mino M, Kang SY. Challenges in recruiting and training drug treatment patients as peer outreach workers: A perspective from the field. Substance Use and Misuse 2010;45 in press.

Colon HM, Robles RR, Deren S, Sahai H, Finlinson HA, Andia J, Cruz MA, Kang SY, Oliver-Velez D. Between-city variation in frequency of injection among Puerto Rican injection drug users: East Harlem, New York, and Bayamon, Puerto Rico. Journal of Acquired Immune Deficiency Syndromes 2001;27(4):405–413. [PubMed: 11468430]

Deren S, Kang SY, Colon HM, Andia JF, Robles RR, Oliver-Velez D, Finlinson A. Migration and HIV risk behaviors: Puerto Rican drug injectors in New York City and Puerto Rico. American Journal of Public Health 2003;93(5):812–816. [PubMed: 12721149]

Deren, S.; Mino, M.; Kang, SY.; Guarino, H. HIV risk reduction for migrant drug users: MMTP patients conducting peer outreach. Presented at the College on Problems of Drug Dependence Annual Conference [CPDD]; Phoenix, AZ. June, 2006; 2006a.

Deren, S.; Mino, M.; Kang, SY.; Guarino, H. Enlisting drug treatment patients in conducting peer outreach to migrant drug users: Preliminary findings. Presented at the XVI International AIDS Conference; Ontario, Canada. August, 2006; 2006b.

Deren S, Oliver-Velez D, Finlinson A, Robles R, Andia J, Colon HM, Kang SY, Shedlin M. Integrating Qualitative and quantitative methods: Comparing HIV-related risk behaviors among Puerto Rican drug users in Puerto Rico and New York. Substance Use and Misuse 2003;38(1):1–24. [PubMed: 12602804]

Dickson-Gomez J, Knowlton A, Latkin C. Hoppers and oldheads: Qualitative evaluation of a volunteer AIDS outreach intervention. AIDS and Behavior 2003;7(3):303–315. [PubMed: 14586192]

Dickson-Gomez J, Weeks M, Martinez M, Convey M. Times and places: Process evaluation of a peer-led HIV prevention intervention. Substance Use and Misuse 2006;41(5):669–690. [PubMed: 16603454]

Evans C, Lambert H. Implementing community interventions for HIV prevention: Insights from project ethnography. Social Science and Medicine 2008;66(2):467–78. Epub 2007 Oct. 24. [PubMed: 17920740]

Garfein RS, Golub ET, Greenberg AE, Hagan H, Hanson DL, Hudson SM, Kapadia F, Latka MH, Ouellet LJ, Purcell DW, Strathdee SA, Thiede H. A peer-education intervention to reduce injection risk behaviors for HIV and hepatitis C virus infection in young injection drug users. AIDS 2007;21(14): 1923–32. [PubMed: 17721100]

Glaser, BG.; Strauss, AL. The discovery of grounded theory: Strategies for qualitative research. New Brunswick, USA and London, UK: Aldine Transaction; 1967.

Grinstead O, Comfort M, McCartney K, Koester K, Neilands T. Bringing it home: Design and implementation of an HIV/STD intervention for women visiting incarcerated men. AIDS Education and Prevention 2008;20(4):285–300. [PubMed: 18673062]

Guarino, H.; Deren, S.; Mino, M.; Kang, SY.; Shedlin, M. Using ethnography to assess the impact of an HIV/AIDS intervention on peer outreach workers. Presented at the Northeastern Anthropological Association Annual Conference; Albany, NY. May, 2006; 2006.

Guarino, H.; Deren, S.; Mino, M.; Kang, SY.; Shedlin, M. Assessing the impact of an HIV/AIDS intervention on peer outreach workers: An ethnographic perspective. Presented at the Society for Applied Anthropology (SfAA) Annual Conference; Tampa, FL. March, 2007; 2007.

Harris GE, Larsen D. HIV peer counseling and the development of hope: Perspectives from peer counselors and peer counseling recipients. AIDS Patient Care and STDs 2007;21(11):843–60. [PubMed: 18240894]

Hong Y, Mitchell SG, Peterson JA, Latkin CA, Tobin K, Gann D. Ethnographic process evaluation: Piloting an HIV prevention intervention program among injection drug users. International Journal of Qualitative Methods 2005;4(1):1–10.

Latkin CA, Donnell D, Metzger D, Sherman S, Aramrattna A, Davis-Vogel A, Quan VM, Gandham S, Vongchak T, Perdue T, Celentano DD. The efficacy of a network intervention to reduce HIV risk behaviors among drug users and risk partners in Chiang Mai, Thailand and Philadelphia, USA. Social Science and Medicine 2009;68:740–748. [PubMed: 19070413]

Latkin CA, Sherman S, Knowlton A. HIV prevention among drug users: Outcome of a network-oriented peer outreach intervention. Health Psychology 2003;22:332–339. [PubMed: 12940388]

Magura S, Blankertz L, Madison EM, et al. An innovative job placement model for unemployed methadone patients: A randomized clinical trial. Substance Use and Misuse 2007;42(5):811–28. [PubMed: 17613946]

Magura S, Nwakeze PC, Kang SY, Demsky S. Program quality effects on patient outcomes during methadone maintenance: A study of 17 clinics. Substance Use and Misuse 1999;34(9):1299–324. [PubMed: 10419225]

Purcell DW, Garfein RS, Latka MH, Thiede H, Hudson S, Bonner S, Golub ET, Ouellet LJ. Development, description, and acceptability of a small-group, behavioral intervention to prevent HIV and hepatitis C virus infections among young adult injection drug users. Drug and Alcohol Dependence 2007;91:S73–80. Epub 2007 April 26. [PubMed: 17466465]

Strauss, A.; Corbin, J. Basics of qualitative research: Techniques and procedures for developing grounded theory. 2nd. Thousand Oaks, CA: Sage Publications; 1998.

Table 1
Baseline Characteristics of Peers Who Completed Training and Participated in Outreach

	Total Participants (n=49)
Gender (% male)	67
Age (mean years)	40.3
Birthplace (%)	
US	69
Puerto Rico	31
Marital status (% married/common-law)	33
Education (% less than HS/GED)	51
Heroin or cocaine positive (%)	43
Currently injecting (%)	14
Employed full- or part-time (%)	12
HIV positive (%)	14