



Published in final edited form as:

Patient Educ Couns. 2007 July ; 67(1-2): 137–142. doi:10.1016/j.pec.2007.03.003.

HIV Seropositive Drug Users' Attitudes Towards Partner Notification (PCRS): Results from the SHIELD Study in Baltimore, Maryland

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Abstract

Objective—To assess the attitudes of HIV seropositive current or former drug users towards HIV partner counseling and referral services (PCRS) and to determine if opinion varies by partner type.

Methods—We used a cross-sectional survey using structured and semi-structured questions to measure attitudes towards PCRS.

Results—The majority of the sample was African-American (97%), male (63%) and had been diagnosed with HIV for a mean of 7.9 years. Most agreed that PCRS would help stop the spread of HIV and AIDS (87%). A range of reactions to scenarios of their drug and sex partners being informed were observed and included positive reactions (e.g. PCRS as a means to facilitate testing of their partners and early treatment) to negative (e.g. feelings about guilt, shame and concern about partner responses).

Conclusion—Data from this study indicate that HIV positive drug users view PCRS as a viable practice for preventing the spread of HIV, though barriers exist to engaging clients to identify partners.

Practice Implications—The range of reactions noted in this study underscore the importance of providing flexible options for PCRS based on partner type. Additional training for counselors, time for case-management and meetings with sex and drug partners and fieldwork for locating contacts are important considerations for providers.

Keywords

Partner notification; PCRS; HIV testing; drug users

1. Introduction

HIV Partner Counseling and Referral Services (PCRS) describes a range of public health activities designed to find, diagnose and treat partners of individuals who have been infected with HIV (1–4). PCRS typically involves obtaining consent from the HIV infected individual to provide names and locating information of their partners to be informed. The

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HIV infected individual can choose to voluntarily disclose their status to their partners (referred to as Patient Referral) or a provider can assist them with disclosure (referred to as Provider Assisted referral). Alternatively, trained field workers can be assigned to locate partners to inform them of a potential exposure to HIV and provide encouragement for these partners to be tested (referred to as Provider referral). A recent review of 25 studies (5), using a variety of samples including men who have sex with men, drug users and women, indicated high levels of general support for PCRS.

There is scant data on the attitudes towards HIV PCRS of HIV seropositive drug users which would be valuable to inform policy and practice of providers who serve drug using populations. As drug users have different types of partners (injection and sex) PCRS planning may require identifying differences in willingness to participate based on partner type. Moreover, HIV positive drug users may lack the training, resources and, opportunities to personally inform drug and sex partners about their exposure risks.

Among a sample of predominately HIV seronegative drug users in methadone treatment, DePhilippis and colleagues (1992) (6) report favorable views toward PCRS and high level of willingness to comply with requests for partner information if required. However, there was no support for PCRS among the few (n=3) HIV positive drug users in this sample. Hoffman et al. (1998) (7) found that among HIV positive out of treatment drug users, preferences to disclose to partners varied by closeness, where clients were more willing to notify close partners (sex or drug) versus casual partners. In a sample of HIV positive drug users (n=25) from New York City, Rogers et al 1998 (8) identified several factors affecting willingness to disclose HIV status to sex and drug partners. Those in treatment were more willing to disclose to sex partners compared to those who were active users. Participants were more willing to provide contact information for past sex partners than past drug partners and reported preferences for self-disclosure to current sex partners. Fear of violence was reported as a primary barrier for female participants to disclose to either drug or sex partner. For both in-treatment and active users, there was a general reluctance to disclose to drug partners due to concerns about identifying individuals who may have legal problems, feelings of futility in locating them, and concerns about personal safety. Half indicated that they would refuse to participate in PCRS (for sex or drug partners) if an outreach worker was involved because of distrust of institutions and the government. Levy and Fox (1998) (9) conducted a randomized trial with a sample of 60 HIV seropositive injection drug users to examine preferences for using an outreach worker to assist with PCRS versus self disclosure to partners. In contrast to Rogers et al (1998), overall they report that 82% preferred assistance of an outreach worker to inform partners of potential exposure to HIV. Differences in preferences for outreach assisted PCRS were found by closeness of the partner. Individuals preferred to self-disclose to partners with close-ties and outreach workers to inform more distant or past ties.

The purpose of this study was to measure attitudes towards HIV PCRS among a sample of HIV seropositive current and former drug users and to determine if opinion varies by partner type. We also sought to elucidate their reactions to scenarios of their partners being notified by health workers of exposure to HIV.

2. Methods

2.1. Study participants

Data for the current study came from a follow-up cross-sectional survey completed as part of the SHIELD (Self Help in Eliminating Life threatening Diseases) study, an experimental network oriented HIV prevention intervention. The SHIELD intervention was designed to train drug users to be peer educators and to conduct HIV prevention education to their social

networks in the community. The SHIELD study also include a large number of participants who were not randomly assigned to the intervention or equal attention control group and served as a natural control group. Methods for the SHIELD study have been described elsewhere (10). In brief, participants were recruited using street-based techniques that targeted areas of Baltimore City, Maryland with high arrest, HIV, and STD incidence rates and through participant word-of-mouth. Inclusion criteria were: aged 18 years of age or older, daily contact with people who use drugs, willingness to bring in social network members, and willingness to conduct outreach activities. Recruitment and the intervention were complete as of March 31, 1999. Baseline data were collected from 1637 participants. Follow-up surveys were administered approximately every 9 months. Retention rates at each wave of follow-up were above 80%.

The current study reports on 209 HIV seropositive participants who completed the fourth wave of follow-up interviews that were conducted from February 21, 2001 to September 15, 2003. The fourth wave was approximately three years after the intervention and the majority (58%) of 209 did not receive either control condition or experimental intervention. All participants provided written informed consent that was approved by the Johns Hopkins Bloomberg School of Public Health Committee on Human Research. Surveys were administered by trained interviewers in a community-based research clinic. HIV antibody testing was only offered to participants who self-reported HIV seronegative status. HIV seropositive status was based upon self-report which has been shown to have very high sensitivity and reliability (11). Participants were paid \$25.00 for completing the survey.

2.2. Measures

Participants reported demographic information and current marital status as well as whether they had been homeless or incarcerated for any period during the past 6 months. Participants were asked how many years they have known their HIV positive status and whether they were currently receiving medical care for HIV or taking HIV medications.

To assess behavioral risk, participants described lifetime history of injection drug use (yes versus no) and use of any drugs by injection, snorting, or smoking in the past 6 months (yes versus no). Injection specific risk was assessed by asking participants when they last shared a needle or cooker (a container used to prepare drugs for injection) with another person. Participants reported the total number of sex partners that they had in the past 90 days. Participants were asked about the total number of times they had vaginal sex with all of their partners in the past 90 days and the number of times a condom was used. A dichotomous variable was constructed to indicate 100% condom use for vaginal sex with all partners in the past 90 days versus less than 100% use.

For purposes of this study, we used a definition of “provider referral” Partner Notification based on approaches described by the CDC and currently used in many US cities (9;12;13) which was read to all participants:

“Partner notification means that the sex or drug partners of people infected with a disease are informed that they may have been exposed. Names are never revealed during partner notification and the partners are encouraged to get tested and treatment. For example, if a person were infected with syphilis, the health department would ask them for the names of their sex partners so that they could be contacted and get tested and treatment.”

To measure opinions about provider referral Partner Notification, participants were asked, “Do you think that partner notification would help stop the spread of AIDS?” (yes versus no). Participants were then asked “How would you feel if your sex partners were notified that they may have come into contact with someone infected with HIV?” They were asked

separately the same question referring to their drug using partners. Participants were permitted to respond in an open-ended fashion and their responses were recorded verbatim by the study interviewer. Study interviewers were not instructed to probe or clarify the response but to record the first answer provided.

2.3. Data analysis

Univariate statistics were employed to examine the quantitative data. To examine differences between attitudes of partner notification by demographic factors, HIV health status, risk behaviors, or partner type, t-test statistics were used for continuous variables and chi-square statistics were used for categorical variables.

Responses to the open-ended questions were reviewed independently by two different coders to identify content and themes. Disagreement on the coding of responses was resolved by a third coder. In the first round of coding, responses were grouped based on key words used by participants. Responses with multiple key words or themes received a secondary code. This process generated 19 categories for responses about notifying drug partners and 21 categories for responses about notifying sex partners. These categories were then collapsed into five broader themes of PCRS reactions that applied to both sex and drug partners: positive reactions to partner notification, negative reactions, participants who were unsure, participants who would not feel either positive or negative, and participants who described the question as not applicable because their partners know their HIV status or they do not have any partners.

In addition to these main PN reactions, seven other broad themes were identified in participants' responses. These themes in order of frequency of mentioned are: expression that the partner should know/be told; expression that informing the partner would allow them to get tested/stop spreading HIV/get help; desire to directly inform partners; desire for anonymous informing; expression of the need to accept/deal with one's HIV status; expression that partners "got what they deserve" or "should have known better" (mentioned only in reactions to informing drug partners).

3. Results

3.1. Sample characteristics

The majority of the sample was male (63%) and African-American (97%). Fifteen percent reported being homeless and 11% incarcerated in the past 6 months. The mean number of years since HIV diagnosis was 7.9 years (SD=4.6 years) and most reported currently receiving medical care for HIV (82%). Approximately half (47%) reported currently taking HIV medications. Nearly all respondents (n=199; 95%) reported a history of injection drug use and 80 (40%) had injected drugs in the past 6 months. One in five participants had snorted any drugs and 31% had smoked crack in the past 6 months. Of those who injected in the past 6 months, one-third shared a needle with their sex partner. Of 57 participants who reported injecting in the past 30 days, 23% reported sharing needles and 53% shared cookers with at least one person. Approximately half of the respondents reported currently having a main sex partner (52%). The majority reported having sex with any partner in the past 6 months (73%) and 32% used condoms 100% of the time for vaginal sex during the past 90 days.

3.2. Reactions to Partner Notification

Most participants (87%) agreed that partner notification would stop the spread of AIDS. This association did not vary by gender, length of time infected with HIV, receiving medical care for HIV, or drug use. Reactions to partner notification to sex and drug partners

respectively were (Table 1) positive (27%, 25%); negative (40%, 44%); neutral (18%, 16%); don't know (9%, 8%) and not applicable (7%, 8%). No statistical differences were observed between the frequency of the five broad categories based upon type of partner notified (Fishers exact chi square= 0.81, p=0.94). Of those who responded that PCRS would help stop the spread of AIDS (n=176), 41% and 38% had negative reactions to their drug and sex partners, respectfully, being informed (Table 2). There was high concordance between drug and sex partners reactions within category where 22% were positive about both drug and sex partners being notified, 38% concordant negative, 11% concordant negative, 7% concordant DK, 7% concordant N/A (Table 3). Of the remaining 31 participants with discordant attitudes, 10 reported positive reactions to drug partners but negative to sex partners with the remaining discordant responses being negative to neutral or don't know.

3.2.1. Positive reactions—Generally the positive reactions described related to the participant viewing partner notification as a way to allow people to get tested and treatment.

“It would be helpful. I believe everybody needs to be tested to found out if they have it [HIV]” – 31 year old male

“I would want them to go and get checked out instead of just putting it off”. – 47 year old male

Some participants reported a sense of relief that their sex and drug partners were informed.

“I feel good they were notified, relieved. I wouldn't be angry” – 36 year old male

3.2.2. Negative reactions—Participants who reported negative reactions to partner notification described a variety of feelings including “feeling bad”, upset, angry and guilty.

“I would feel depressed, remorseful” – 44 year old male

“I would feel a little guilty” – 41 year old female

“I would be upset and furious” – 53 year old male

Concern specifically about provider referral Partner Notification (as was defined in the survey) and interests in patient referral Partner Notification was expressed by some:

“I would feel as though it is something they should not do. They should let the person tell their partners on their own” – 38 year old male

“I would be the one to tell. I wouldn't feel too good about it if it weren't coming from me” –43 year old female

Qualitative examination of themes from open-ended participant responses did indicate some differences in tones of reactions to PCRS by partner type. When talking about sex partners, a greater number of participants gave multiple responses. More reported that their sex partners were already aware of their HIV status as compared to their drug partners. Several respondents reported that they didn't care or that it didn't matter to them “one way or the other” if their drug partners were informed, whereas, this expression was not expressed about sex partners. While not common, a few participants reported that their drug using partners “should have known better” or that they “got what they deserved”, whereas, no participant reported this sentiment about sex partners.

4. Discussion and Conclusion

4.1. Discussion

We surveyed a sample of HIV seropositive drug users on their opinions about HIV provider referral PCRS and their anticipated reactions to having their sex and drug partners informed

about exposure to HIV. Consistent with previous studies (7;14–16), an overwhelming majority of this sample agreed that PCRS would help stop the spread of HIV and AIDS and encourage testing and treatment seeking. Highlighting this feature of PCRS during counseling sessions may increase an individual's sense of making a positive difference in their community and increase motivation to agree to participate and provide accurate partner information. Positive reactions toward partner notification were not uncommon. Participants expressed views of provider referral PCRS as a way to facilitate their partners getting tested, getting medical care and/or stopping the spread of HIV and that sex and drug partners should be notified. These expressions suggest that despite high levels of stigmatization or fear of reactions from social networks, individuals viewed PCRS as a valuable service for informing their partners about health risks. Some participants even described a sense of relief of their partners being notified. This underscores the importance of PCRS counselors to acknowledge the emotional burden associated with notifying partners and provide education about the role that PCRS can play in facilitating their partners getting tested. In fact, the U.S. CDC recommends “developing an atmosphere of trust” between the PCRS provider and conveying concern about the HIV positive client which has in practice increased the likelihood of client willingness to participate (4). Establishing this rapport is likely to require both time and interpersonal sensitivity.

Despite the favorable views of PCRS as a method for public health intervention, a greater proportion of the sample reported negative reactions to their partners being notified as compared to positive. Among these respondents, PCRS was associated with “bad” feelings, guilt and shame and possible concern about partner reactions. Some of these concerns have been previously identified by Rogers et al. (8) in their study with drug users. These feelings may decrease an individual's willingness to agree to sex partner notification or provide accurate information tracing their sex partners. Given these concerns, ensuring that individuals are informed about the PCRS procedures that would be employed to contact partners, ensuring confidentiality, and reviewing the risks and benefits may improve the rates of acceptance and improve the accuracy of partner locating self-referral versus provider referral. Having options of PCRS available may increase the acceptance rate of PCRS. Training people living with HIV/AIDS (PLHAs) in methods of self-disclosure may be appropriate for some individuals, but it is unrealistic to expect all PLHAs to have the skills and resources to contact and disclose to all of their risk partners. As PCRS usually does not disclose the source of the risk behaviors, it may actually protect drug users from negative reactions. However, it is also important to teach drug users appropriate disclosure of their HIV serostatus to supporters who may assist them in obtaining medical care and other resources.

The expression of ambivalence towards notification of drug versus sex partners may reflect lack of positive social relationship among certain drug-using associates (14). Thus, the success of PCRS with casual drug networks may be limited and underscores the importance of having HIV testing widely available at venues where current and former drug users frequent. The ambivalence could also suggest that there are multiple groups of people with distinct attitudes about PCRS (in practice) and these opinions are related to their attitudes towards their drug using partners rather than their attitudes about the concept of PCRS in general.

Certain limitations of this study warrant attention. The sample is predominantly low-income African-American drug users, which limits the generalizability of our results. We did not measure whether participants had previously notified any of their sex or drug partners about their status. In reviewing participant reactions to their partners being notified, 2 of 204 participants reported that sex partners already know and 8 of 204 participants reported that drug partners already know as part of their response. We also did not assess participant's

previous experience with PCRS. In Baltimore City, providers are encouraged to offer PCRS to all individuals who test HIV seropositive. It is possible that prior experience with PCRS could bias individuals' opinions about its effect on the AIDS epidemic or their partners' reactions. Furthermore, we did not ask additional questions to determine if the sex and drug partner was the same person, which could explain the high concordance rates of reactions. However, in a separate analysis of the composition of participants' social networks, there was little overlap between sex and drug partners suggesting that participants were not responding about the same person.

4.2. Conclusion

The results of this study provide additional data about HIV seropositive drug users' perspectives about HIV PCRS, an important public health campaign designed to limit the spread of infectious disease. In addition to describing individual barriers to participation in PCRS, such as feelings of guilt, data from this study suggest that drug users view PCRS as a way to safely inform their drug partners about their need to be tested and that this is a viable method to stop the spread of HIV in the community.

4.3. Practice Implications

We report a range of responses to HIV PCRS, suggesting the need for HIV PCRS programs to be client-centered and flexible to meet needs of various clients. For example, individuals may prefer notifying their main sex partners themselves but having provider referral for notifying their casual sex partners or drug partners. This underscores the importance of involving individuals in the decision of PCRS method to minimize potential negative consequences to themselves and their partners. Service providers offering HIV testing and counseling, should ensure adequate staffing and time for PCRS services. This may entail additional training for counselors, time for case-management and meetings with sex and drug partners and fieldwork for locating contacts. PCRS counselors must not only be knowledgeable about HIV risks and treatment options but also skilled so that they can motivate and support an individual to provide information about their risk partners. Similarly, supervision of PCRS counselors should not only monitor the quality of their counseling but also be mindful of the emotional toll that is associated with providing services to HIV positive clients and their contacts.

Acknowledgments

This work was supported by a grant from the National Institute on Drug Abuse (R01-DA13142). We would like to thank Melissa Davey for her assistance with data preparation and the participants of the SHIELD study.

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Table 1

Attitudes of HIV Positive Current and Former Drug Users to Provider Referral HIV Partner Notification to their Drug and Sex Partners

	Drug Partners	Sex Partners
	N (%)	N (%)
Positive	53 (26)	53 (26)
Negative	85 (42)	79 (39)
Neutral/OK	33 (16)	36 (18)
Don't Know	15 (7)	18 (9)
Not Applicable	15 (7)	15 (7)

Table 2

Comparison of Attitudes towards PCRS by Risk Partner

	Will PCRS help stop the spread of AIDS?		Sex Partners	
	Drug Partners		Drug Partners	Sex Partners
	No	Yes	No	Yes
	n (%)	n (%)	n (%)	n (%)
Attitudes	(n=25)	(n=176)	(n=25)	(n=176)
Positive	5 (20)	48 (27)	5 (20)	48 (27)
Negative	12 (48)	73 (41)	12 (48)	67 (40)
Neutral/OK	3 (12)	30 (17)	3 (12)	33 (19)
Don't Know	4 (16)	11(6)	4 (16)	14 (8)
Not Applicable	1 (4)	14 (8)	1 (4)	14 (8)
				Applicable
Fishers exact chi-square		0.43	Fishers exact chi-square	0.52

Table 3

Concordance of Attitudes between Drug and Sex Partners being Notified about HIV exposure

Concordant Responses	n (%)
Positive	44 (22)
Negative	77 (38)
Neutral/OK	23 (11)
Don't Know	14 (7)
Not Applicable	15 (7)