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CASE REPORT

Effects of an HIV Peer Navigation Intervention for Women Living with HIV: A Brief Report

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ABSTRACT

Background: Peer navigation is an evidence-based model for engaging and retaining women living with HIV in medical care. Participants of an adapted Lotus peer navigation group intervention were hypothesized to have more self-perceived HIV self-care and advocacy behaviors following their participation than non-Lotus participants at an agency serving cisgender women and their families affected by HIV in San Diego, California.

Methods: The peer navigation intervention, Lotus, was adapted to include new modules on substance use, human trafficking, and intimate partner violence and piloted to compare its overall effects with a comparison group (2018-2019).

Ninety-five cisgender women living with HIV (WLWH) completed posttest surveys measuring their perceived changes in peer advocacy and self-advocacy following their participation in a pilot of an adapted Lotus. Participants of the four-session Lotus group intervention (n=34) were compared to non-Lotus participants who engaged in other types of group activities at the agency (n=61). The Lotus group participants included a cohort of cisgender women > 50 years old, English and Spanish speaking women, and a mixed age and race/ethnicity group. All clients of Christie's Place, an organization for women living with HIV in San Diego, were eligible if they were not actively using illicit substances in the past year. Cross-sectional bivariate analyses were run to determine differences between intervention and comparison groups. The groups were not randomized.

Results: Among 95 participants, 17% were White, 14% Black/African American, 44% Hispanic/Latino, and 25% Other/Mixed race/ethnicity with median age 51 years (IQR: 45-60). Eleven Latina, 9 White, 6 Black/African American, and 8 Other/Mixed individuals participated in Lotus. In bivariate analyses, Lotus WLWH living with HIV at posttest took their HIV medications correctly (p=0.040) and attended their healthcare/other service appointments as advised/scheduled 3 times more often than non-Lotus WLWH (p=0.014). They advocated for themselves within medical and social service settings 6 times more often (p<0.001) and talked openly with their doctor 4 times more often (p=0.028). They were also twice as likely to talk more often with their partner about safer sex (p=0.022) and PrEP (p=0.037) and a peer about safer sex (p=0.001). They were 3 times more likely to help a peer understand how HIV medications can improve their health (p=0.001). Medical records showed all Lotus intervention participants as virally suppressed one year after their participation.

Conclusions: Participants of an HIV peer navigation intervention experienced significant changes in self-reported self-advocacy outcomes. Peer navigation training interventions remain critical for medication adherence and self-advocacy among cisgender WLWH.

Introduction

The United States (U.S.) National HIV/AIDS strategy aims to eliminate HIV-related health disparities and promote the public leadership of people living with HIV.¹ Southern California is the second-largest U.S. HIV epicenter. In the U.S.-Mexico border region of San Diego, a focal point for “Ending the AIDS Epidemic,”² and globally, HIV risk is higher among vulnerable cisgender women who experience violence, homelessness, and substance use.³⁻⁵

In San Diego County, only 52% of cisgender women living with HIV (WLWH) were retained in HIV care and 62% were virally suppressed.⁶ Latinos experienced as much as a 36% increase in HIV cases. In San Diego and the U.S.–Mexico border region, HIV and AIDS diagnoses among cisgender women accounted for up to 23% of diagnoses, but they represented only 10% of those engaged in the continuum of HIV care.⁶ Heterosexual contact accounted for 66% of these HIV diagnoses.⁶

Cisgender WLWH face unique challenges to HIV testing and treatment. They often have difficulty navigating HIV care systems due to social and structural barriers, which has negative consequences on their health and can lead to the transmission of HIV to others. For example, WLWH are often exposed to multiple vulnerabilities such as substance use and violence in their relationships. Gender-based violence increases health risks for cisgender women, including HIV infection,⁷⁻⁹ lowering HIV medication adherence. Previous research with persons living with HIV (PLWH), including cisgender and transgender women in the U.S., found that transactional sex and other vulnerabilities such as violence and substance use were associated with missed health care appointments.¹⁰⁻¹¹ Furthermore, cisgender women and especially women of color tend not to test early and often enough for HIV, which further exacerbates poor health outcomes and shortens their life span when they do not access HIV care.¹²

Peer navigation is an intervention that has shown promise in peers linking WLWH to HIV care.¹³⁻¹⁵ Furthermore, peer navigation interventions may influence the frequency of pre-exposure prophylaxis (PrEP) for HIV prevention and safer sex conversations among sexual partners.¹⁶ However, fewer studies have rigorously evaluated the impact of peer navigation group interventions on WLWH’s

self-advocacy outcomes in the U.S. WLWH have engaged in community mobilization peer advocacy type activities globally and within the U.S.,¹⁷⁻¹⁹ but understanding the effects of peer navigation on WLWH’s self-advocacy outcomes needs further investigation.

This brief report describes the preliminary effects of a peer navigation group intervention, Lotus, on WLWH adherence to care outcomes. Lotus was first implemented at Christie’s Place, a San Diego nonprofit organization for WLWH in 2006, ten years after the agency’s inception. Initially, Christie’s Place was one of 10 organizations throughout the U.S. trained in Lotus by Women Organized to Respond to Life-Threatening Diseases (WORLD), a San Francisco, California-based organization for women living with HIV. We hypothesized that following Lotus participation, Lotus participants would engage in HIV self-care (e.g., appointment keeping, and medication taking) more than non-Lotus participants.

Methods

The setting. One-third of Christie’s Place’s clients live in resource-poor areas where stigma, isolation, and lack of access to services are exacerbated; 84% of Christie’s Place clients are from communities of color, 96% live at or below the federal poverty level, and 85% were infected through heterosexual transmission. Many contend with substance abuse, mental health issues, and violent relationships, and have difficulties navigating complex care systems.

The intervention. Lotus is a theory-based, four-session HIV peer navigation group intervention that trains WLWH to be peer navigators who learn how to link to and retain in HIV care other WLWH. Lotus is based on Social Cognitive Theory (people are influenced by situational contexts and increase self-efficacy by observing others practice a new behavior)²⁰ and the Theory of Planned Behavior²¹ (self-efficacy, attitude, and subjective norms influence intentions and behaviors). The components of Lotus include: HIV treatment 101/understanding your labs, peer educator code of ethics and challenges of peer advocacy, communication skills, confidentiality, countertransference, creating boundaries, self-care, working with grief, reproductive system, safer sex and harm reduction. The Lotus components emphasize not only skill and

HIV 101 knowledge building, but also understanding internalized stigma, building community, advocating for oneself at the doctor's office, navigating health services, and encouraging self-resiliency and motivation.

In 2018-2019, through a university-community partnership, the researchers adapted Lotus at Christie's Place to include modules on substance use, violence victimization, and human trafficking/sexual exploitation as barriers to HIV care. Service providers and WLWH provided feedback on the potential targets and barriers to mobilizing WLWH (substance use and violence exposure) which informed the adaptation. Therefore, this study was planned ahead of the adapted Lotus intervention and questions were added to the evaluation tool. The study received University Institutional Review Board approval from San Diego State University.

The participants. Data were collected from Lotus participants at Christie's Place following their participation in the adapted Lotus and from comparison group participants. Ninety-five completed posttest surveys measuring their perceived changes in peer advocacy and self-advocacy.

Participants of the adapted four-session Lotus group intervention (n=34) were compared to non-Lotus participants who engaged in other types of group activities at the agency (n=61). The Lotus group participants included three cohorts of cisgender WLWH: English speaking ages 50+, Spanish speaking WLWH, and mixed age and cultural background. All clients of Christie's Place were eligible if they did not have a substance use disorder in the past year.

Lotus participants who were newly diagnosed or not receiving HIV care were more heavily recruited for the Lotus peer navigation intervention. The remaining 66 WLWH comprised the comparison

group that engaged in one of seven other types of agency group activities related to living with HIV, but not specific to peer navigation and advocacy.

Measures. Survey questions included seven measures on how often they advocated for themselves or changed a behavior that impacted their health (1 = Rarely or never 2 = Sometimes 3 = Often). The measures included how often they advocated for themselves within medical and social service settings, discussed safer sex methods or PrEP with a partner, adhered to their medical appointments, and took their HIV medications, and talked to their doctor. [Table 1]

Statistics. Cross-sectional bivariate analyses of the survey data were run to determine differences between intervention and comparison groups.

Results

Lotus participants (n=34) were compared to non-Lotus participants (n=61) on self-perceptions of change in self-advocacy and peer advocacy behaviors. Ninety-five were retained in the study analyses with 5 dropped due to missing data.

Among 95 participants, 17% were White, 14% Black/African American, 44% Hispanic/Latino, and 25% Other/Mixed race/ethnicity with median age 51 years (IQR: 45-60). Approximately 60% had dependents. For languages, 46% were Spanish-speaking and 54% were English speaking. Eleven Hispanic/Latino, 9 White, 6 Black/African American, and 8 Other/Mixed individuals participated in Lotus. [Table 1].

Analyses indicated no statistically significant differences between the intervention and comparison groups in terms of age, ethnicity, substance use, intimate partner violence, or human trafficking background experiences.

Table 1. Factors associated with participation in Lotus, the peer navigation intervention, n=95

Socio-demographic characteristics n/%	Total (n=95)	Lotus Participants (n=34)	Non-Lotus Participants (n=61)	Odds Ratio	Confidence Interval
Age (median/IQR)	51 (45-60)	54 (37-78)	50 (20-67)	1.04	0.99-1.06
Race/ethnicity				0.80	0.64-1.00
White	16 (17)	9 (27)	7 (12)		
Black/African American	13 (14)	6 (18)	7 (12)		
Hispanic/Latino	42 (44)	11 (32)	31 (51)		
Other/Mixed	24 (25)	8 (24)	16 (26)		
Language				0.80	0.64-0.99*
English	51 (54)	29 (85)	22 (36)		
Spanish	44 (46)	5 (15)	39 (64)		
Self-advocated within medical and social services settings (mean/sd)	2.35/.82	2.85/.36	2.07/.87	5.77	2.33-14.29***
Rarely or never	21 (22)	0 (0)	21 (34)		
Sometimes	20 (21)	5 (15)	15 (25)		
Often or always	54 (57)	29 (85)	25 (41)		
Discuss safer sex methods with a partner	2.38/.83	2.65/.65	2.22/.88	2.00	1.11-3.61*
Rarely or never	21 (22)	3 (9)	18 (30)		
Sometimes	17 (18)	6 (18)	11 (18)		
Often or always	57 (60)	25 (74)	32 (53)		
Discuss the use of PrEP with a partner	2.16/.88	2.41/.82	2.02/.89	1.72	1.03-2.87*
Rarely or never	30 (32)	7 (21)	23 (38)		
Sometimes	20 (21)	6 (18)	14 (23)		
Often or always	45 (47)	21 (62)	24 (39)		
Took HIV medications correctly	2.73/.61	2.91/.29	2.62/.71	3.02	1.03-8.89*
Rarely or never	8 (8)	0 (0)	8 (13)		
Sometimes	10 (11)	3 (9)	7 (12)		
Often or always	77 (81)	31 (91)	46 (75)		
Openly talk with my doctor	2.72/.63	2.94/.24	2.59/.74	4.26	1.17-15.55*
Rarely or never	9 (10)	0 (0)	9 (15)		
Sometimes	9 (10)	2 (6)	7 (12)		
Often or always	77 (81)	32 (94)	45 (74)		
Went to my healthcare or other support services appointment as advised and scheduled	2.61/.72	2.88/.41	2.46/.81	3.18	1.27-7.94*
Rarely or never	13 (14)	1 (3)	12 (20)		
Sometimes	11 (12)	2 (6)	9 (15)		
Often or always	71 (75)	31 (91)	40 (66)		
Change a behavior that impacts my health	2.35/.82	2.68/.64	2.16/.86	2.45	1.30-4.59**
Rarely or never	21 (22)	3 (9)	18 (30)		
Sometimes	20 (21)	5 (15)	15 (25)		
Often or always	54 (57)	26 (76)	28 (46)		
Discuss safer sex methods with a peer	2.2/.86	2.62/.65	1.97/.87	2.82	1.54-5.15**
Rarely or never	27 (28)	3 (8)	24 (39)		
Sometimes	22 (23)	7 (21)	15 (25)		
Often or always	46 (48)	24 (71)	22 (36)		
Help a peer understand how HIV medications can improve their health	2.4/.79	2.76/.43	2.15/.85	3.68	1.73-7.85**
Rarely or never	18 (19)	0 (0)	18 (30)		
Sometimes	24 (25)	8 (23.5)	16 (26)		
Often or always	53 (56)	26 (76)	27 (44)		

*p<0.05, **p<0.01, *** p<0.001

In bivariate analyses [Table 1], WLWH who participated in Lotus reported at posttest that they took their HIV medications correctly (p=0.040) and

attended their healthcare/other service appointments as advised/scheduled three times more often (p=0.014) than non-Lotus participants.

Lotus participants advocated for themselves within medical and social service settings six times more often ($p < 0.001$) and talked openly with their doctor four times more often ($p = 0.028$). They were also twice as likely to talk more often with their partner about safer sex ($p = 0.022$) and PrEP ($p = 0.037$) and a peer about safer sex ($p = 0.001$). They were three times more likely to help a peer understand how HIV medications can improve their health ($p = 0.001$). Medical records showed that all Lotus participants were virally suppressed one year after their participation, compared to 95% of all Christie's Place clients who were virally suppressed, though this difference was not tested for statistical significance.

Discussion

Participants of the peer Lotus navigation intervention, Lotus, performed better on all self-advocacy actions compared to WLWH who did not participate in Lotus. They were also more likely to talk to their partner and others about safer sex and PrEP and HIV medications. All Lotus participants were virally suppressed one year following their participation in Lotus.

The results supported the hypothesis that engagement in HIV self-care increases with participation in the Lotus intervention. Lotus participants took their HIV medications correctly and attended their healthcare/other service appointments as advised/scheduled three times more frequently than non-Lotus participants. They advocated for themselves within medical and social service settings and openly talked with their doctor more often than those who had not participated in Lotus. These findings imply the potential for clear communication, advocacy, and self-efficacy skill building for WLWH. Previous research on peer navigation interventions supports this finding.¹⁴⁻¹⁶

Peer navigators were engaged in behaviors geared towards decreasing HIV transmission more than non-Lotus participants. They talked to their partners about safer sex and PrEP more often than non-Lotus participants. They were also more likely to talk to peers more often about safer sex and to

help them understand how HIV medications can improve their health. These findings illustrate the significance of training WLWH on communication about safer sex and PrEP.¹⁷ The results have implications for Lotus peer navigators to reach women who are not retained in HIV care, newly diagnosed, or even undiagnosed.

Strengths of this study include Spanish translation of the survey for monolingual participants and availability of agency staff to help answer questions about the survey as participants took it. The pilot study also had some limitations in its design. Surveys were self-administered in the community-based agency setting and at posttest only. Participants were not randomly assigned to the intervention and comparison groups, and comparison groups were not equivalent in terms of the duration of participation. However, comparison group participants' characteristics matched those of the intervention group; all were cisgender WLWH and active group participants at the agency. The sample size was also small.

Conclusions

Participants in an HIV peer navigation intervention experienced significant changes in self-advocacy behaviors and adherence to HIV care outcomes. Peer navigation training interventions remain critical for medication adherence and self-advocacy among cisgender WLWH. Future directions include a randomized control trial with peer navigators extending their reach to other cisgender WLWH and those at risk for HIV acquisition.

Conflicts of Interest Statement

The authors declare having no conflicts of interests.

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