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Advantages and Disadvantages for Receiving Internet-Based HIV/AIDS Interventions at Home or at Community Based Organization

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Abstract

Within recent years public health interventions have become technologically based to reflect the digital age we currently live in and appeal to the public in innovative and novel ways. The Internet breaks down boundaries distance imposes and increases our ability to reach and connect with people. Internet-based interventions have the potential to expand access to effective behavioral interventions. The US National HIV/AIDS Strategy states that people living with HIV should have access to effective behavioral interventions like *Healthy Relationships* (HR) to help them develop safe sex and disclosure skills. However, access to HR is limited across the country, especially for people in remote or rural areas. Internet-based *Healthy Relationships Video Groups* (HR-VG) delivered at home or community based organizations (CBOs) can possibly expand access. This study assesses the preferences of women living with HIV (WLH) for participation in HR-VG among 21 WLH who participated in a randomized control trial (RCT) testing HR-VG and completed open-ended semi-structured telephone interviews. Transcripts were thematically analyzed to determine advantages, disadvantages and overall preference for home or agency delivery of HR-VG. Themes relating to convenience, technology access, privacy, distractions, HIV serostatus disclosure and social opportunities were identified as advantages or disadvantages to participating in HR-VG at each location. Overall privacy was the most salient concern of accessing HR-VG at home or at a CBO. Considering the concerns expressed by WLH, further studies are needed to assess how an Internet-based intervention delivered at home for WLH can maintain privacy while being cost effective.

Keywords

HIV; Internet-based interventions; video conferencing; technology; privacy; prevention with positives

Introduction

The US National HIV/AIDS Strategy suggests people living with HIV (PLH) should have access to effective behavioral interventions (EBIs) for reducing transmission of HIV and other sexually transmitted infections (STIs) and meeting their psychosocial needs (The White House Office of National AIDS Policy, 2010). Yet, access to EBIs is limited and the

Internet can serve as a creative solution to improve access and ensure delivery of EBIs to underserved populations (Lounsberry, Macrae, Angen, Hoeber, & Carlson, 2010; Lustria, Cortese, Noar, & Glueckauf, 2009; Marziali & Donahue, 2006; Marziali, Damianakis, & Donahue, 2006). Internet-based EBIs (e.g. video-conferencing) can be delivered through PLH-serving community-based organizations (CBOs) or home access. An external location handles Internet-based intervention delivery and provides specialized training and assistance to people who access the same intervention from various locations. Each delivery mode has great potential for expanding access; however, best practices for diffusion to women living with HIV (WLH) have not been sufficiently explored. Therefore, the purpose of the current study is to understand the perceived advantages and disadvantages of receiving *Healthy Relationships Video-Groups* (HR-VG) at home versus at a CBO among WLH.

Methods

Intervention Description

HR-VG is a six session group-based Internet video-conferencing adaptation of the High Impact Prevention (effectiveinterventions.org) EBI *Healthy Relationships* (HR) offered at limited CBOs across the country to help PLH develop skills pertaining to safe sex and disclosure (Kalichman et al., 2001). Session one included an introduction to the video-conferencing equipment and some discussion about stress and HIV/AIDS. Sessions two through four focused on decision-making and serostatus disclosure to family, friends and sex partners. Sessions five and six were about risk reduction strategies.

Participant Selection

Women (n=396) were recruited to participate in a RCT testing HR-VG, known as the HER study, if they were: female; 18 years old; English-speaking; HIV seropositive; and sexually active in prior 3 months (Marhefka et al., 2014). WLH were excluded if previously exposed to HR. Participants (n=71) were randomized (n=36 intervention and n=35 wait-list cross over). Twenty-one participants who consented to future contact and attended 3 HR-VG sessions were interviewed for this sub-study (see Table 1).

Data Collection

Intervention assessments—Each participant completed baseline, post-intervention and 6-month follow-up assessments via Audio Computer-Assisted Self Interview (ACASI) at a CBO (Marhefka et al., 2014). Participant characteristics were assessed, including demographics, technology use, and previous HIV disclosure.

HR-VG experiences interview—Women were asked if they would prefer HR-VG at a CBO or their home and to explain their preference during 30–60 minute open-ended semi-structured telephone interviews. Participants received a \$20 gift card. Interviews were audio-recorded and transcribed professionally.

Data Analysis

Interview texts were imported into NVivo 10 for thematic analysis. Through an iterative process of coding six randomly chosen transcripts the codebook was revised until a kappa of 0.8 was achieved. The final codebook included eight inductive parent codes.

A secondary analysis of distractions noted during interviews was conducted to understand challenges of home-based delivery. A list of distractions was developed from coding of background noises, conversations, or interruptions detected in the audio-recorded interviews.

Results

Home advantages and disadvantages

Advantages to participating in HR-VG at home included convenience, comfort of home and technology availability. Home was more **convenient** (n=5) because women did not have to travel or secure childcare services. Some reported their home was a **comfortable environment** (n=5) where they had the requisite **technology access** (n=2).

Disadvantages included concerns about privacy, disclosure and distractions. Lack of **privacy** (n=7) was a concern when there were others living in their home.

“I wouldn’t like [other people seeing inside my home], because we didn’t give permission to other people outside of those participating to hear our voices, to see our faces. And that would be a big concern for me because this is a small world... And we have no control over others who haven’t agreed [to] confidentiality”
(4895, age 58)

Some women had not **disclosed their HIV status** (n=5) to people in their homes—especially children—and were concerned that doing the intervention at home could lead to inadvertent disclosure. Women also cited **distractions** (n=4; i.e., interruptions from others living in their home, loud noises and incoming telephone calls). Moreover, during telephone interview observations at least one of three types of distractions occurred in 16 of 21 audio recorded interviews, including background noises (e.g., TV playing (n=15), incoming phone calls (n=1) and participant conversations with others (n=7)).

Agency advantages and disadvantages

Advantages to receiving HR-VG at a CBO included privacy, technology availability, and social opportunities. **Privacy** (n=5), such as having a dedicated closed space, was an advantage and seemed very important.

“A lot of times I’m not by myself, it’s more beneficial at the center... nobody was going to walk in on me and I wouldn’t have to stop and explain ‘What are you doing?’ or whatever. It was more private and you could focus more on what you were doing instead of doing it in your home” (8443, age 49)

WLH liked not having to supply their own **technology** (n=4). Additionally, several were excited about **social opportunities** (n=4) inherent in traveling to the CBO.

Disadvantages included **transportation and travel** requirements, which necessitated multiple buses (n=1) or long distances (n=1). Two women believed the agency was **not private**; they had less control over employees or other PLH who could potentially hack (n=1) or listen to sessions (n=1).

“In a public office, where they’re separating a room, I guarantee that those walls... Everybody [can hear you]. (laughter)...even though they got it separated from everybody and it’s in a room, who guarantees that there’s no people going in and out of that same building and they hear you, and they recognize [you and realize what] you have.” (1167, age 42)

Discussion

This study assessed advantages and disadvantages for accessing HR-VG at home or a CBO among WLH. Each intervention location had advantages and disadvantages. Privacy was the most salient issue and was identified as disadvantage of home access, but also as an advantage and disadvantage of CBO access.

Internet-based interventions delivered at CBOs provide dedicated private space and equipment for participants. A private room enhances attention and security. CBOs provide requisite technology so participants do not have to expend resources just to join. PLH often feel isolated and may welcome the chance to interact with others during their commute to the CBO, which also provides social opportunities with other PLH and allies. Despite these advantages, CBO delivery of Internet-based interventions may only be ideal for PLH who have access to transportation or a local CBO and perceive the CBO as private.

Home delivery of Internet-based interventions can increase access to hard-to-reach populations (Griffiths, Lindenmeyer, Powell, Lowe, & Thorogood, 2006) and reduce travel-related barriers (Brennan & Ripich, 1994; Brennan, Ripich, & Moore, 1991; Cudney & Weinert, 2000; Flatley-Brennan, 1998; Johnson, Ravert, & Everton, 2001; Lange et al., 2003; Smith & Weinert, 2000). PLH often have disabling co-morbidities that make it difficult to leave home. Many PLH live in remote/rural areas (U.S. Department of Health and Human Services, n.d.) and the nearest CBO may be too far away to access via personal or public transportation. Even when public transportation is available, the route and cost of travel may add burden.

Internet-based interventions accessed at home may reduce stigma (Griffiths et al., 2006), because they limit the need to go to CBOs. HIV-related CBOs may be recognized by community members as serving PLH, and can lead to public disclosure for people who access their services. Public disclosure from accessing HR-VG at a CBO did not arise as a concern in this study. However, our sample was primarily urban/suburban and was comprised of women who already accessed HR-VG at a CBO. Rural residents may have greater stigma-related concerns or have no CBO in their areas. Nonetheless, completing HR-VG at home could increase stigma experiences because people in the home of other participants could invade their private spaces and see into their home, resulting in unintended disclosure.

U.S. Internet use and availability is increasing across generations and socioeconomic classes (File, 2013; Zickuhr, 2013). Nonetheless, consistent, reliable, high-speed Internet access could be a major barrier to expanding access to HR-VG and other programs for low-income PLH. HR-VG was conducted via videophones; however, for home delivery, Internet access (via computers or tablets) would be essential for participation. The requisite technology costs may be infeasible for low-income households. Quality Internet connections are important to ensure adequate program delivery and to preserve continuity in the group process. Internet coverage in rural areas (Prieger, 2012) may not meet the demands for programs like HR-VG (The White House Office of National AIDS Policy, 2010). Even if technology access and low-cost quality Internet were achievable for this population, remaining challenges include; a) ensuring secure Internet transmissions, b) providing technical assistance for extensive variability in hardware, software and Internet speed/consistency, and c) maintaining privacy, perhaps via additional hardware and software features, such as chat features, headphones, or screen filters.

Interventions intended for home access could actually be accessed almost anywhere (e.g. public locations with WiFi, work or other people's homes) and from most devices (e.g. tablet or telephone). Mobile intervention access is challenging, as the quality of Internet connections may interfere with content delivery unsecure and/or public WiFi may threaten confidentiality. Hacking was rarely mentioned in this study, but was a major concern for accessing Internet-based interventions in previous work (Marhefka, Fuhrmann, Gilliam, Lopez, & Baldwin, 2012).

Our study is limited by sampling design because participants were a subset of WLH who previously completed HR-VG at a CBO, and most lived in urban or suburban areas. Experience with CBO HR-VG access may have biased responses. It is unknown what WLH in rural areas would consider more risky—others seeing participants at home or going to a CBO; research is needed among WLH living in rural and remote areas. Interviews were delayed after participation in the intervention (M=13.6 months); discussions of their experiences in the agency-based delivery may be biased due to poor recall.

Our findings suggest there is some interest in home access of HR-VG; however, there are many people who prefer to access HR-VG at a CBO. Offering participants a choice of CBO or home access would provide options to access programs like HR-VG based on their particular circumstances. This multimodal approach could increase access at relatively low cost, but implementation research is needed to determine the best approaches to offering this program and similar programs for PLH.

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Table 1

Characteristics of a subset of women living with HIV (n=21) who participated in the Healthy Relationships Videophone Group

Characteristics	Mean	(SD)
Age	44	(9.4)
Characteristics	N	(%)
Race/Ethnicity		
White	5	(24)
Black/African American	13	(62)
Hispanic	2	(10)
Other	1	(5)
HR-VG Sessions attended		
3	1	(5)
4	5	(24)
5	2	(10)
6	13	(62)
Computer at home	11	(52)
Internet access at home	11	(52)
At least one other person living in household	18	(86)
People under 18	11	(52)
Disclosed status to at least one person at home	11	(52)
Years since HIV+ Diagnosis		
0-5	5	(24)
6-10	4	(19)
11+	12	(57)
Food security (n=19)		
I get enough to eat OR I can get enough food to make me satisfied	15	(71)
I am often hungry and don't have money for food	0	(0)
I am sometimes hungry and don't have money for food	2	(10)
Every once in a while I am hungry and don't have money for food	2	(10)
Benefits received		
Food stamps	15	(71)
WIC	4	(19)
Medicaid	15	(71)
Medicare	4	(19)
SSI	12	(57)
SSDI	3	(14)
Florida Kid Care	2	(10)
Healthy Start	3	(14)
Head Start	2	(10)
Temporary Cash Assistance	3	(14)

Characteristics	Mean	(SD)
Ryan White	16	(76)

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