Published in final edited form as:

AIDS Behav. 2015 October; 19(10): 1896–1904. doi:10.1007/s10461-015-1031-0.

Feasibility of using an iPod Touch device and acceptability of a stigma reduction intervention with HIV-infected women in the Deep South

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INTRODUCTION

Three decades into the HIV epidemic, HIV-related stigma continues to serve as a major barrier for those seeking HIV testing and counseling, disclosing one's HIV status to sexual partners and health care providers, seeking and engaging in medical care, self-managing the disease after infection, and adhering to anti-retroviral therapy (1-4). Across populations, and around the globe, persons at risk for or infected with HIV continue to be stigmatized, blamed for becoming infected, ostracized by family members and communities, and devalued (2, 3, 5, 6). Therefore, "working to end the stigma and discrimination experienced by people living with HIV is a critical component of curtailing the epidemic" (1).

HIV-RELATED STIGMA, WOMEN, AND THE SOUTHERN US

In the classic work, Stigma: Notes on the Management of a Spoiled Identity, Goffman (7) defined types of stigma to include those that represent an abomination of the body or a blemish of individual character. Stigma, a social phenomenon, occurs when a person is believed to possess or has an undesirable trait or attribute and/or engages in an objectionable behavior resulting in being viewed as imperfect by societal standards (7-11). By connecting an individual to an undesirable trait or objectionable behavior, the resulting stigma impacts social status and interactions; negatively impacts self-identity; and leads to rejection, isolation and discrimination.

In the context of HIV, stigma can take many forms (8, 9, 12, 13). Not only can it be enacted towards an individual but it can also be anticipated, perceived, and/or internalized by the person living with HIV. Enacted HIV stigma is directly experienced by an individual and is manifested as "prejudice, discounting, discrediting, and discrimination" (p. 1107) by others due to one's HIV status (9). Anticipated HIV stigma includes the concerns an individual has about discrimination or adverse events that might happen, should one's HIV status become known by others (8). Perceived stigma is reflected in the beliefs an HIV-infected person has about the public stigmatizing someone with HIV (14). Internalized HIV stigma occurs when the negative attitudes, beliefs, and feelings associated with HIV are assimilated into self, threatening self-concept and self-esteem (12-13).

After learning one is HIV infected, it is essential to manage the trajectory of HIV-related stigma in order to establish a positive self-identity as an infected person (6, 15). Stigma management is critical as HIV-infected persons who perceive or anticipate lower levels of stigma and experience fewer episodes of HIV-related discrimination (enacted stigma) have higher life satisfaction and quality of life (16-19). In contrast, HIV-infected persons with higher levels of anticipated or perceived stigma report a higher frequency of mental health problems including greater depressive symptoms, more post-traumatic stress related symptoms, and more risky sexual behavior (11, 15); a poorer quality of life (20); and poorer access to medical care including adherence to anti-retroviral therapy (2, 4). Among women living with HIV in the Deep South, those who experienced HIV-related stigma had more stress, suicidal ideations, depressive symptoms, and unprotected sexual episodes; lower average scores on self-esteem and quality of life; and were less likely to receive medical care for HIV (21).

In 2011, ten U. S. states accounted for 65% of all new HIV diagnoses with five being in the Southern United States (22-23). Of the ten states with the highest rates of new HIV diagnoses, seven are in the Southern United States (22-23). When examining the top ten states contributing to the total number of new HIV diagnoses, North Carolina has the 8th highest number in the United States (22-23). In the Deep South, HIV-related stigma, compounded by high levels of poverty and sexually transmitted infections, contributes to the increased HIV incidence and mortality. As a result, there is a critical need to strengthen HIV prevention, care and treatment while also addressing the underlying factors contributing to HIV in this region. Improve (24).

HIV-RELATED STIGMA REDUCTION INTERVENTIONS

Noar and colleagues (25), through a meta-analysis of 12 randomized control trials, identified that technology-based HIV prevention interventions are as efficacious as human-delivered interventions. However, very few interventions aimed at reducing HIV-related stigma have been tested for feasibility, acceptability and efficacy, whether technologically-delivered or human-delivered. In a pilot study comprised of 24 African American women living with HIV, Roa and colleagues (26) demonstrated feasibility, acceptability and preliminary efficacy of a human-delivered stigma intervention. Marhefka and colleagues (27) utilized video-conferencing with four minority women infected with HIV to support healthy relationships, which include content on HIV-related stigma, in a single group pilot test. These two studies, limited by sample size and design, demonstrate feasibility and acceptability to utilize technology to deliver HIV-related stigma interventions.

Because of the endemic nature and consequences of HIV-related stigma in women and the scarcity of evidence supporting HIV-related stigma interventions, we conducted a randomized controlled trial to evaluate the feasibility, acceptability, and efficacy of a technologically-delivered stigma reduction intervention for HIV-infected women in the southern US using an iPod Touch device. Since a technologically delivered HIV-related stigma intervention is novice, this report addresses the feasibility of using an iPod Touch device and acceptability of a stigma reduction intervention in the 51 HIV-infected women randomized to the intervention arm of the study.

METHODS

Design

The study was a mixed-methods, randomized controlled trial in which 99 women with HIV infection were randomized to receive either a technologically-delivered stigma reduction intervention (n=51) or a control condition (n=48). Efficacy data were collected on HIV-related stigma, self-esteem, and coping self-efficacy at baseline, 30 and 90 days in both the control and intervention groups to evaluate whether the intervention improved these psychosocial outcomes when compared to the control condition. For information about the efficacy of the stigma reduction intervention, please see Barroso et al (28).

The feasibility and acceptability outcomes were also assessed at 30 and 90 days among the 51 women in the intervention arm. To measure these outcomes, data from two instruments – the Narrative Transportation Scale and the Perceived Realism Scale (developed for this study) and qualitative notes provided by the participants throughout the intervention period were utilized.

Stigma Reduction Intervention

The stigma reduction intervention was a video, *Maybe Someday: Voices of HIV-Positive Women*, developed from the qualitative metasynthesis work of Sandelowski and Barroso (29). Through this metasynthesis, the experiences of 1,780 HIV-infected women in the U. S. were identified and led to the development of the video intervention (02). The video

intervention was delivered via an iPod Touch and was comprised of vignettes of five HIV-infected women.

During the introduction to the video, the narrator informed the viewer that the women were not actual patients but were actors presenting information generated from studies in which research interviews were conducted with actual HIV-infected women. The actresses (two were African-American, two were Hispanic/Latina, and one was White) told a story designed to connect with viewers on multiple levels and acknowledge the interplay, connections, and potential disconnections between their HIV status and other aspects of their lives. The five vignettes defined stigma; examined the potential responses to being stigmatized; assessed factors and processes to contemplate in relation to disclosing to children, family and friends; and discussed planning a future as an HIV-infected women including engaging in intimate relationships. For more detail about the vignettes, see Sandelowski, Trimble, Woodard, and Barroso (30).

An iPod Touch was utilized to deliver the video intervention (45 minutes long). The intervention was conceptualized to work via narrative transportation, a mental process that melds attention, imagery, and feelings, allowing the viewer to become absorbed and transported into the worlds of the women featured. Women were asked to watch the video a minimum of once a week for four weeks, then as they desired in weeks 5-12. The use of a small hand-held device, such as an iPod Touch, is an effective format for delivering a video intervention. By using the iPod Touch, each woman was able to view the video intervention privately, on her own time, and in a location she deemed safe. The device was also password protected to prevent unplanned disclosures or breaches in confidentiality.

Recruitment & Sample

To recruit women for this study, flyers were distributed at six sites, including infectious disease clinics at University-affiliated medical centers, county health departments, and Ryan White-funded clinics in North Carolina. These sites provide HIV-oriented medical services to women from across central North Carolina, including women from both urban and rural locations. Women infected with HIV interested in participating in the study were instructed on the flyer to contact the study office. Recruitment occurred during the last two quarters of 2011 and the first four months of 2012.

To ensure the women participating in the intervention study felt stigmatized due to their HIV infection, the study protocol required screening the women using the Internalized HIV Stigma Scale (13). Women who scored 40 or higher (the median score) on the scale were eligible for inclusion. Consequently, women participating in the study had moderate to high levels of internalized HIV-related stigma at the time of enrollment. Additionally, women also had to be aged 18 and older, able to communicate in English, and mentally competent in order to participate.

After being identified as eligible for inclusion, a meeting was arranged with each participant at a location of her choice. At this initial meeting, written informed consent and baseline data (demographic data, self-esteem, coping self-efficacy, HIV-related stigma) were obtained. Women in both the intervention and control arms were provided the iPod Touch

and oriented to its use. The iPod Touch devices for the women in the intervention arm were preloaded with the video, *Maybe Someday: Voices of HIV-Positive Wome*n and password protected. The password was meant to prevent an unplanned disclosure of HIV status in the event someone accessed the iPod and inquired as to why the participant had a video about HIV-infected women on the device. Women in the control arm were provided the iPod Touch without the video pre-loaded. The participants in the control arm of this study received no intervention. Women in both arms of the study were allowed to keep the iPod Touch at the conclusion of the study.

To promote participation, the women received courtesy reminders before and after the two time points (30 days, 90 days). With the submission of completed study questionnaires at 30 and 90 days, women received a \$10 WalMart gift card. Women in both the intervention and control arms of the study were from diverse racial and ethnic backgrounds. The intervention and control arms did not differ significantly with regard to age, racial/ethnic group, years of education, current employment, number of people residing in the household, and serving as a primary caregiver for someone else in the household or monthly income (28).

Instrumentation, Data Collection and Management

The Narrative Transportation Scale and Perceived Realism Scale were developed for this study based on work by Green and Brock (31-33). The Narrative Transportation Scale was an 11 item, 7 point Likert type (1=strongly disagree to 7=strongly agree) instrument with three items being reversed scored. Among the intervention arm sample, the standardized reliability coefficient Cronbach's alpha at 30 days and 90 days were $\alpha=0.78$ and $\alpha=0.85$, respectively. The Perceived Realism Scale was an 8 item, 7 point Likert type (1=strongly disagree to 7=strongly agree) instrument with three items being reversed scored. Among the intervention arm sample, the standardized reliability coefficient Cronbach's alpha at 30 days and 90 days were $\alpha=0.66$ and $\alpha=0.80$, respectively. Individual items on these tools were utilized as outcome measures to evaluate feasibility and acceptability of the intervention.

At the time of enrollment, a member of the study team also reviewed the Viewing Log with the women in the intervention arm and showed them how to complete it. The purpose of the Viewing Log was to obtain information on how often the women watched the video (dose data) and to provide them an opportunity to write down thoughts, reactions, and feelings experienced related to the video intervention (a source of qualitative data to assess feasibility and acceptability). At the completion of the study, the women were asked to return their completed Viewing Log books to the study coordinator. Of the 51 women assigned to the intervention arm, 35 women voluntarily provided written comments in the Viewing Log.

Human Subjects Protection

The IRB at the institution of the study team (Duke University) approved the procedures for the study. Further, a Certificate of Confidentiality was obtained for this study from the National Institutes of Health. All members of the study team completed human subjects training as required by the parent institution. Additionally, each member of the study team involved in recruitment and/or enrollment had clinical experience, either as a registered nurse or social worker, working with vulnerable populations including women living with

HIV. As per the study protocol, referral mechanisms were established if there were suspected cases of mental illness, physical illness, and/or intimate partner violence. We did not need to activate these during the course of the study.

At the time of enrollment, women were asked to identify the preferred mechanism for receiving contact from a member of the study team – telephone, email, or US mail. This was necessary to prevent unplanned disclosure of a participant's HIV status and to ensure the confidentiality and privacy of the participants. The study team was prepared to rent a Post Office Box for any study participant to ensure confidentiality and privacy; none of the participants in either arm of the study utilized this option.

RESULTS

Among the 51 women in the intervention arm, 82% self-identified as African-American. The mean age of the women was 46.3 years (SD = 10.1), with 34% being single/never married and another 34% divorced. Only 13.7% of the women were employed with the remainder being unemployed or disabled. Many women (38%) had children under the age of 18 living with them. The median monthly income among the participants was \$700, and the mean number of years since diagnosis was 13.4 years (SD = 7.3). Although most of the participants resided in an urban or semi-urban area, 27.5% (n = 14) of the participants in the intervention arm resided in a rural geographic location. Overall, the participants in this study were primarily socioeconomically disadvantaged women of color who were unemployed and socially isolated. The demographics of the women participating in this study closely mirror the HIV epidemic among women in the southeastern United States and the United States in general. Please refer to Table I for further information about the sociodemographics of the study participants.

Feasibility of using an iPod Touch to Deliver the Intervention

Based on the findings of this study, the results indicate that utilizing an iPod Touch device to deliver a stigma reduction intervention to women infected with HIV is feasible. The evidence suggests that the women could successfully utilize the iPod Touch and access the video independently. In regards to how often the women watched the video, data from the Viewing Logs indicated that during weeks 1-4, the mean number of minutes spent viewing the video was 264.9 (SD = 160) or an average of 66.25 minutes/week (the video was 45 minutes in length and it was possible to watch individual vignettes on the video); the median was 225 (lower quartile = 164; upper quartile = 344). During weeks 1-12, the mean number of minutes spent viewing the video by the women was 487.2 (SD = 292.5) or 40.58 minutes/week; the median was 425.5 (lower quartile = 284.4; upper quartile = 585). In regards to how many times the video was watched in its entirety during the first 4 weeks (the planned intervention period), results indicated that the mean number of times the video was viewed equaled 5.3 (SD = 3.4). During weeks 1- 12, the mean number of times the women watched the video in its entirety was 9.7 times (SD = 7.3).

During the course of the study, only two women (3.9%) had to have the iPod Touch replaced. One woman reported her iPod Touch stolen to the police while another woman broke her iPod Touch after accidentally dropping it. Six different women (11.8%) contacted

the study office to obtain assistance with viewing the video on the iPod Touch. Of the women with viewing-related questions, two (3.9%) had problems viewing the video and needed re-orientation to the password, one (1.9%) let the iPod Touch completely exhaust the battery resulting in the video being erased, and three (5.9%) women required re-orientation in using the iPod Touch. Among the women in both arms of the study, there were no breaches in privacy, no breaches in confidentiality, and no unplanned disclosures of HIV status to another person. In fact, during the study, two women (3.9%) in the intervention arm contacted the study office to obtain a DVD copy of the video to show to family members.

Acceptability of the Intervention

Data from the Narrative Transportation Scale, as illustrated in Table II, revealed that the omen could easily see the stories taking place, could picture themselves in the stories described in the video, wanted to learn what happened to the women after each story ended, thought about how the women's lives might have turned out, and believed the stories were relevant to everyday life. Further, data from the Perceived Realism Scale (Table III) indicated that the women perceived the stories in the video to be realistic and believable, represented people they might actually know, dealt with the kind of very difficult choices people in real life have to make, showed that women living with experience many challenges, and that events that have actually happened, or could have happened, were discussed in the video. Further, results indicated that the women were engaged, or narratively transported, in the stories being portrayed. During viewing of the video vignettes, women were not distracted by other activities and did not find their minds wandering. The women disagreed with the statement, "I have a hard time believing the women in these stories are real because the basic situation is so far-fetched."

Data from the Viewing Log substantiated the quantitative data collected from the both the Narrative Transportation and Perceived Realism Scales. Women stated that the video "was telling my story" and that "all part[s] were important to me because it was my life." Other women commented that the video "touches the heart and soul" and participation in the study and viewing the video "changed my life for the better." Women also shared that they felt "good about the video," "a little more empowered and informed" after watching the video, that the "video gave me some strong insight on dealing with the fact that I'm HIV positive" and "has helped me to come more stronger and much more wiser to the disease and the stigma in people."

Two women's written comments provided strong evidence to support the acceptability of the stigma reduction intervention. As one woman stated, "This video was great. I wish someone would of showed me this video 14 years ago when I found out. Maybe I wouldn't been in therapy as much as I was." Similarly, a 47 year old African-American/Hispanic woman living with HIV for 20 years stated:

All of the video was important to me. This movie had the most important scenarios that woman deal with daily. It opened my eyes to what I was dealing with as an HIV [infected] women. I had never put a name or adjective to what I was doing daily by trying to conceal my status and what it has been doing to me mentally and emotionally.... I watched it at the end of ever[y] Sunday night. I got used to it being

a part of my Sunday nights. I will continue to watch it, because I hope with all my heart that I can walk around and people & family say 'how you doing?', 'hang in there,' 'you're looking good.'

Similarly, a 52 year old African-American woman living with HIV for 23 years stated,

This survey has helped me, I'm getting closer to myself, not as much on eggshells as I was prior of this study....Doing this study have given me more empowerment. I am becoming more comfortable with myself. My self-esteem has grown. This has been an awesome survey, it has given me some relief from my own circumstances. It has given me some unimaginable relief that is hard to put into words.

However, not all the women found the video to be affirming. One woman reported that "the entire video was stress producing" while another stated that "it was a little bit stressful for me because I have 3 kids and I needed to wait for them to go to bed for me to be able to watch the video." Another woman stated, "I wouldn't say that it was stressful, but very sad. The part when the lady was talking about how people were discriminating against her and try to say how she caught HIV. That part made me cry."

As previously described, the women in the video were actors portraying the stories of women infected with HIV identified through the qualitative metasynthesis. When the video was being produced, because of the adverse impact of HIV-related stigma and the ease with which such a video could be shared, the decision was made not to use HIV-infected women. For a couple of women, the use of actors diminished the realism of the video. One woman stated, "I can't get past the acting in the video," while another woman shared, "They should have used real people not actors. Anybody can act. So this is not so true. It is a waste of time." However, even with the use of actors, another woman found value and meaning in the video; she stated, "It was so heart breaking for me. Even though they were actors, I got a lot out of the video concerning society at large about females with HIV."

DISCUSSION

To achieve the goal of The National HIV/AIDS Strategy of the United States (1, p. iii) where persons living with HIV/AIDS will be "free from stigma and discrimination," much work remains. Until this is reality, it is critical to help women infected with HIV to learn new skills to adapt, cope, and manage the effects of HIV-related stigma. However, many women infected with HIV have minimal resources available to do this. For some women, rural isolation limits available resources. For others, the lack of personal and financial resources to travel to participate in a support group, even if available, is a challenge. For many HIV-infected women, personal discomfort or unwillingness to participate in a support group due to the fear that others will learn their HIV status is a major barrier. The use of a small hand-held device, like an iPod Touch, that allows women to access a stigma reduction intervention independently, privately and on their own time, appears an excellent format for intervention delivery.

In regards to feasibility, we were able to screen and recruit 99 participants with moderate to high levels of internalized HIV-related stigma in approximately 7 months. Results indicate that a diverse group of women living with HIV were able to use an iPod Touch device to

receive an HIV stigma intervention without any breaches in privacy, confidentiality, or unplanned disclosures of HIV status to another person. As evidenced by the frequency of viewing, women in the study were able to utilize the iPod Touch to view the video in its entirety as well as individual vignettes. Overall, only six women in the intervention arm had problems with the iPod Touch technology. Thus, data from this study suggests that it is feasible to utilize an iPod Touch to deliver an HIV stigma reduction intervention.

As with any study in which relatively expensive technological equipment is used, concern for the protection of material resources and cost are feasibility issues. However, in this study, there were only two instances where the iPod Touch needed to be replaced – one due to it being stolen and one after accidental dropping damaging the device. We assert that the \$200 cost for each of the iPod Touch devices was well spent considering the efficacy of the intervention demonstrated in terms of increased participant self-esteem and coping self-esteem and decreased internalized HIV-related stigma (30). A recent analysis of the economic value of reducing HIV-related stigma demonstrates that such changes in measured stigma can be reflected as changes in income for the stigmatized person; and, although such an analysis was not performed in this study, the economic returns produced may equal a final valuation of ~\$1000 per unit of stigma, which far outweighs a device costing \$200 (346). Thus, results from this study demonstrate that it is feasible to deliver a technologically based intervention with HIV-infected women.

Quantitative data, collected from the Narrative Transportation Scale and the Perceived Realism Scale, and qualitative data suggest that the women participating in the intervention arm of this study found the video vignettes to be meaningful and reflective of their lived experiences related to HIV-related stigma and being a woman infected with HIV. These data support acceptability of the intervention. The qualitative data overwhelming indicated that the video, *Maybe Someday: Voices of HIV-Positive women*, was telling the story of stigma in HIV-infected women and that it was important to them because it represented their lives. Further, the quantitative data demonstrates that a video delivered by technology allow HIV-infected women to be narratively transported through the video, resulting in new insights and examination of feelings about HIV-related stigma.

Through further investigation, the intervention needs to be adapted so that is culturally and linguistically acceptable to women infected with HIV who are monolingual Spanish speakers. The technologically delivered intervention also needs to be evaluated in a larger, multi-site clinical trial to determine dose of intervention required to yield change in HIV-related stigma. It is also necessary to evaluate if boosters are needed to sustain durability of change beyond 90 days (end point for this study).

CONCLUSION

"AIDS makes explicit, as few diseases could, the complex interaction of social, cultural and biological forces" (35, p. 163). Until infection with HIV is as socially acceptable as heart disease or cancer or diabetes, women infected with HIV will continue to encounter HIV-related stigma in its many forms. Results of this study demonstrated feasibility and acceptability of a technologically delivered HIV stigma intervention. Despite the promise of

the technology, further rigorous investigation is necessary to clearly establish efficacy and effectiveness in diverse settings and with diverse women infected with HIV.

ACKNOWLEDGMENTS

We thank the study participants who helped us understand the feasibility and acceptability of a stigma reduction intervention. We would also like to thank Dr. Gina Wingood and Dr. Seth Kalichman for their consultative contributions to this study. This work was supported by the US Department of Health and Human Services, National Institutes of Health, National Institute of Nursing Research - grant number R21NR021415 (J. Barroso, PI).

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Table ISociodemographic characteristics among women assigned to the intervention arm.

Characteristic	Intervention (N=51)
Age, in years	46.3 ± 10.1
Years since contracted HIV	13.4 ± 7.3
Race/Ethnicity	
Black or African American	42 (82.4%)
White or Caucasian	6 (11.8%)
Hispanic/Latina	3 (5.9%)
Marital Status	
Married – monogamous relationship	6 (12.0%)
Not currently married - widowed	9 (18.0%)
Not currently married - divorced	17 (34.0%)
Cohabitating with long-term partner	1 (2.0%)
Single / never married	17 (34.0%)
Years of Education	12.4 ± 2.3
Currently Employed	7 (13.7%)
Number Residing in Household (including self)	2.5 ± 2.1
One resident	24 (47.1%)
Two residents	8 (15.7%)
Three residents	7 (13.7%)
Four residents	5 (9.8%)
Five residents	3 (5.9%)
Greater than five residents	4 (7.8%)
Primary Caregiver for Someone in Your Household	14 (29.2%)
Total Monthly Income, in US dollars	919.0 ± 737.1
Total Monthly Income, in US dollars (min, median, max)	0, 700, 4000
Most Recent Self-Reported CD ⁴⁺ T-cell count (min, median, max)	25, 550, 1693

Notes:

Continuous data presented as mean \pm standard deviation unless otherwise specified; Categorical data presented n (%); min = minimum; max = maximum

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Table II

Narrative Transportation Scale results among women assigned to the intervention arm.

Question	30 days Mean ± SD	90 days Mean + SD
1. While I was watching the video, I could easily see the stories in it taking place.	$5.6 \pm 1.6 \ (n = 46)$	$5.5 \pm 1.8 \ (n = 39)$
$\overset{*}{2}$. While I was watching the video, activities going on in the room around me were on my mind.	2.7 (2.2) (n = 45)	2.7 (2.3) (n = 40)
3. I could picture myself in the stories described in the video.	5.3 (2.0) (n = 46)	5.4 (1.9) (n = 40)
4. I was mentally involved in the stories in the video while watching.	5.7 (1.7 (n = 46)	5.5 (2.0) (n = 40)
5*. After watching the video, I found it easy to put it out of my mind.	3.4 (2.1) (n = 46)	3.5 (2.3) (n = 39)
6. I wanted to learn what happened to women after each story ended.	5.1 (2.1) (n = 46)	5.3 (2.1) (n = 40)
7. The stories in the video affected me emotionally.	4.9 (2.2) (n = 46)	4.8 (2.1) (n = 40)
8. I found myself thinking of how the women's' lives might have turned out.	5.1 (2.1) (n = 46)	4.9 (2.3) (n = 39)
9*. I found my mind wandering while watching the video.	3.1 (2.2) (n = 46)	3.3 (2.3) (n = 40)
10. The stories in the video are relevant to my everyday life	5.1 (1.9) (n = 46)	4.2 (2.2) (n = 40)
11. The stories in the video have changed my life.	4.1 (2.1) (n = 46)	4.1 (2.4) (n = 40)

Notes:

SD = standard deviation

^{*} item reversed scored

 Table III

 Perceived Realism Scale results among women assigned to the intervention arm.

Question	30 days Mean (SD)	90 days Mean (SD)
1. The stories in the video are realistic and believable.	5.8 (1.7) (n = 46)	5.5 (1.9) (n = 40)
2*. The background for the stories on the video just don't seem real.	3.6 (2.3) (n = 45)	3.6 (2.2) (n = 39)
3. The women in the stories on the video are like people you and I might actually know.	5.6 (1.9) (n = 46)	5.2 (1.9) (n = 39)
* 4 . The everyday experiences of women living with HIV and AIDS is not portrayed very accurately in the stories on the video.	4.0 (2.3) (n = 45)	3.8 (2.3) (n = 40)
5. Events that have actually happened, or could have happened, are discussed in the stories in the video.	6.0 (1.3) (n = 46)	5.5 (1.73) (n = 40)
6. The stories on the video show that women living with HIV or AIDS experience many challenges.	6.5 (1.0) (n = 46)	6.3 (1.31) (n = 40)
* 7 . I have a hard time believing the women in these stories are real because the basic situation is so far-fetched.	2.7 (2.2) (n = 45)	2.7 (2.2) (n = 39)
8. The stories on the video deal with the kind of very difficult choices people in real life have to make.	6.0 (1.5) (n = 46)	5.8 (1.7) (n = 40)

Notes:

SD = standard deviation

^{*} item reversed scored