SISTA South Africa: The adaptation of an efficacious HIV prevention trial conducted with African-American women for isiXhosa-speaking South African women

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Abstract

Although new HIV treatments continue to offer hope for individuals living with HIV, behavioural interventions shown to reduce HIV risk behaviour remain one of the most powerful tools in curbing the HIV epidemic. Unfortunately, the development of evidence-based HIV interventions is a resource-intensive process that has not progressed as quickly as the epidemiology of the disease. As the epidemic continues to evolve, there is a need to expedite the development of evidence-based HIV interventions for populations that are often disproportionately impacted by HIV/AIDS. One mechanism of accelerating the development process is to adapt evidence-based HIV interventions for vulnerable populations. The aim of this paper was to describe the adaptation process of a HIV intervention for African-American women for black South African Xhosa women. For African-American women the intervention was effective in increasing consistent condom use, sexual self-control, sexual communication, sexual assertiveness and partner adoption of norms supporting consistent condom use.

Keywords: Intervention, women, cultural adaptation, HIV transmission risk behaviours.

Résumé

Bien que les nouveaux traitements du VIH continuent d'offrir un espoir pour la vie des personnes vivant avec le VIH, les interventions comportementales connues pour réduire les comportements à risques en matière de VIH font toujours partie des outils les plus puissants pour freiner l'épidémie de VIH. Malheureusement, le développement d'interventions de lutte contre le VIH basées sur des preuves est un processus intensif en ressources qui n'a pas progressé aussi rapidement que l'épidémiologie de la maladie. Parce que l'épidémie continue à évoluer, il est nécessaire d'accélérer le développement des interventions de lutte contre le VIH basées sur des preuves pour les populations qui sont souvent disproportionnellement affectées par le VIH/SIDA. Un mécanisme d'accélération du processus de développement est d'adapter les interventions de lutte contre le VIH basées sur des preuves aux populations vulnérables. L'objectif de cet article est de décrire le processus d'adaptation d'une intervention de lutte contre le VIH pour les femmes afro-américaines aux femmes Xhosa sud-africaines. Pour les femmes afro-américaines, l'intervention s'est révélée efficace pour accroître l'utilisation régulière de préservatifs, favoriser le contrôle de soi en matière de sexualité, la communication sexuelle, l'affirmation sexuelle et l'adoption par le partenaire de normes soutenant l'utilisation régulière de préservatifs.

Mots clés: Interventions, femmes, adaptation culturelle, comportements à risque de transmission du VIH.

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This study was supported with NIH funding (grant #3P30 AI050409-06SI).

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Introduction

Globally, at the end of 2004, nearly 37.8 million people were living with HIV. Of these, nearly 25 million were living in sub-Saharan Africa (UNAIDS/WHO, 2004). More than 70% of women and girls infected with HIV live in sub-Saharan Africa, where adult women are 1.3 times more likely than males to be infected (UNAIDS/WHO, 2004). In 2006 it was estimated that in South Africa, the HIV prevalence for women between the ages of 15 and 49 was 20.2%, compared with 16.6% among men of the same age category (Dorrington, Johnson, Bradshaw & Daniels, 2006). Therefore, conducting HIV prevention trials with young South African women is critically important. The vulnerability of young women is exacerbated by limited options for preventing HIV infection and the complex gender dynamics that affect women's ability to negotiate condom use (Eng & Butler, 1997; Wingood & DiClemente, 2000).

Although available HIV treatments offer hope for individuals living with HIV, behavioural interventions, with a skills-training component shown to reduce HIV risk-behaviour, remain one of the most powerful tools in curbing the HIV epidemic (Herbst *et al.*, 2005; Johnson, Carey, Marsh, Levin, & Scott-Sheldon, 2003; South African Department of Health, 2006). Much work has been done in South Africa to create awareness of HIV and AIDS prevention through multi-media campaigns (e.g. LoveLife) and school-based life skills interventions. However, very few behavioural interventions targeted to specific vulnerable populations have been tested, and even fewer that have shown efficacy in reducing HIV incidence and STI prevalence. (Harrison, Smit, & Myer, 2000; James, Reddy, Ruiter, McCauley & van de Borne, 2006; Pettifor, Kleinschmidt, Levin *et al.*, 2005). 'Stepping Stones', one of the first few behavioural interventions to have been tested in a randomised controlled trial for effectiveness in South Africa, did not result in a significant reduction of STI prevalence or improvement of condom use behaviour among intervention participants (Jewkes, Nduna, Levin *et al.*, 2008).

Although evidence consistently indicates that women, particularly black, low-income women in South African bear the brunt of the epidemic, the development of efficacious behavioural interventions for this vulnerable group has lagged behind (Collinge, 2005; McKleroy, Galbraith, Cummings *et al.*, 2006; Reddy, Meyer-Weitz, van den Borne & Kok, 1999). One mechanism of expediting the development process is the adaptation of HIV interventions that have documented efficacy for local vulnerable populations.

Adaptation, defined as 'the degree to which an innovation is changed or modified by a user in the process of its adoption and implementation' (Rogers, 1995, p. 174), can include deletions or additions, modifications of existing components, changes in the manner or intensity of components, or cultural modifications required by local circumstances (CSAP, 2001; McKleroy *et al.*, 2006). Adaptation of an evidence-based intervention is often considered a distortion of the intervention, because efficacy of the adapted intervention is rarely examined. However, adapting a compatible intervention can reduce the costs of designing a new programme, enhance the research capacity of the local scientists adapting the programme, increase community ownership of the programme, and build the capacity of local community members (Reddy, Taylor & Sifunda, 2002; Rogers, 1995).

The American Centres for Disease Control and Prevention's (CDC) behavioural intervention project has identified several effective behavioural interventions and has packaged them for diffusion in the USA (www.effectiveinterventions.org). The SISTA (Sisters Informing other Sisters about Topics on AIDS) is listed among the best evidence-based interventions targeting low-income African American women, and since 2002 it has been disseminated by the CDC to community-based organisations and AIDS service organisations in every state in the USA (Collins, Harshbarger, Sawyer & Hamdallah, 2006; Prather, Fuller, King *et al.*, 2006; Wingood & DiClemente, 2006).

The SISTA intervention was selected for adaptation because it was developed for a population that is similar to South African women in terms of socio-economic and demographic factors, and gender-related determinants of HIV risk and protective behaviours (Falan & Lucas, 1998; Hade, Smith, Moore, & Holmberg, 2001; Levy & Richard). SISTA is a five-session, group-led HIV prevention intervention for African-American women, 18 - 29 years of age, based on Social Cognitive Theory (Bandura, 1994) and the Theory of Gender and Power (Wingood & DiClemente, 2000).

Session 1 focuses on ethnic and gender pride, encourages women to reflect on the positive aspects of their gender and cultural heritage, and builds a sense of personal worth for the women. **Session 2** provides information regarding behaviours that place African-American women at risk of contracting an STI, and strategies to protect themselves. **Session 3** focuses on the enhancement of distinguishing passive, aggressive and assertive communication styles, and women are taught effective safer sex negotiation skills. **Session 4** emphasises fostering positive norms towards consistent condom use and proper condom use skills. **Session 5** emphasises behavioural self-management and coping skills in challenging situations (i.e. with a partner who is not supportive of condom use).

Results of a randomised controlled trial demonstrated that, compared with the control condition, women in the SISTA

intervention demonstrated increased consistent condom use (adjusted odds ratio (OR) = 2.10; 95% confidence interval (CI): 1.03 - 4.15), greater sexual self control (OR = 1.90, 95% CI: 1.00 - 3.60), greater sexual communication (OR = 4.10, 95% CI: 1.67 - 10.01), greater sexual assertiveness (OR = 1.80, 95% CI: 1.01 - 3.20), and increased partner adoption of norms supporting consistent condom use (OR = 2.1, 95% CI: 1.08 - 3.87) among an African-American group of women living in the USA (DiClemente & Wingood, 1995).

The aim of this paper is to describe the process of adapting the SISTA intervention for black isiXhosa speaking women in the Western Cape Province of South Africa. The adaptation process was conducted in a collaborative process between behavioural scientists from the Medical Research Council, Cape Town, South Africa and behavioural scientists from Emory University, Atlanta, USA.

The adaptation process consisted of several phases. These phases include:

- development of a framework for collaboration between South African and USA researchers
- conducting qualitative research to gain a greater understanding of the determinants of HIV risk for South African Xhosa women
- meeting with key South African stakeholders
- pre-testing of the original intervention with Xhosa participants
- adapting and translating the intervention
- conducting a pre-test of the adapted intervention.

These phases are described in greater detail below.

Phase I: Collaborations undertaken to adapt the SISTA intervention

The South African research team included isiXhosa and English-speaking researchers, which greatly facilitated the adaptation process. A detailed plan to map out the collaboration and adaptation process was developed. These included plans for: (a) adapting the HIV intervention curricula; (b) developing culturally appropriate health education materials; (c) training local health educators in the adapted HIV intervention; and (d) translating the HIV intervention into the local language (isiXhosa).

The South African researchers endeavoured to fully understand the original intervention and the context within which the intervention was implemented. This was accomplished by close interaction with the USA researchers, observation of the implementation of the SISTA intervention with African-American women, and evaluation of publications illustrating the theoretical framework underlying the intervention and the efficacy of the SISTA intervention. Furthermore, the South African research team, in collaboration with the USA research team, held meetings to create a plan for the adaptation and translation process.

Phase II: Qualitative research to understand determinants of HIV risk for South African Xhosa women, and reviewing the literature

Focus group discussions aimed to gather information on determinants of sexual behaviour, the context, as well as the appropriateness and desirability of the constructs of the theory of gender and power underlying the intervention. This information was then infused into the adaptation process both in terms of content and methodology.

Participants

The focus group participants were eleven 18 - 35-year-old isiXhosa-speaking women who tested HIV negative at a voluntary counselling and testing (VCT) clinic in a peri-urban area on the outskirts of Cape Town. Participants provided consent to participate in focus group discussions. The discussions were facilitated by bilingual (English and isiXhosa) researchers. This team provided the participants with the opportunity to explain sensitive and complex issues in isiXhosa where necessary. The study protocol was approved by the Ethics Committee at the South African Medical Association (SAMA) prior to implementation.

Outcomes of focus group discussions

All the participants agreed on the need for a health education intervention targeting HIV-negative isiXhosa-speaking women. They stated that although they received information from the local media campaigns, the style of delivery and even the content 'left people with many questions'. They explained that 'women in stable relationships are often exposed to HIV by their partners and that the nature of these relationships created obstacles to preventive behaviour such as condom use'. The women requested information on how to deal with men who refused to use condoms, and on how to encourage men to seek counselling and testing for HIV and treatment for STI. They also asked for training in communication skills, especially in negotiating safe sex, including regular condom use and seeking STI treatment. The focus group participants also expressed feelings of being conflicted or ambivalent about 'how they were living their lives' because they were 'deviating from their culture', e.g. 'by living with a boyfriend'. Xhosa women are traditionally expected to

abstain from premarital sex. They also indicated that they were aware that these behaviours and situations placed them at risk for disease and abuse in general.

The study investigators believed that cultural pride should be nurtured and integrated into the HIV prevention programme. During the focus group participants felt that traditional beadwork was a craft that exemplified cultural pride and it was decided that this should be implemented into the HIV prevention programme.

Phase III. Meeting with key stakeholders

Prior to adapting the SISTA intervention, meetings were held with local stakeholders, including interested community members, clinic directors and nurses who work with isiXhosa women at risk of HIV, to obtain their input in designing an HIV prevention intervention for the target population. Some of the stakeholders were identified as potential collaborators, for activities such as participant recruitment, identification of intervention facilitators and locations where participants could receive treatment for an STI for the ensuing pilot and trial of the adapted intervention.

Phase IV: Pre-testing of the SISTA intervention for African-American women

Focus group participants were requested to assist in a pre-test of the American version of the SISTA intervention, and asked to provide input for adapting the intervention to make it more relevant to their peers. Their comments were then used as a background for the modifications made throughout the intervention

Phase V. Adapting SISTA to enhance its relevance for isiXhosa women in South Africa

Adaptations made throughout the SISTA intervention

After the pre-test of the original intervention, the theory-based core elements of the original programme were found to be pertinent to the South African context and were therefore retained. The term 'core elements' refers to those components that are critical features of an intervention's intent and design, and that are thought to be responsible for its effectiveness (www.effectiveinterventions.org).

Several concepts were added to the intervention that more effectively and accurately captured African society as being more collective and communal. For example, the intervention was framed in terms of words such as 'we', 'us' and 'our', as opposed to 'I', 'me', or 'my' wherever possible. Additionally, it was agreed that more time in the curriculum must be allowed for discussions and exploration. Names, terms, and regional slang common in South Africa were incorporated into the curriculum. While the name SISTA was retained, an isiXhosa motto of 'Bahlokom' abafazi kwamililizwe!' meaning 'Women will rise up so that our nation gets healed!' was added. This motto was read at the beginning of every session and was followed by detailed discussions of how this motto could apply to reducing women's HIV vulnerability.

Cultural adaptation included replacing the poetry written by African-American women with poetry by isiXhosa women to foster a sense of self-esteem and self-worth, and creating beadwork as a stimulus for discussions about protective aspects of their culture, and sharing of individual experiences. Finally, during the focus groups it emerged that participants were unlikely to commit to five 3-hour sessions over a 5-week period because of competing activities. They thought that participants could lose interest midway and not complete the programme. To ensure retention of participants through the entire intervention, the original five 2-hour session intervention was condensed into three 3-hour sessions. The intervention was then translated by the South African researchers into isiXhosa for implementation. A description of the 3-session HIV prevention intervention is described below.

The adapted SISTA intervention

Session 1 still focused on ethnic and gender pride, encouraged women to reflect on the positive aspects of their gender and cultural heritage, and built their self-esteem. Poetry by isiXhosa women was introduced to stimulate discussion about gender and cultural pride, the strengths of isiXhosa women role models, as well as the challenges of being an isiXhosa woman. Much of the discussion of the challenges reflected on the role of apartheid in disempowering isiXhosa women. Participants also discussed personal and community values that could facilitate the adoption of safer sexual practices. HIV/AIDS educational brochures were distributed and discussed. **Session 2** provided information regarding personal behaviour and realities in the communities that increased women's risks of STI infection. Participants were taught correct male condom application and care, assertive communication, and condom use negotiation skills. **Session 3** sought to improve participants' assertive negotiation of safe sex and condom use skills with a sexual partner, to identify ways

to encourage a partner to get tested for STI and HIV and get treated for STI, and finally to recognise signs of an unhealthy relationship and methods of safely resolving relationship problems. The skill development components of each session involved modelling of the skill by health educators, followed by practice and role playing by participants to reinforce skills. All workshops ended with traditional Xhosa songs, as well as creating traditional bead jewellery (bracelets, necklaces and rings).

Phase VI. Pre-test of the adapted intervention

Training of facilitators to implement the intervention

A key phase of adapting an evidence-based intervention is training staff to implement the intervention with fidelity. Therefore, for 1 month, African-American health educators implemented a training programme at the MRC to train the South African facilitators, using a train-the-trainers strategy. Facilitators were black South African women who spoke and read isiXhosa fluently, had completed their secondary education and were selected based on their demonstrated communication skills and enthusiasm for the project, as well as prior experience working in the field of HIV prevention. The master trainers conducted thorough training that consisted of facilitation techniques, basic STI and HIV knowledge, and a demonstration of each activity within the curriculum. The trainees then performed mock intervention sessions with staff members as their participants to practise and reinforce their skills. While this initial month of training was conducted in English, this small group of trained South African facilitators where then responsible for training a larger group of facilitators in isiXhosa. This larger group of facilitators pre-tested the SISTA HIV intervention.

Pre-test of the adapted SISTA intervention

The pre-test in this context describes a qualitative evaluation of the adapted intervention with the pilot participants following the implementation of the adapted intervention. The complete description of the pilot will be presented in subsequent publications.

Participants were eleven 18 - 35-year-old isiXhosa-speaking women who tested HIV negative at a VCT clinic in a peri-urban area on the outskirts of Cape Town. They had provided informed consent to participate in the pilot of the adapted SISTA intervention, which included completing a baseline survey, providing one self-collected vaginal swab, and completing intervention sessions. In this report we only describe the response of participants to the intervention. The trained South African facilitators delivered the adapted intervention in isiXhosa in order to assess the intervention for face and construct validity. Following the intervention workshops, participants were requested to comment on the adapted SISTA intervention.

Results

There was an overwhelming response of satisfaction with the programme as well as identification with the various vignettes that were used during the role-play activities. The visual material, which included posters and handouts, was described as relevant and sensitive, and received general approval from the group. Regarding comprehension, the participants expressed approval of the sensitive way in which complex messages were explained in their native language. The translation of the intervention into isiXhosa was hailed as important, and the participants indicated that this provided them with terminology that they could use in their daily communications with their male partners. They felt that all the health education messages were infused with elements of their real life situations. They expressed appreciation for the cultural sensitivity that was integrated into all aspects of the intervention. Finally, questions in response to the learning and teaching methodology indicated that they enjoyed the intervention because it comprised multiple methods of participatory teaching and learning; for example, in-depth group discussions, role-plays, one-to-one sharing, writing, and listening to music.

Discussion

The final adapted intervention retained the core elements of the original SISTA intervention, but was adapted with respect to cultural elements and prevailing themes increasing vulnerability to HIV among South African isiXhosa women. Furthermore, participants in a pre-test of the adapted intervention indicated that the message was relevant to them.

In order to ensure that cultural elements of the local population were properly integrated into the adapted intervention while maintaining the core of the intervention, it was imperative to create close and respectful inter-institutional collaborations. This resulted in the capacity development of both partners in the collaboration. The young South African researchers benefited in this association by gaining critical understanding of the theoretical and contextual background of the original programme, as well as methods for translating theory into an intervention, while all researchers gained new understanding of determinants of protective behaviour among South African women and practical experience in adapting an intervention to the South African setting.

Culturally sensitive collaborations between international institutions and South African researchers are critical, as these are more likely to result in continued mutual capacity development where necessary, appropriate cultural translation and adaptation of interventions, and community ownership of newly adapted programmes (Reddy, Taylor & Sifunda, 2002). Hopefully these would result in accelerated development of interventions for vulnerable populations in South Africa.

We followed a structured process similar to the ADAPT-ITT model that specifies eight important phases that have been used in the adaptation of interventions for different populations (Wingood & DiClemente, 2008). A structured process of adapting evidence-based interventions increases the consistency of how these interventions are discussed, and a transparent way in which decisions about which elements are added or removed are made. This in turn will facilitate future evaluation and continued improvement of the adapted interventions.

We hope that this adaptation process would be informative to researchers seeking to adapt interventions in South Africa. It is important to note that the specific modifications of the SISTA interventions described in this paper were specifically suited to young Xhosa women in the Western Cape Province and may not be appropriate for women in different contexts. Furthermore, we only describe face validity outcomes of the adapted intervention; further evaluations are necessary to determine its efficacy in improving determinants of protective sexual behaviour among this population. To this end the efficacy of this adapted SISTA intervention is currently being evaluated in a randomised controlled trial in the Western Cape Province of South Africa.

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