Radio role models for the prevention of mother-to-child transmission of HIV and HIV testing among pregnant women in Botswana

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SUMMARY

Although Botswana supports a program for the prevention of mother-to-child-transmission of HIV (PMTCT), many women initially did not take advantage of the program. Using data from a 2003 survey of 504 pregnant and post-partum women, we assessed associations between exposure to a long-running radio serial drama that encourages use of the PMTCT program and HIV testing during pregnancy. Controlling for demographic, pregnancy and other variables, women who spontaneously named a PMTCT character in the serial drama as their favorite character were nearly twice as likely to test for HIV during pregnancy as those who did not. Additionally, multiparity, knowing a pregnant woman taking AZT, having a partner who tested, higher education and PMTCT knowledge were associated with HIV testing during pregnancy. Identification with characters in the radio serial drama is associated with testing during pregnancy. Coupled with other supporting elements, serial dramas could contribute to HIV prevention, treatment and care initiatives.

Key words: HIV prevention; entertainment education; Botswana

INTRODUCTION

Botswana is a politically stable country of 1.7 million people in southern Africa (Government of Botswana, 2002). High rates of HIV infection (UNAIDS, 2006) threaten Botswana’s economic and political stability, however. HIV prevalence among pregnant women increased through 2003 to 37.4% (Botswana National AIDS Coordinating Agency, 2003). In 1999, the Government of Botswana piloted Africa’s first free national public sector program for the prevention of mother-to-child-transmission (PMTCT) and integrated the program into routine maternal child health services in 2001 (Seipone et al., 2004; Creek et al., 2006). The program offers free counseling, HIV testing, antiretroviral prophylaxis for mothers and infants and infant formula for 12 months. Together, these interventions can reduce rates of transmission from mother-to-child from ~40 to ≤5–10% depending on medications taken (Nolan et al., 2002). Unfortunately, service uptake was relatively low in the first years of service expansion. In 2002, 49% of pregnant women were tested for HIV (Creek et al., 2006), and 27% of HIV-positive pregnant women received recommended medications to protect their infants from HIV infection.
Although public service announcements and counseling sessions raised awareness of PMTCT services, further efforts to prompt widespread use of PMTCT services were needed. Mass media programs, including entertainment-education dramas, have been shown to increase knowledge and reduce high-risk sexual behaviors in developing countries (Bertrand et al., 2006). In 2000, the Government of Botswana collaborated with the United States Centers for Disease Control and Prevention (CDC) to develop and implement a radio serial drama and community reinforcement activities to encourage safer behaviors and promote the use of PMTCT services. In this paper, we describe this intervention, known as Makgabaneng, and analyze the survey data to assess whether exposure to the drama is associated with HIV testing during pregnancy.

The MARCH strategy

Makgabaneng is based on the MARCH strategy (Modeling and Reinforcement to Combat HIV/AIDS) (Galavotti et al., 2001). The strategy is grounded in social cognitive theory (Bandura, 1986) and draws on behavioral science theory, research and promising program strategies (McGuire, 1989; Piotrow et al., 1990; O’Brien and Albrecht, 1992; Nariman, 1993; Papa et al., 2000; Boulay et al., 2002). The MARCH strategy focuses on two fundamental principles: modeling, showing people how to change, and reinforcement, supporting their efforts to change and to maintain healthy behaviors. MARCH combines key aspects of individual behavior change with efforts to change norms into two main program components: (i) entertainment-education in the form of a long running serial drama and (ii) reinforcement activities at the community level. This paper focuses on the Makgabaneng radio serial drama because the reinforcement activities had not been widely implemented at the time of data collection.

Modeling

People learn in two main ways: through direct experience and through observing others (role models) (Bandura, 1986). Role models educate by providing information on how to perform a behavior, persuade by showing positive consequences of different behaviors and motivate by showing the successful performance of a behavior. Role models are particularly good at influencing efficacy beliefs: when people see a model similar to themselves successfully perform a new behavior, it can increase their confidence (self-efficacy) in their own ability to perform the behavior (Bandura, 1997).

Psychosocial and communication research suggests that people learn from role models in the media such as characters from books, dramas and television as well as from parents, teachers and peers (Cohen, 1999). Further, identification with characters is linked to the demonstrated effects of media on behavior (Basil, 1996). Although there is no consistent method for measuring identification, feelings of affinity, friendship, similarity and liking of media characters are common attributes in what is generally understood as ‘identification’ (Maccoby and Wilson, 1957; Wilson, 1993; Cohen, 1999; Cohen, 2001). Serial dramas may promote greater levels of identification because of their duration (Rubin and McHugh, 1987).

MARCH dramas show characters changing over time, modeling behavioral and attitudinal changes for the audience to emulate. An evaluation of a Tanzanian radio serial drama using a modeling approach showed evidence of effects on several family planning and HIV-related behaviors, including increased visits to health clinics (Rogers et al., 1999; Vaughan et al., 2000).

The Makgabaneng radio serial drama

Makgabaneng, ‘rocky road’, is written by Batswana (the citizens of Botswana, plural) and broadcast in Setswana (the national language). Since its launch in August 2001, Makgabaneng has aired in two 15 min episodes per week plus a single 30 min recap episode on the national radio station. Approximately 250 episodes of Makgabaneng had broadcast prior to survey administration in September 2003.

Makgabaneng aims to encourage people to think and act in ways that will help them avoid HIV infection and transmission and to support those affected by HIV/AIDS. The drama includes good and bad characters, as well as transitional characters that are designed to be like the audience. Transitional characters struggle and change over time, eventually achieving specific behavioral goals (e.g. getting an HIV test). In the process of changing their behavior, transitional characters model new
ways of thinking, overcoming obstacles to change and positive consequences of change. Thus, transitional characters are designed to be role models for the audience.

Encouraging uptake of PMTCT is one objective of *Makgabaneng*. Storylines and characters provide information about HIV testing during pregnancy and demonstrate the benefits of participating in the PMTCT program. Two major PMTCT storylines with three main female characters—Mary, Masego and Cecilia—unfolded during the 250 episodes. In one storyline, Mary, a negative role model for PMTCT, uses sexual relationships to procure money, clothes and other goods. When Mary realizes she is pregnant, she delays getting an HIV test. Even after learning she has HIV, she refuses to enroll in the PMTCT program. Her baby, Hope, is born HIV-positive. Although Mary mainly feeds Hope formula, she occasionally breastfeeds when other people question her use of formula. Hope dies shortly after birth.

In the other major PMTCT storyline, Masego, a transitional character who models positive behavior changes related to PMTCT, becomes pregnant after being raped by a male friend. Cecilia, a friend, supports Masego as she deals with the aftermath of the rape, decides to keep the baby and eventually gets tested and learns she has HIV. With Cecilia’s encouragement, Masego enrolls in the PMTCT program, following the advice of the doctors and nurses. Masego formula feeds her baby, explaining to those who question her that she is HIV-positive and formula feeds for the health of her baby (who is HIV-negative).

Our study aimed to establish whether attention to the PMTCT role models in *Makgabaneng* was associated with HIV testing during pregnancy among a sample of 504 pregnant and post-partum women in Francistown, Botswana. Specifically, we hypothesized that women who identified with PMTCT role models would be more likely to test than women who did not.

**METHODS**

**Survey implementation**

As part of a survey exploring reasons for the low uptake of PMTCT services, we asked questions about *Makgabaneng*. The survey was conducted in September 2003, before routine ‘opt-out’ testing began in health facilities in Botswana (Seipone et al., 2004) and by which time *Makgabaneng* had been airing for nearly 2 years. The survey was conducted in Francistown, Botswana’s second largest city. Pregnant and post-partum women were identified in 10 of Francistown’s 12 antenatal clinics (excluded sites see fewer than five new antenatal clients per month), one clinic in an adjacent rural area and the maternity unit of the public hospital, where more than 90% of Francistown’s annual deliveries occur. All women presenting to the study sites on every day of September 2003 were eligible and invited to participate in the study. A sample size of 500 was determined to be sufficient for analysis in the larger study and was achieved in 1 month of data collection.

This study was reviewed and approved by Botswana’s Health Research Development Committee of the Ministry of Health and the CDC. Written consent for interview was requested from each woman approached; approximately 75% agreed to be interviewed. A total of 504 women were interviewed. Women who refused typically stated that they were too busy or too tired to participate.

University-educated women aged 20–28 were trained as interviewers and conducted the 45–60 minutes face-to-face interviews in private in Setswana (94%) or English (6%). Written consent to review each client’s logbook records at the clinic or hospital was sought at the end of each interview. All participants agreed to have their logbook records reviewed. Survey documents were kept anonymous; separate sheets containing a survey ID number allowed linking of names to logbook records and were kept in locked boxes.

**Measures**

We used a combination of interview response and logbook record to construct a measure of HIV testing during pregnancy. We classified a woman as having tested for HIV during this pregnancy if (i) she reported having had an HIV test (whether confirmed or not by the logbook record, because tests were not always recorded in a logbook) or (ii) she did not report having an HIV test at the time of the survey but a review of the logbook records indicated that she had been tested by the time she gave birth.
To be conservative, we confirmed a stated intention to test with a documented test. This probably excluded some women who acted on their intention but whose test results could not be found in their logbook records. HIV testing outside of ANC in Botswana was extremely low prior to September 2003 (Botswana National AIDS Coordinating Agency, 2003).

Of the 504 women interviewed, women who reported having an HIV test were asked their main reason for getting tested. We excluded seven women from all analyses because they indicated their HIV test was during a previous pregnancy. An additional 53 women who reported they had not been tested and that they either intended to test or they were unsure about testing were excluded because staff could not find logbook records to confirm whether they got tested. These exclusions resulted in data from 444 women available for the analysis of HIV testing.

Although the survey’s main purpose was not to evaluate the radio serial drama, we included questions to assess exposure and attention to Makgabaneng. Participants were asked if they had ever heard of Makgabaneng, if they had ever listened to it, how frequently they listened to it, whether they could name any characters and, if so, to name their favorite character. For analyses, we defined exposure to Makgabaneng as listening at least weekly versus not listening or listening less than weekly.

Naming a favorite character does not measure all aspects of identification. However, knowing and paying attention to specific characters and liking a character (as one might with a favorite character) have been used to define and measure identification (Cohen, 2001). An open-ended question prompted women to name all the characters they could remember from Makgabaneng.

Women who named at least one character from the drama then were asked to name their favorite character. We coded women as naming a PMTCT character as their favorite if they named Mary, Masego or Cecilia. If women named a character other than a PMTCT character as their favorite, did not name a favorite character, did not name any characters or did not listen to the drama at all, we classified them as not having named a PMTCT character as a favorite.

In addition to Makgabaneng, there are several other sources of information about PMTCT that might influence women’s decisions to get tested. Women could have spoken to someone or watched a video about PMTCT in the clinic or spoken to someone in their community about PMTCT. Because nearly all women were exposed to at least one source of information about PMTCT, we created a dichotomous measure to compare women who received information from none or one of these sources to women who received information from two or more sources. A dichotomous measure of PMTCT knowledge compared women who scored the median of 9 correct or higher (on a 12-item measure) to those scoring below nine. Age, marital status, education level, whether the current pregnancy was planned and whether the current pregnancy was a first pregnancy were included because of their potential associations with HIV testing.

**Statistical analyses**

Cross-tabulation and chi-square analyses first examined if naming a PMTCT character as a favorite was associated with HIV testing during pregnancy or with other participant characteristics. Then, we used multi-variate logistic regression to control for potential confounding factors in the relationship between naming a PMTCT character as a favorite and HIV testing during pregnancy: parity, whether the pregnancy was planned, exposure to other PMTCT interventions, knowing a pregnant woman taking AZT, demographic characteristics, having a partner who tested for HIV and knowledge about PMTCT. Correlations among these variables were typically <0.25. We compared the bivariate and multivariate models using a goodness of fit test to assess whether the addition of the control variables explained a statistically significant portion of the variance. All analyses were conducted using SPSS 10.1 for Windows.

**RESULTS**

**Characteristics of survey respondents**

The sample reflects the age distribution of antenatal clients in Botswana [mean = 24.4 years (SD = 6.1, range 15–52 years old)]. However, women in our sample were more likely than the overall patient pool to be pregnant for the first
time, unmarried, and have at least a secondary education (Creek et al., 2007a). Forty-five percent were primaparous, ~60% reported being unmarried and not living with a partner and 31% had a senior secondary education. Of the current pregnancies, 39% were planned. Sixty-nine percent of the women were tested for HIV during pregnancy.

**Exposure and attention to Makgabaneng**
Levels of exposure to Makgabaneng in this sample were similar to levels of exposure in a national survey (Pappas-DeLuca et al., 2005). Approximately four of five women (79%) reported ever listening and just over half (53%) reported listening to Makgabaneng at least once a week. Data suggest that women did pay attention to the PMTCT storylines. In response to unprompted questions, over 51% of women recalled one or more of the PMTCT characters and 20% named one of the PMTCT characters as their favorite character. Women who listened to Makgabaneng at least once a week were significantly more likely than others to name a PMTCT character as their favorite ($P < 0.01$).

Table 1 presents unadjusted associations between naming a PMTCT character as a favorite character and participant characteristics. Listening to Makgabaneng was not associated with HIV testing during pregnancy in bivariate analyses (68% of weekly listeners versus 72%)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Named PMTCT character as favorite (%)</th>
<th>Did not name PMTCT character as favorite (%)</th>
<th>Total</th>
<th>$N$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age, years ($n = 496$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15–19</td>
<td>25.0</td>
<td>75.0</td>
<td>108</td>
<td>21.8</td>
<td></td>
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<tr>
<td>20 or older</td>
<td>19.3</td>
<td>80.7</td>
<td>388</td>
<td>78.2</td>
<td></td>
</tr>
<tr>
<td>Education ($n = 497$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than senior secondary</td>
<td>19.0</td>
<td>81.0</td>
<td>343</td>
<td>69.0</td>
<td></td>
</tr>
<tr>
<td>Senior secondary or above</td>
<td>24.0</td>
<td>76.0</td>
<td>154</td>
<td>31.0</td>
<td></td>
</tr>
<tr>
<td>Marital status ($n = 497$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not living with partner</td>
<td>21.9</td>
<td>78.1</td>
<td>297</td>
<td>59.8</td>
<td></td>
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<tr>
<td>Married or living with partner</td>
<td>18.5</td>
<td>81.5</td>
<td>200</td>
<td>40.2</td>
<td></td>
</tr>
<tr>
<td>Pregnancy planned ($n = 489$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>22.0</td>
<td>78.0</td>
<td>300</td>
<td>61.3</td>
<td></td>
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<tr>
<td>Yes</td>
<td>17.5</td>
<td>82.5</td>
<td>189</td>
<td>38.7</td>
<td></td>
</tr>
<tr>
<td>Number of pregnancies ($n = 495$)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First</td>
<td>19.2</td>
<td>80.8</td>
<td>224</td>
<td>45.3</td>
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<tr>
<td>Second or more</td>
<td>21.4</td>
<td>78.6</td>
<td>271</td>
<td>54.7</td>
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<tr>
<td>Other PMTCT information sources ($n = 497$)</td>
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<td></td>
<td></td>
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<tr>
<td>None or 1</td>
<td>20.2</td>
<td>79.8</td>
<td>277</td>
<td>55.7</td>
<td></td>
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<tr>
<td>2 or 3</td>
<td>20.9</td>
<td>79.1</td>
<td>220</td>
<td>44.3</td>
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<tr>
<td>PMTCT knowledge score ($n = 497$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Less than median</td>
<td>17.2</td>
<td>82.8</td>
<td>157</td>
<td>31.6</td>
<td></td>
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<tr>
<td>Median (9 of 12) or above</td>
<td>22.1</td>
<td>77.9</td>
<td>340</td>
<td>68.4</td>
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<tr>
<td>Know pregnant woman taking AZT ($n = 497$)</td>
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<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>No or do not know</td>
<td>21.0</td>
<td>79.0</td>
<td>434</td>
<td>87.3</td>
<td></td>
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<tr>
<td>Yes</td>
<td>17.5</td>
<td>82.5</td>
<td>63</td>
<td>12.7</td>
<td></td>
</tr>
<tr>
<td>Makgabaneng listenership ($n = 497$)</td>
<td></td>
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<tr>
<td>Less than once a week</td>
<td>13.9</td>
<td>86.1</td>
<td>230</td>
<td>46.3</td>
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<td>Once a week or more</td>
<td>26.2</td>
<td>73.8</td>
<td>267</td>
<td>53.7</td>
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<tr>
<td>Partner tested for HIV ($n = 497$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>21.2</td>
<td>78.9</td>
<td>380</td>
<td>76.5</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>18.8</td>
<td>81.2</td>
<td>117</td>
<td>23.5</td>
<td></td>
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<tr>
<td>HIV testing during pregnancy ($n = 444$)</td>
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<td></td>
<td></td>
<td></td>
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<tr>
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<td>86.1</td>
<td>137</td>
<td>30.9</td>
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</tr>
<tr>
<td>Yes</td>
<td>23.1</td>
<td>76.9</td>
<td>307</td>
<td>69.1</td>
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</table>

*a* Significant difference ($P < 0.05$).
of others) \( (\chi^2 = 0.88, \text{df} = 1, P = 0.35) \) or multivariate analyses \( (aOR = 0.76, 95\% \text{ CI} = 0.48–1.19) \) (not shown). However, women who named a PMTCT favorite character were significantly more likely to have tested for HIV during pregnancy \( (79\%) \) than those who did not \( (67\%) \) \( (\chi^2 = 5.02, \text{df} = 1, P = 0.03) \).

Unadjusted analyses (Table 2) showed that women who named one of the three main PMTCT characters from Makgabaneng as their favorite character were 1.77 times more likely to test for HIV during pregnancy \( (95\% \text{ CI} = 1.02–3.09) \). This relationship remained even after controlling for pregnancy characteristics, exposure to other PMTCT information, knowing a pregnant woman taking AZT, PMTCT knowledge, partner testing and demographic variables in the next model. Women who named a PMTCT character as their favorite were nearly twice as likely to test for HIV during pregnancy \( (aOR = 1.98, 95\% \text{ CI} = 1.10–3.59) \). Thus, the addition of controls did not significantly alter the association between attention to the Makgabaneng PMTCT role models and HIV testing during pregnancy.

The multivariate model (Table 2) shows that several other variables are also significantly associated with HIV testing during pregnancy. Multiparous women were half as likely to test for HIV during pregnancy \( (aOR = 0.50, 95\% \text{ CI} = 0.29–0.89) \). Women who knew a pregnant woman taking AZT were four times more likely to test for HIV during pregnancy \( (aOR = 4.22, 95\% \text{ CI} = 1.57–11.33) \), whereas those with at least a senior secondary level of education were approximately twice as likely to test for HIV during pregnancy \( (aOR = 1.86, 95\% \text{ CI} = 1.08–3.17) \). Women whose partners had tested for HIV were 3.22 times more likely to test for HIV themselves \( (95\% \text{ CI} = 1.70–6.10) \); those correctly answering at least nine of the knowledge items were 1.65 times more likely to test for HIV during pregnancy \( (95\% \text{ CI} = 1.03–2.63) \).

**DISCUSSION**

The 69% of women who tested for HIV during pregnancy represent a substantial improvement in the uptake of PMTCT services from 2002 when only 49% of women attending ANC were tested (Creek et al., 2006). Our analyses suggest that a number of factors may have contributed to this increase, including paying attention to PMTCT role models in the Makgabaneng drama. Our results are consistent with the
theoretical principles used to design the program (Galavotti et al., 2001) and support the importance of role models, both fictional (favorite characters) and real-life (pregnant women taking AZT), in facilitating behavior change. Pregnant women who pay attention to and identify with the characters in the PMTCT storylines may observe and learn from the characters as they struggle with decisions to test or accept PMTCT recommendations and as they experience positive and negative consequences of those decisions. For pregnant women who pay attention to or are engaged with the characters, the role models may educate and motivate them to get tested.

Although a large proportion of women listen to Makgabaneng regularly, neither being a weekly listener nor simply recalling a character in a PMTCT storyline were significantly associated with testing for HIV during pregnancy. Instead, it was the smaller subset of women who spontaneously named a PMTCT character as their favorite character who were more likely to test for HIV during pregnancy. This association is seen despite the fact that nearly all the women had been exposed to at least one other source of PMTCT information.

Naming a character as a favorite character may indicate a degree of identification with that character that goes beyond simply frequent listening or recall. Women who identify with characters in the PMTCT storylines may see the characters as role models for how to behave, or not to behave, during pregnancy. Previous research has shown entertainment-education programs to increase service uptake (Rogers et al., 1999; Vaughan et al., 2000), but there is a dearth of literature about fictional characters serving as role models. This study sheds light on how such entertainment-education programs might help prompt behavior change and encourage service utilization.

Knowing pregnant women taking AZT, or real-life role models, is also associated with HIV testing in bivariate and multivariate models. These women may have had healthy, HIV-negative babies and be more healthy themselves, thereby modeling the positive consequences of testing for HIV and taking AZT during pregnancy. These data are consistent with the theoretical principle that observation of positive outcomes in a real-life role model leads to positive outcome expectations.

Our results illustrate the potential effects of both fictional and real-life role models and support the utilization of role models in HIV/AIDS-related behavior change interventions. Role models provide information about how to perform a behavior and what to expect as a result. Further, familiarity with characters in a widely popular drama, as well as contact with real-life role models, may enhance a woman’s belief that social norms are consistent with these behaviors and that social and emotional support is available.

Emerging issues

Because multiparous women were significantly less likely to get tested, they may need targeted intervention efforts. Despite the overall high level of testing, multiparous women may be a sub-group at substantial risk for transmitting HIV to their offspring. Perhaps, these women believe that if their older children are not infected then they cannot be infected. Given the high prevalence rates in Botswana (UNAIDS, 2006), however, these women could be at risk for HIV and should be encouraged to test prior to every pregnancy.

The introduction of routine ‘opt-out’ testing in early 2004 changed the landscape of HIV testing in Botswana. Since then, HIV testing has increased substantially among clients in antenatal care (Seipone et al., 2004) as well as among the general population (Weiser et al., 2006; Steen et al., 2007). Although this study looked at HIV testing prior to the implementation of routine testing, a comprehensive PMTCT approach requires adherence to medications and to infant-feeding guidelines in addition to testing. Although testing increased after the introduction of routine testing, the proportion of identified HIV-positive women receiving medications for PMTCT did not (Creek et al., 2007b). Even in an environment of routine testing, entertainment-education programs such as Makgabaneng can help promote service uptake and changes in other behaviors required for a successful overall PMTCT effort. Further, such programs can encourage women and couples to seek testing prior to pregnancy and provide role models for women, whether HIV positive or negative, who successfully avoid unintended or unwanted pregnancies.
Limitations

Because the survey was cross-sectional, causality cannot be established. However, respondents’ reasons for testing and information about the Makgabaneng broadcast support our conclusions regarding the temporal relationship between the intervention and HIV testing during pregnancy. Through September 2003, HIV testing in Botswana outside of antenatal care was very low (Botswana National AIDS Coordinating Agency, 2003), and our analyses excluded the 2.6% of women in the sample who cited ‘previous pregnancy’ as their main reason for testing. By the time data collection began in September of 2003, 250 episodes of Makgabaneng had aired over 2 years and the main characters in the PMTCT storylines (Masego, Mary and Cecilia) had progressed through their storylines (e.g. Masego tested for HIV, took AZT and formula-fed her baby). This supports our conclusion that listening to Makgabaneng prompted HIV testing among this sample of pregnant women.

Other limitations of survey data also apply to our study. We based our outcome measure primarily on self-report of testing, and used logbook records to verify testing for those who did not self-report testing at the time of the interview. Some women may have falsely reported testing for HIV during pregnancy, but we have no reason to suspect this. The study was conducted in one area of Botswana (Francistown) and included only women already in antenatal care or delivering in a hospital maternity ward. Although nearly all women in Botswana receive antenatal care and deliver in a hospital (Botswana National AIDS Coordinating Agency, 2005; Steen et al., 2007), we cannot comment about any impact of Makgabaneng on women who did not seek care. Finally, women who did not participate in the survey may have been less likely to listen to Makgabaneng, if, in fact, they were too busy or too tired to attend to it. Unfortunately, we cannot tease out reasons for refusing to participate and the potential implications for the results.

Implications for practice

With the increasing availability of HIV testing, treatment and care in African countries, interventions that encourage and support the utilization of services, and the initiation and maintenance of related prevention and care behaviors, are greatly needed. Makgabaneng is one example of such an intervention. The program is designed to motivate listeners to change their behavior through entertaining storylines that depict characters making decisions and behavioral choices, experiencing positive and negative consequences and modeling new ways of thinking and behaving. Our results suggest that attention to and identification with specific characters in a radio serial drama may prompt behavioral change. Programs such as Makgabaneng have the potential to reach large audiences and thus provide a significant vehicle for HIV preventive interventions. Furthermore, additional efforts to bring HIV-positive women together in safe settings may allow them to serve as real-life role models for one another and facilitate the development of supportive social norms. Coupled with real-life role models and other supporting elements in the environment (e.g. ready access to services), entertainment-education interventions could make an important contribution to HIV prevention, treatment and care.

DISCLAIMER

The findings and conclusions in this report are those of the authors and do not necessarily represent the views of the funding agency.

FUNDING

This work was supported financially by the United States Centers for Disease Control and Prevention as part of routine activities.

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