

**HHS PUBLIC ACCESS**

Author manuscript

J Health Commun. Author manuscript; available in PMC 2016 February 01.

Published in final edited form as:

J Health Commun. 2015 November ; 20(11): 1264–1274. doi:10.1080/10810730.2015.1018643.**Reducing Concurrent Sexual Partnerships Among Blacks in the Rural Southeastern United States: Development of Narrative Messages for a Radio Campaign****JOAN R. CATES¹, DIANE B. FRANCIS¹, CATALINA RAMIREZ², JANE D. BROWN¹, VICTOR J. SCHOENBACH³, THIERRY FORTUNE⁴, WIZDOM POWELL HAMMOND⁵, and ADAORA A. ADIMORA^{2,3}**¹School of Journalism and Mass Communication, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA²Department of Medicine, School of Medicine, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA³Department of Epidemiology, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA⁴MEE Productions, Inc., Philadelphia, Pennsylvania, USA⁵Department of Health Behavior, Gillings School of Global Public Health, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA**Abstract**

In the United States, heterosexual transmission of HIV infection is dramatically higher among Blacks than among Whites. Overlapping (concurrent) sexual partnerships promote HIV transmission. The authors describe their process for developing a radio campaign (Escape the Web) to raise awareness among 18–34-year-old Black adults of the effect of concurrency on HIV transmission in the rural South. Radio is a powerful channel for the delivery of narrative-style health messages. Through six focus groups ($n = 51$) and 42 intercept interviews, the authors explored attitudes toward concurrency and solicited feedback on sample messages. Men were advised to (a) end concurrent partnerships and not to begin new ones; (b) use condoms consistently with all partners; and (c) tell others about the risks of concurrency and benefits of ending concurrent partnerships. The narrative portrayed risky behaviors that trigger initiation of casual partnerships. Women were advised to (a) end partnerships in which they are not their partner's only partner; (b) use condoms consistently with all partners; and (c) tell others about the risks of concurrency and benefits of ending concurrent partnerships. Messages for all advised better modeling for children.

HIV/AIDS remains a health crisis among Blacks. Although Blacks made up only 14% of the U.S. population in 2010, they accounted for 44% of new HIV infections (Centers for Disease Control and Prevention, 2012a). Heterosexual transmission of HIV infection, in

Address correspondence to Joan R. Cates, School of Journalism and Mass Communication, Campus Box 3365, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599, USA. joancates@unc.edu.

particular, is dramatically higher among Blacks than among Whites (Centers for Disease Control and Prevention, 2012b) and concurrent partnerships (sexual partnerships that overlap in time) are one sexual network pattern that may promote population dissemination of HIV among Blacks (Adimora et al., 2006). Compared with sequential monogamy with the same number of partnerships, concurrent partnerships can create a “connected population” (Morris & Kretzschmar, 1995, p. 300) through which HIV can spread much more readily (Morris & Kretzschmar, 1995, 1997; Watts & May, 1992). Black men are more likely to have concurrent partners than Black women (Adimora et al., 2004). The higher prevalence of partner’s concurrency (having a sexual relationship with someone who has another sex partner as well) may increase women’s exposure to HIV infection through sexual networks of their partners rather than through having many partners themselves (Adimora et al., 2003, 2004). Powerful social, demographic, and economic contextual forces support concurrent partnerships among Blacks (Adimora & Schoenbach, 2005; Adimora et al., 2013; Aral, Adimora, & Fenton, 2008). A low ratio of men to women, high incarceration rates that further exacerbate the low sex ratio and depress marriage rates, and pervasive poverty that discourages long-term monogamy may be contributing factors (Adimora et al., 2001, 2002, 2013; Adimora & Schoenbach, 2005). In addition, because concurrency is so prevalent, it may be viewed as normative in some Black communities that experience these social forces (Aral et al., 2008; Gorbach, Stoner, Aral, Whittington, & Holmes, 2002).

Mathematical modeling suggests that small decreases in concurrency could yield substantial decreases in HIV transmission (Morris, Kurth, Hamilton, Moody, & Wakefield, 2009), and targeting concurrency may be a cost-effective HIV prevention strategy (Enns, Brandeau, Igeme, & Bendavid, 2011). By contrast, behavioral interventions for heterosexual HIV prevention have thus far mainly focused on other risk behaviors, e.g., inconsistent condom use and limited HIV/STD testing (Noar, Palmgreen, Chabot, Dobransky, & Zimmerman, 2009).

Mass media campaigns can reach a larger segment of the population than most individual behavioral interventions (Cohen, Wu, & Farley, 2005; Noar, 2006). Radio has been shown to be a powerful channel for the delivery of narrative-style health messages (Pappas-DeLuca et al., 2008; Rogers et al., 1999; Vaughn et al., 2000). Several evaluations of entertainment-education radio soap operas show that narrative-style messages are particularly effective at encouraging listeners to talk to their partners about sexual health topics (Pappas-DeLuca et al., 2008; Rogers et al., 1999). Listeners are able to connect emotionally with characters in the narratives and often see themselves as one of the characters in the stories. Such engagement then leads to attitude and behavior change (Slater & Rouner, 2002).

Black radio—radio stations that target primarily Black audiences—is a trusted source of health information in Black communities, and is routinely used to communicate public health messages (Hall, 2010). According to Arbitron Black Radio Today 2013 (Arbitron, 2013), “About 92% of Black consumers aged 12 years and over listen to the radio each week at home, at work, in the car and in other locations. Regardless of age, time of day or location, radio is a reliable media companion of Black consumers.”

Formative research for systematic message development and design generally falls into two categories: (a) *preproduction*, where information about the health behavior, audience characteristics, potential messages and potential channels for the campaign are examined; and (b) *production*, where potential messages and channels are pre-tested with target audience members to assess their responses (Noar et al., 2009; Shafer, Cates, Diehl, & Hartmann, 2011).

Formative research processes for developing HIV prevention messages have been previously reported (Andrasik et al., 2012; Horner et al., 2008; Uhrig, Eroglu, Bann, Wasserman, & Guenther-Grey, 2010; Wright, Fortune, Juzang, & Bull, 2011). Most recently, Andrasik and colleagues outlined the development of a media campaign that directly targeted participation in sexual networks (Andrasik et al., 2012) and included extensive discussion of preproduction research. The resulting campaign in Seattle, Washington, incorporated themes of concurrency in the Black community. The campaign also addressed the lack of discussion about sexual topics, and the perception that HIV/AIDS was not a problem in the community. The current campaign adds to former research by using radio for the delivery of narrative-style health messages in voices similar to what might be heard in the local community.

This article reports systematic theory-based formative research to develop and pretest HIV prevention narrative messages targeting heterosexual, concurrent sexual partnerships among 18–34-year-old Blacks in the rural southeastern United States, a region where rates of sexually transmitted infections (STIs) are high. We describe here the process we used for developing and testing radio messages designed to raise awareness of and concern about the effect of concurrency on HIV transmission in the Black community. The results of the radio narrative intervention are currently undergoing analysis.

Method

From September 2010 to May 2012, we used a systematic approach (National Cancer Institute, 2002; Noar, 2006; Shafer et al., 2011) to design and test messages about reducing concurrent partnerships (see Figure 1). Our approach to the preproduction stage included collaboration with two interdisciplinary teams of students in a graduate level journalism and mass communication course that used health communication theories and methods to lay the creative groundwork for the message campaign. The student teams conducted a literature review of articles relating to HIV in Blacks, behavioral theories and message design, mass media campaigns, and persuasion. From this review, the teams developed preliminary message concepts for discussion in focus groups comprised of members of the targeted audience. For campaign production, we worked with Motivational Educational Entertainment Productions, a Philadelphia-based communications firm that specializes in developing culturally relevant messages for ethnic populations. The firm's Black moderators conducted the focus groups, finalized the scripts for the public service announcements, selected the actors, recorded their voices for the public service announcements, and selected and purchased the radio airtime.

We began the process by identifying our target audiences of Black men and women and the geographic area for the campaign. We next reviewed health behavior and persuasion theories and identified key concepts for draft messages based on these theories. We conducted focus groups to explore our target groups' beliefs and attitudes toward concurrency and to solicit feedback on sample messages. In an iterative process, we revised initial messages and themes according to the focus group feedback and included the messages in initial script concepts. Last, we conducted short intercept interviews with individuals to document reactions to the revised messages. Our research examined the determinants for participation in concurrency (e.g., what makes someone stay in or end a concurrent partnership), norms and attitudes concerning concurrency, and participants' reactions to message concepts associated with the campaign. The University of North Carolina's Institutional Review Board approved the study.

Target Audience and Setting

In North Carolina overall, Blacks accounted for 65% of all HIV cases diagnosed in 2012 (Communicable Disease Surveillance Unit, 2013). We selected six counties in rural eastern North Carolina with high percentages of Blacks and high rates of sexually transmitted infections, HIV transmission, and high concurrency rates (Adimora et al., 2004). The average 3-year HIV rates for these counties ranged from 20 to 46 cases per 100,000 per year, compared with the 2006 state average of 24.2 (Epidemiology and Special Studies Unit, HIV/STD Prevention and Care Branch, 2008). Four of the selected counties rank among the 10 highest HIV rates of all 100 North Carolina counties.

We defined the primary target audience as Black men and women, ages 18 to 34 years. We segmented the audience into subgroups by gender because studies show that women and men in general perceive concurrency differently (Carey, Scott-Sheldon, Senn, & Carey, 2013; Noar et al., 2012; Senn, Carey, Vanable, Urban, & Sliwinski, 2010; Senn, Scott-Sheldon, Seward, Wright, & Carey, 2011). Men often cite sexual dissatisfaction, including the need for multiple partners to fulfill different needs and the belief that it is natural for men to have multiple partners (Mark, Janssen, & Milhausen, 2011; Senn et al., 2011). In contrast, women express dissatisfaction with patterns of concurrency among men, but indicate that there is a general acceptance of partner's concurrency because of the desire to stay in the relationship (Nunn et al., 2012; Senn et al., 2011). In addition, women often cite relationship—rather than sexual factors—as motivations to engage in concurrent partnerships and express distrust or anger at their partner's concurrency (Mark et al., 2011; Nunn et al., 2012; Senn et al., 2011; Waldrop-Valverde et al., 2013)

Selection of Radio Stations

A community advisory board comprising 15 community stakeholders from the six-county area was assembled and asked to provide feedback on the content of sample radio ads and on dissemination strategy. Board members included a local Black radio station owner, a town council member, a county health department official, members of community-based organizations, and a minister.

We decided to air our messages on three radio stations with large listening audiences in our six-county target area. The three radio stations chosen for this study target predominantly young Black audiences, and each has a major presence in that 18–34 demographic in our target area. In addition, all three radio stations were among those most frequently mentioned by focus group participants when asked about their media use habits. Board members confirmed the reach and popularity of these radio stations among the target population.

Behavior Theories to Inform Messages

We developed an exploratory conceptual model for understanding Blacks' participation in concurrency (see Figure 2). Our approach is based on Fishbein's theory of reasoned action (Fishbein & Yzer, 2003), which holds that attitudes, norms, and self-efficacy are primary determinants of intention to perform a specific behavior—in this case, initiating or continuing a concurrent partnership or a sexual relationship with an individual who has a concurrent partner.

Our model also integrates social constructionist frameworks of gender and power (Connell, 1987; Whitehead, 1997; Wingood & DiClemente, 2000). Social constructionist frameworks argue that perceptions of masculinity are important background influences: masculinity includes sexual power, which in most societies is supported by economic and sociopolitical power. As applied to our model, low economic and political status may increase the need of men to sexually control women (Whitehead, 1997), and women may have limited control over their sexual relationships, including their partner's faithfulness and condom use (E. M. Murphy, Greene, Mihailovic, & Olupot-Olupot, 2006; Whyte, 2006).

The economic and political realities of life for many Blacks render the integration of social constructionist frameworks and Fishbein's model especially salient for understanding Blacks' sexual relationships, including concurrency. In our model the combined effects of background factors, such as social and economic context; demographic characteristics and culture, personality traits, and other individual-level variables, influence attitudes, perception of norms, and self-efficacy. An individual's belief that concurrency increases the spread of HIV may influence his or her attitudes about engaging in concurrent partnerships. In addition, beliefs about what others who are important to the individual think about that individual's participation in concurrent partnerships affect intention to engage in such partnerships.

Persuasion Theories to Inform Messages

In addition to using behavior theories to guide our approach, we drew on theories of persuasion in developing the messages. On the basis of a growing body of work that suggests that fictional narratives result in more health-related knowledge, attitudes, and behavioral intention change than use of more didactic nonfiction approaches (McQueen, Kreuter, Kalesan, & Alcaraz, 2011; S. T. Murphy, Frank, Chatterjee, & Baezconde-Garbanati, 2013), our primary messages were in narrative form. Behavioral models, even fictional ones, help address social norms as well as provide cues to self-efficacy in avoiding concurrent sexual partnerships (Green, 2006).

We also attempted to increase emotional response to the messages. Emotional appeals can play a central role in the processing of narratives (Green, 2006; McQueen et al., 2011; S. T. Murphy et al., 2013). The valance of emotions (positive vs. negative), as well as discrete emotions, e.g., anger or fear, can produce heightened response to a behavior change message. We were especially interested in the extent to which our messages might prompt actions, including (a) interpersonal communication, (b) information seeking, and (c) reduced participation in concurrency (Dillard & Nabi, 2006; S. T. Murphy et al., 2013; National Cancer Institute, 2002; Shaver, Schwartz, Kirson, & O'Connor, 1987).

Results

Development of Message Concepts

In the *preproduction* phase of the formative research, we developed preliminary messages based on psychological constructs suggested by our theoretical model and gender differences in concurrency. For men, the major communication objective was to address the risk from initiating or continuing concurrent relationships. For women, the major communication objective was to address the risk of participating in relationships where a sexual partner has another partner.

Focus Group Recruitment and Discussion Guide—Focus group discussions offer the opportunity to understand a range of behaviors and attitudes directly by hearing from the target audience (Noar, 2006). Through focus group discussions, message creators can also understand what people are thinking and feeling, and are then able to craft messages based on the depth of audience revelations. We conducted six focus groups, two in each of three of the target counties, to (a) identify factors that contribute to or protect against participation in concurrent partnerships and (b) test participants' responses to draft message concepts. Participants were recruited through the research team's network of contacts with community-based organizations that have access to Black adults ages 18–34 years within the target areas (see Table 1). Focus groups were stratified by gender and age range. Each group had about 8 participants, one trained moderator and an observer. The discussion guide addressed all constructs in our conceptual model, with a focus on determinants of behavioral intention (see Figure 2). Discussions lasted, on average, 90 min and were recorded and transcribed.

We analyzed focus group transcripts with thematic analysis techniques commonly used in applied public health research (Guest, MacQueen, & Namey, 2011). Two research team members reviewed the transcripts and, through an iterative process, identified a set of codes (Dey, 1993; MacQueen, McLellan, Kay, & Milstein, 1998; Ryan & Bernard, 2003; Strauss & Corbin, 2007). Transcripts were coded using ATLAS-ti.5, a computer program designed to assist in qualitative coding and analysis.

Focus Group Findings

The focus groups provided rich feedback about perceptions of factors contributing to and discouraging concurrency among rural Blacks.

Factors Contributing to Concurrency—Participants mentioned a number of social and environmental factors that promoted concurrency, most notably the low ratio of men to women in their community, low marriage rates, high male incarceration rates that exacerbate the low sex ratio, and pervasive poverty.

Both male and female focus group participants perceived concurrent sexual partnerships to be common and normalized in their communities. Men in the focus groups said that participating in concurrent partnerships allows them to (a) fulfill different (sexual and emotional) needs; and (b) avoid the hurt feelings that may come from a committed, monogamous relationship. As an indication of the normalization of concurrency, some of the men said that women are “understanding and accepting” of such behavior.

Women in the focus groups expressed dissatisfaction with patterns of concurrency among men in their communities but felt they had little control over this behavior. Some women, however, mentioned retaliating against their partner and regaining control by beginning their own concurrent partnership. Women also indicated a willingness to continue in relationships with a non-monogamous partner out of fear of dissolution of their relationship, especially given the perceived lack of available “good” men.

Both men and women acknowledged that having a child with a previous partner (co-parenting) presented opportunities and motivations for engaging in concurrent partnerships. Participants noted that a person might feel entitled to continue having sex with the mother/father of their child, even if the person is in a relationship with someone else.

Frequenting nightclubs coupled with substance (mainly alcohol) use was also seen as promoting concurrency.

Factors Protecting Against Concurrency—Influential factors for not engaging in concurrent sexual partnerships related to fear of contracting HIV or other STIs. Men in the younger focus group said they might be “scared of getting the monkey (AIDS),” especially if there were “rumors” about a particular woman having an STI. Men were also worried about “getting caught” and not wanting babies. One participant said he did not “wanna get that phone call, ‘We need to talk.’ ”

Women expressed having to face the reality of men having other relationships: “Who wants to deal with the fact of knowing that if they did that, they could have messed with somebody who could have full blown AIDS.”

Especially for women, the presence of children served as a motivation to end (or not start) a concurrent partnership. Women cited the desire to be a positive behavioral role model for their children. “Like if there are children they’re trying to stay there and make a good example for their kids that they’re together in a stable relationship.” One participant also suggested that exposure to concurrent relationships may be more harmful to children than to the adults involved.

Responses to Preliminary Message Concepts

Both men and women were hesitant to endorse messages they felt advocated for the dissolution of a relationship with someone who is nonmonogamous. As one participant indicated “you can’t tell a grown person how to live.” Participants suggested that messages with both descriptions of the risk related to concurrency and also encouragement for risk reduction measures such as condom use might be better received.

One campaign idea we suggested was the concept of “Real Men,” which would have used messages such as “Real men have only one partner” and “Real men use condoms.” These messages did not seem to resonate with the target audience. Although participants seemed to feel being a real man was important, they didn’t think that just having one partner is what made a person a real man.

Another concept we explored in the focus groups was “Don’t bet on your life. Get out of the game.” We chose to focus on a game of chance and the idea of betting or taking risks, as in a card game, gambling, or watching sports. Following focus group discussions with men, we crafted messages that included “winning” elements of a relationship, such as trust and loyalty.

A third preliminary theme focused on “sticking with one partner” and that, “Sex is so much better now that I’ve committed myself to one person. We take the time to experiment and learn what really turns each other on.” We intended to present a counterargument to the commonly held beliefs that multiple partners are necessary to fulfill different needs, and that having multiple partners is necessary for excitement, sexual pleasure, or self-confidence. This message received mixed reviews from focus group participants. They felt that it did not adequately describe why having one partner was important. They also felt that it ignored the idea that being faithful to one’s partner does not guarantee that one’s partner is being faithful in return.

Participants in the focus groups generally found it challenging to understand the term “sexual concurrency” but also indicated that the use of terms such as “jumping,” “cheating” or “multiple partners” captured a very narrow definition of concurrency and could be perceived as judgmental. As one participant explained: “cheating is when you’re in a committed relationship, but if you’re single, I don’t think it’s cheating to see different people.”

Radio Script Concepts

We used the feedback from the focus group discussions to draft campaign scripts using a narrative format. In the focus groups with young Blacks, we learned that many participants were accepting of concurrency, which is why this campaign was necessary to counter such beliefs. Because of the higher prevalence of concurrency among Black men compared with Black women, messages designed for men focused more on their own participation in concurrency, while messages designed for women focused more on their partner’s concurrency. In the story, both men and women were urged to avoid concurrent partnerships and end partnerships where their partner was not monogamous.

Messages geared toward men were focused on three specific actions that included points about risks related to concurrency and risk reduction measures: (a) end concurrent partnerships and do not begin new ones, (b) use condoms consistently with all partners, and (c) tell others about the risks related to concurrency and the benefits of ending concurrent partnerships. The messages also included references to obstacles identified in the focus group discussions: gender norms concerning men's sexual behavior, and risky behaviors that triggered initiation of casual partnerships (e.g., substance use, frequenting night clubs, and ongoing relationships with their children's mothers).

Messages developed for women also focused on three specific actions: (a) end partnerships when you are not your partner's only partner, (b) use condoms consistently with all partners—especially with partners who may have concurrent partners, (c) tell others about the risks related to concurrency and the benefits of ending concurrent partnerships. The messages also included references to specific obstacles that were identified in the analysis of formative data, namely: the potential emotional and financial consequences of ending a relationship, gender norms concerning men's behavior, and women's roles in sexual relationships.

In addition, we developed two sets of messages designed to motivate listeners to be a better role model for children. One set featured the voices of young girls who were dreaming of growing up to be a concurrent partner (e.g., a “cutty buddy” or “jump off”). A second set included the voices of young boys who were aspiring to be in a concurrent relationship and to be a “player.” The final lines in these messages for both men and women were “You don't want this for your children. They deserve more. Don't you?”

Intercept Interviews

For the production phase of the formative research, we recruited 42 Black men and women, aged 18–34 years, to participate in intercept interviews to evaluate the draft messages. To minimize priming our target audience for the upcoming radio campaign, we conducted the intercept interviews in a county outside our targeted area but similar in socioeconomic characteristics. Participants were recruited near a busy shopping center and taken to a private conference center at a nearby hotel. Participants were then assigned one of seven computers equipped with headphones and listened to six to seven draft messages and two taglines, which were recorded in a professional studio. The interviews lasted about 20 min.

The goal of the intercept interviews was to gauge the extent to which the messages would (a) be understandable, (b) be acceptable, (c) be relevant, (d) motivate the audience to talk with someone about reducing engagement in concurrent partnerships, and (e) motivate intentions to reduce engagement in concurrent partnerships. Questions within the intercept interviews focused on identifying individual reactions to the draft messages as well as behavioral intentions.

Interviews, consisting of a mix of open and close-ended questions, were administered using Qualtrics and analyzed using a mixed-methods approach. Responses to close-ended questions were assessed using descriptive statistics, as relevant. With the exception of one ad (“You don't always know”), men and women heard different ads.

Intercept Interviews Findings—Analysis of the intercept interviews indicated that men ($n = 17$) and women ($n = 24$) found the messages understandable, acceptable, and relevant, with more than half indicating that they felt motivated to reduce their own risk behavior and/or discuss concurrency with others.

The ad most liked by women ($n = 11$) was one featuring a phone call from a girlfriend warning the character about her boyfriend's concurrent partnerships. This ad also scored the highest in making the respondent feel happy ($n = 8$) or entertained ($n = 6$). The ad least liked by women ($n = 14$) was one with voices of little girls expressing their desire to one-day be a “cutty buddy” or “jump off” (casual sex partner, often a concurrent partner).

The ad most liked by men ($n = 10$) was one delivered by a man about the consequences of concurrency. This ad also scored the highest in making the respondent feel happy ($n = 4$) or entertained ($n = 7$). Men reacted most negatively to the ad staged in a barbershop where a male friend confronts his friend with the revelation he has an STD and has not told his primary girlfriend. Four men said they disliked the ad. This ad also elicited the most negative feelings of upset ($n = 4$) and anger ($n = 2$).

Final Messages and Campaign Schedule

Our message development process began with identifying key theoretical constructs and concluded with outcome variables and a set of radio messages (see Table 2). The final set of 11 ads (see Table 3) was chosen based on results from the intercept interviews and in consultation with the community advisory board. The campaign included a combination of traditional (didactic) public service announcements and a radio soap opera. Both intercept interview participants and board members perceived the combination of ads—traditional public service announcements and the storyline format—to be effective at eliciting a range of emotions and raising awareness about concurrent sexual partnerships. Neither the interview participants nor the community advisory board objected to the use of the story format so no major changes were made to the message format in the final production phase.

For the soap opera, six fictional Black characters were featured in the campaign (see Table 4). The characters appeared in both the narrative and non-narrative ads. The narrative storyline included the primary couple, Monique and Marcus, along with their friends Antonio, Derrick and Chanel. Marcus has other casual sexual partners, including DeeDee, while Monique continues to have sex with Jamal, her child's father. Antonio represents a negative influence in the men's lives, as he glorifies Marcus' outside relationships and minimizes his STI. Derrick and Chanel are exemplars, encouraging their friends to have open discussions about their concurrent partnerships and their consequences, such as the loss of their primary relationships and risk for acquiring HIV. The tag line was “Escape the web of sexual concurrency and stop the spread of STDs and HIV. Stick to one partner at a time.”

The radio campaign was designed to run for eight months. An initial three didactic public service announcements described concurrency behaviors and their link to HIV. After these ads had run for 1.5 months, a series of six ads in which a dramatic narrative unfolded ran for 2.5 months. While the introductory ads continued to air during the 8-month campaign, the storyline ads were programmed to air in three waves. The final two ads used children's

voices to illustrate the types of concurrency discussed in the focus groups. These ads ran for the second half of the campaign from the fourth month through the eighth month.

The ads aired on three prominent radio stations spanning the six-county intervention area. All three stations were classified as hip-hop/R&B format, with high reach among the young Black audiences. An average of almost 90 ads aired each week across the three stations (26–30 ads per week per station), with most ads scheduled to air mainly during prime drive time hours during the morning and afternoon programming. Thus the ads were scheduled during times when the stations reached the majority of their audiences.

Discussion

This is one of the few HIV prevention campaigns in the United States drawing attention to the strong link between concurrent sexual partnerships and HIV rates. A primary goal of this health communication campaign, *Escape the Web*, was to design culturally appropriate messages with input from our target audience and in their own words to discourage participation in concurrent partnerships. The focus group discussions with young Black men and women allowed us to make connections between theory and message design by providing more in depth understanding of attitudes, norms and intentions about sexual concurrency behaviors. Through intercept interviews with young adults in a community with similar demographic characteristics and HIV rates, we gained insight into how individuals similar to our target audience perceived the effectiveness of the messages.

The decision to use a narrative soap opera format to deliver the messages resonated with young adults and community members in this formative stage of research. Participants in our qualitative research phase of message development described real-world relationships and interactions with people who daily live with often-complex decisions about concurrency for themselves and for their friends and families. The efficacy of our narrative-based messages in changing attitudes and norms about concurrency will ultimately be determined through an evaluation of the campaign. However, a growing body of research suggests that narrative messages are more effective than didactic messages at conveying complex information (Green, 2006; Green, Brock, & Kaufman, 2004; McQueen et al., 2011; S. T. Murphy et al., 2013).

Lessons Learned

Formative research in health communication involves a systematic, purposeful, staged process. The value of this process is that we are able to learn and refine our messages after each stage. During the preproduction research stage, we used focus group discussions to understand the behavior (concurrent sexual partnerships) from the purview of the target audience. Success of the focus groups rested on participants' willingness to talk about a sensitive subject. Participants were forthcoming about the behavior in their community and suggested ways of addressing this behavior. Findings from the focus groups allowed us to link health behavior theory with message design by providing a more nuanced understanding of the attitudes, behavioral and normative beliefs, perceived social norms and self-efficacy as they relate to concurrent sexual partnerships. Findings further suggested possible ways to deliver the message (e.g., through a story).

During the production message testing stage, we conducted intercept interviews as a systematic way of learning whether the messages would motivate the target audience towards action on concurrent sexual partnerships. We also engaged with the community advisory board to get their opinions on the draft messages. Among the board members was a radio station owner on whose station some of the ads aired. With this campaign, we were able to target a large geographic area using radio. The evidence that the radio soap opera was effective in raising awareness about concurrent sexual partnerships will be assessed through campaign evaluation. Formative research, while not guaranteeing campaign success, increases the probability of achieving a successful campaign.

Strengths and Limitations

Some strengths of the study included reliance on the community advisory board to give early feedback on the campaign strategy. On the basis of their advice, we decided to take certain risks on the series content, for example, including what seemed to be children's voices talking about how they wanted to engage in concurrency when they grew up. Conducting the intercept interviews in another county helped to protect our immediate targeted audience from being primed about the upcoming radio series and from possibly being biased once the campaign evaluation began.

This study tailored its messages to a specific population in the rural Southeastern United States and to that area's manner of speech, so it may not directly translate to other areas. However, considering that qualitative studies on concurrency find similar normative behavior among different populations across the United States (Andrasik et al., 2012; Noar et al., 2012), we believe a media campaign such as this could be successful elsewhere.

Our campaign used radio as the only channel to better isolate and evaluate the effect of the medium. The messages developed for this campaign could be investigated with other communication channels, including social media. Additional research is needed to understand more fully any emotional reactions to these messages, especially as they relate to possible gender differences or differences based on concurrency practices.

Future research is also needed to determine whether messages aimed at those intending to end a concurrent partnership should be separated from messages aimed at those who have not begun such relationship patterns. This is similar to the approach taken by antismoking campaigns, which focus either on smoking initiation or on smoking cessation behaviors but not both (Siegel & Biener, 2000).

Conclusions

This study not only adds to our general understanding of the development of theory-based HIV prevention messages but also is valuable in designing public health campaigns to discourage concurrency and minimize its consequences among a population with high rates of HIV infection.

Acknowledgements

The authors thank Andre Brown and the students in the University of North Carolina at Chapel Hill's journalism and mass communication class for research assistance on the project and the Community Advisory Board for their wisdom and ongoing encouragement.

Funding

This research is supported by grants from the National Institute on Minority Health and Health Disparities (NIMHD), National Institute of Health (NIH; grant no. NIH1R01MD004065; Adimora, Adaora, PI) and The Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD), National Institutes of Health (NIH; grant no. 1K24HD059358; Adimora, Adaora, PI).

References

- Adimora AA, Schoenbach VJ. Social context, sexual networks, and racial disparities in rates of sexually transmitted infections. *Journal of Infectious Diseases*. 2005; 191(Suppl. 1):S115–S122. [PubMed: 15627221]
- Adimora AA, Schoenbach VJ, Bonas DM, Martinson FEA, Donaldson KH, Stancil TR. Concurrent sexual partnerships among women in the United States. *Epidemiology*. 2002; 13:320–327. [PubMed: 11964934]
- Adimora AA, Schoenbach VJ, Martinson FE, Coyne-Beasley T, Doherty I, Stancil TR, Fullilove RE. Heterosexually transmitted HIV infection among African Americans in North Carolina. *Journal of Acquired Immune Deficiency Syndromes*. 2006; 41:616–623. [PubMed: 16652036]
- Adimora AA, Schoenbach VJ, Martinson FEA, Donaldson KH, Fullilove RE, Aral SO. Social context of sexual relationships among rural African Americans. *Sexually Transmitted Diseases*. 2001; 28:69–76. [PubMed: 11234788]
- Adimora AA, Schoenbach VJ, Martinson FEA, Donaldson KH, Stancil TR, Fullilove RE. Concurrent partnerships among rural African Americans with recently reported heterosexually transmitted HIV infection. *Journal of Acquired Immune Deficiency Syndromes*. 2003; 34:423–429. [PubMed: 14615661]
- Adimora AA, Schoenbach VJ, Martinson F, Donaldson KH, Stancil TR, Fullilove RE. Concurrent sexual partnerships among African Americans in the rural south. *Annals of Epidemiology*. 2004; 14:155–160. [PubMed: 15036217]
- Adimora AA, Schoenbach VJ, Taylor EM, Khan MR, Schwartz RJ, Miller WC. Sex ratio, poverty, and concurrent partnerships among men and women in the United States: A multilevel analysis. *Annals of Epidemiology*. 2013; 23:716–719. [PubMed: 24099690]
- Andrasik MP, Chapman CH, Clad R, Murray K, Foster J, Morris M, Kurth AE. Developing concurrency messages for the Black community in Seattle, Washington. *AIDS Education & Prevention*. 2012; 24:527–548. [PubMed: 23206202]
- Aral SO, Adimora AA, Fenton KA. Understanding and responding to disparities in HIV and other sexually transmitted infections in African Americans. *The Lancet*. 2008; 372:337–340.
- Arbitron. Black Radio Today 2013. 2013. Retrieved from http://www.arbitron.com/downloads/Black_Radio_Today_2013_execsum.pdf
- Carey MP, Scott-Sheldon LA, Senn TE, Carey KB. Attitudes toward sexual partner concurrency: Development and evaluation of a brief, self-report measure for field research. *AIDS and Behavior*. 2013; 17:779–789. [PubMed: 23080361]
- Centers for Disease Control and Prevention. Estimated HIV incidence in the United States, 2007–2010. 2012a. HIV Surveillance Supplemental Report, 17. Retrieved from <http://www.cdc.gov/hiv/topics/surveillance/resources/reports/#supplemental>
- Centers for Disease Control and Prevention. Fact sheet: Estimates of new HIV infections in the United States. 2012b. Retrieved from <http://www.cdc.gov/nchhstp/newsroom/docs/2012/HIV-Infections-2007-2010.pdf>
- Cohen DA, Wu SY, Farley TA. Cost-effective allocation of government funds to prevent HIV infection. *Health Affairs*. 2005; 24:915–926. [PubMed: 16136633]

- Communicable Disease Surveillance Unit. North Carolina 2012 HIV/STD surveillance report. North Carolina Department of Health and Human Services; Raleigh: 2013. Retrieved from <http://epi.publichealth.nc.gov/cd/stds/figures/std12rpt.pdf>
- Connell, RW. Gender and power: Society, the person and sexual politics. Policy Press; Cambridge, England: 1987.
- Dey, I. Qualitative data analysis: A user-friendly guide. Routledge; New York, NY: 1993.
- Dillard JP, Nabi RL. The persuasive influence of emotion in cancer prevention and detection messages. *Journal of Communication*. 2006; 56:S123–S139.
- Enns EA, Brandeau ML, Igame TK, Bendavid E. Assessing effectiveness and cost-effectiveness of concurrency reduction for HIV prevention. *International Journal of STD & AIDS*. 2011; 22:558–567. [PubMed: 21998175]
- Epidemiology & Special Studies Unit. HIV/STD Prevention and Care Branch. 2007 HIV/STD surveillance report. North Carolina Division of Public Health; Raleigh: 2008. Retrieved from <http://epi.publichealth.nc.gov/cd/stds/figures/std07rpt.pdf>
- Fishbein M, Yzer MC. Using theory to design effective health behavior interventions. *Communication Theory*. 2003; 13:164–183.
- Gorbach PM, Stoner BP, Aral SO, Whittington WL, Holmes KK. “It takes a village”: Understanding concurrent sexual partnerships in Seattle, Washington. *Sexually Transmitted Diseases*. 2002; 29:453–462. [PubMed: 12172529]
- Green MC. Narratives and cancer communication. *Journal of Communication*. 2006; 56:S163–S183.
- Green MC, Brock TC, Kaufman GF. Understanding media enjoyment: The role of transportation into narrative worlds. *Communication Theory*. 2004; 14:311–327.
- Guest, G.; MacQueen, KM.; Namey, EE. Applied thematic analysis. Sage; Los Angeles, CA: 2011.
- Horner JR, Romer D, Venable PA, Salazar LF, Carey MP, Juzang I, Valois RF. Using culture-centered qualitative formative research to design broadcast messages for HIV prevention for African American adolescents. *Journal of Health Communication*. 2008; 13:309–325. [PubMed: 18569363]
- Hornik, RC. Public health communication: Evidence for behavior change. Erlbaum; Mahwah, NJ: 2002.
- MacQueen KM, McLellan E, Kay K, Milstein B. Code-book development for team-based qualitative analysis. *Cultural Anthropology Methods*. 1998; 10:31–36.
- Mark KP, Janssen E, Milhausen RR. Infidelity in heterosexual couples: Demographic, interpersonal, and personality-related predictors of extradyadic sex. *Archives of Sexual Behavior*. 2011; 40:971–982. [PubMed: 21667234]
- McQueen A, Kreuter MW, Kalesan B, Alcaraz KI. Understanding narrative effects: The impact of breast cancer survivor stories on message processing, attitudes, and beliefs among African American women. *Health Psychology*. 2011; 30:674–682. [PubMed: 21895370]
- Morris M, Kretzschmar M. Concurrent partnerships and transmission dynamics in networks. *Social Networks*. 1995; 17:299–318.
- Morris M, Kretzschmar M. Concurrent partnerships and the spread of HIV. *AIDS*. 1997; 11:641–648. [PubMed: 9108946]
- Morris M, Kurth AE, Hamilton DT, Moody J, Wakefield S. Concurrent partnerships and HIV prevalence disparities by race: Linking science and public health practice. *American Journal of Public Health*. 2009; 99:1023–1031. [PubMed: 19372508]
- Murphy EM, Greene ME, Mihailovic A, Olupot-Olupot P. Was the “ABC” approach (abstinence, being faithful, using condoms) responsible for Uganda’s decline in HIV? *PLoS Medicine*. 2006; 3:e379. [PubMed: 17002505]
- Murphy ST, Frank LB, Chatterjee JS, Baezconde-Garbanati L. Narrative versus nonnarrative: The role of identification, transportation, and emotion in reducing health disparities. *Journal of Communication*. 2013; 63:116–137.
- National Cancer Institute. Making health communication programs work: A planner’s guide (Pink Book), developing culturally appropriate communications. 2002. Retrieved from <http://www.cancer.gov/cancertopics/cancerlibrary/pinkbook>

- Noar SM. A 10-year retrospective of research in health mass media campaigns: Where do we go from here? *Journal of Health Communication*. 2006; 11:21–42. [PubMed: 16546917]
- Noar SM, Palmgreen P, Chabot M, Dobransky N, Zimmerman RS. A 10-Year systematic review of HIV/AIDS mass communication campaigns: Have we made progress? *Journal of Health Communication: International Perspectives*. 2009; 14:15–42.
- Noar SM, Webb E, Stee S, Feist-Price S, Crosby R, Willoughby J, Troutman A. Sexual partnerships, risk behaviors, and condom use among low-income heterosexual African Americans: A qualitative study. *Archives of Sexual Behavior*. 2012; 41:959–970. [PubMed: 22194089]
- Nunn A, Dickman S, Cornwall A, Kwakwa H, Mayer KH, Rana A, Rosengard C. Concurrent sexual partnerships among African American women in Philadelphia: Results from a qualitative study. *Sexual Health*. 2012; 9:288–296. [PubMed: 22697147]
- Shaver P, Schwartz J, Kirson D, O'Connor G. Emotion knowledge: Further exploration of a prototype approach. *Journal of Personality and Social Psychology*. 1987; 52:1061–1086.
- Ryan GW, Bernard HR. Techniques to identify themes. *Field Methods*. 2003; 15:85–109.
- Senn TE, Carey MP, Vanable PA, Urban MA, Sliwinski MJ. The male-to-female ratio and multiple sexual partners: Multilevel analysis with patients from an STD clinic. *AIDS and Behavior*. 2010; 14:942–948. [PubMed: 18483848]
- Senn TE, Scott-Sheldon LA, Seward DX, Wright EM, Carey MP. Sexual partner concurrency of urban male and female STD clinic patients: A qualitative study. *Archives of Sexual Behavior*. 2011; 40:775–784. [PubMed: 21052812]
- Shafer A, Cates JR, Diehl SJ, Hartmann M. Asking mom: Formative research for an HPV vaccine campaign targeting mothers of adolescent girls. *Journal of Health Communication*. 2011; 16:988–1005. [PubMed: 21728780]
- Siegel M, Biener L. The impact of an antismoking media campaign on progression to established smoking: Results of a longitudinal youth study. *American Journal of Public Health*. 2000; 90:380. [PubMed: 10705855]
- Strauss, A.; Corbin, J. *Basics of qualitative research: Techniques and procedures for developing grounded theory*. Sage; Los Angeles, CA: 2007.
- Uhrig J, Eroglu D, Bann C, Wasserman JL, Guenther-Grey C. Systematic formative research to develop HIV prevention messages for people living with HIV. *Social Marketing Quarterly*. 2010; 16:23–59.
- Waldrop-Valverde DG, Davis TL, Sales JM, Rose ES, Wingood GM, Diclemente RJ. Sexual concurrency among young African American women. *Psychology, Health & Medicine*. 2013; 18:676–686.
- Watts CH, May RM. The influence of concurrent partnerships on the dynamics of HIV/AIDS. *Mathematical Biosciences*. 1992; 108:89–104. [PubMed: 1551000]
- Whitehead TL. Urban low-income African American men, HIV/AIDS, and gender identity. *Medical Anthropology Quarterly*. 1997; 11:411–447. [PubMed: 9408898]
- Whyte J IV. Sexual assertiveness in low-income African American women: Unwanted sex, survival, and HIV risk. *Journal of Community Health Nursing*. 2006; 23:235–244. [PubMed: 17064233]
- Wingood GM, DiClemente RJ. Application of the theory of gender and power to examine HIV-related exposures, risk factors, and effective interventions for women. *Health Education & Behavior*. 2000; 27:539–565. [PubMed: 11009126]
- Wright E, Fortune T, Juzang I, Bull S. Text messaging for HIV prevention with young Black men: Formative research and campaign development. *AIDS Care*. 2011; 23:534–541. [PubMed: 21287416]

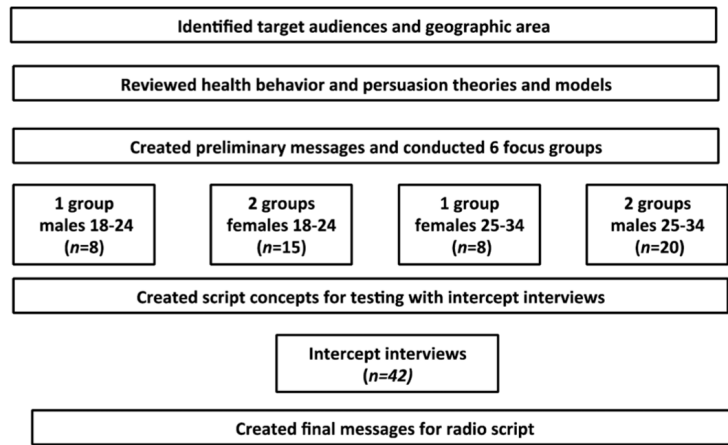


Fig. 1. Flow chart of methods for message development on reducing concurrency.

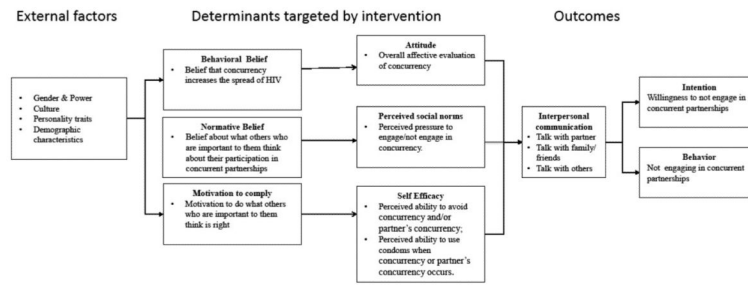


Fig. 2. Conceptual model for intervention to reduce sexual concurrency. Adapted from Fishbein & Yzer, 2003.

Table 1Characteristics of participants ($n = 51$) in the focus group discussions

	<i>n</i>	%
Age		
Gender		
Male	28	55
Female	23	45
Marital status		
Never married	37	76
Living with partner	7	14
Separated	3	6
Divorced	1	2
Widowed	1	2
Highest level of education		
Some high school	15	29
High school graduate/GED	17	33
Technical school or training	1	2
Some college	13	25
Completed college	5	10
Annual income		
Less than \$4,999	16	36
\$5000–\$19,999	15	34
\$20000–\$39,999	9	21
\$40,000 or more	4	9
Radio use (weekday)		
Early morning (6 am)	21	41
Mid-morning (10 am)	12	24
Afternoon (3 pm)	15	28
Evening (8 pm)	16	33
Radio use (weekend)		
Early morning (6 am)	10	20
Mid-morning (10 am)	6	12
Afternoon (3 pm)	20	41
Evening (8 pm)	25	51

Table 2

Message development process: From theoretical construct to final radio message

A. Construct (from conceptual model)	B. Outcome variable	C. Example of radio content
<i>Behavioral belief</i>		
(1) Belief that concurrency increases the spread of HIV.	<i>Men:</i> Take responsibility to protect loved ones <i>Women:</i> Take responsibility to protect yourself	<i>Men:</i> AIDS is a leading killer of Black people. That's not new information. But many brothers <i>are still in denial</i> . Some of us <i>still</i> pressure women to not use condoms knowing we got a chick on the side. <i>Women:</i> This creates a sexual web, one that can spread HIV and other diseases. You probably don't even know who's in your web, or how big it is. Too many people aren't being real about who they are doing it with.
<i>Normative belief</i>		
(2) Belief about what others who are important to them think about participation in concurrent partnerships	Avoid disapproval from others by not participating in concurrent partnerships	<i>Men:</i> Your partner may disapprove of this behavior <i>Women:</i> Your friends may disapprove of this behavior
<i>Motivation to comply</i>		
(3) Motivation to do what others who are important to them think is right.	Protect your partners from HIV by avoiding concurrent partnerships.	<i>Men:</i> If you (pause) or your partners have concurrent sex partners, then you are at risk for HIV. Some think it's in a man's nature to have a lot of women. Don't confuse being " <u>the</u> man" with being " <u>a</u> man." <i>Women:</i> Having multiple partners is not worth the risk; it puts all your loved ones at risk. Multiple partners increase STD, HIV, risk for yourself, others, and your main partner.
<i>Attitudes about concurrency</i>		
(4) Overall feeling about concurrency	Stop the spread of STDs and HIV by not having concurrent partners.	Escape the web of sexual concurrency and stop the spread of STDs and HIV. Stick to one partner at a time. <i>Men:</i> The odds of getting HIV are higher than you think if you are juggling women. Sleeping around increases your risk of getting HIV, and it increases the risk of the women you are with. <i>Women:</i> It's hard to find a good man out there, but that doesn't mean I have to settle. If a man cheats on me, he doesn't respect me and he doesn't deserve me. I am worth more than that.
<i>Perceived social norms</i>		
(5) Perceived pressure to engage or not engage in concurrency	Realize that not everybody is engaging in concurrency.	<i>Both men and women:</i> Escape the web: you don't always know.
<i>Self efficacy</i>		
(6a) Perceived ability to avoid concurrent partnerships (6b) Perceived ability to use condoms when concurrency occurs	Protect yourself and the health of the people you care about by having only one partner and using a condom.	<i>Both men and women:</i> We've got to start talking about concurrency. Because silence—and not knowing—is putting our whole community at risk.

Table 3

Description of public service announcements in “Escape the Web” radio campaign

Name of ad	Theme
Defining Concurency	Description of direct and partner concurency and their effects.
Defining for the Brothers	Reversing the myth that it’s in a man’s nature to engage in sexual relationships with multiple women at the same time.
Breaking It Down	Illustration of concurrent sexual partnerships, with focus on encouraging the community to start talking about concurency.
Escape The Web #1: My Name Is	Individual characters describe their sexual behaviors that make up concurency.
Escape The Web #2: “You Don’t Always Know ...”	Marcus makes plans to meet with his other sexual partner, DeeDee, after his girlfriend Monique rebuffs his request for time together. He then lies to Monique about who he will be with later.
Escape The Web #3: Phone Message	Chanel encourages Monique to use a condom whenever she and Marcus have sex, regardless of how much trust there is between the couple.
Escape The Web #5: “The Barbershop II: Dirty Deeds”	Marcus tells his friends Antonio and Derrick that he has an STI, possibly from one of his other side girlfriends. Derrick tells him that he must talk to Monique about the STI so that she can get tested.
Escape The Web #6: “Girl Talk I: Facebook Tramp”	Monique tells Chanel that she had sex with another partner (her son’s father) after finding out that Marcus had been having sex with DeeDee.
Escape The Web #7: Girl Talk 2: Relationships	Chanel counsels Monique to get an HIV test and to use condoms every time she and Marcus have sex.
Little Girls Ad	Young girls describing a future where they are the “other woman.”
Little Boys Ad	Young boys dream of wanting to have multiple sexual partners like their father.

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 4

List of characters in the radio campaign

Name	Description
Marcus	Marcus has a girlfriend but when she is unable to be with him, he calls on a number of other women to fulfill his sexual needs.
Monique	Monique is Marcus' girlfriend. She is also having sex with the father of her child.
Antonio	Antonio likes to have fun. He is not tied down in just one relationship. He has 3 women that he sees regularly—and stays on the lookout for more women.
DeeDee	DeeDee is having sex with her ex, Marcus. But she also has a couple of friends who meet her sexual needs when he cannot.
Derrick	Derrick is friends with Antonio and Marcus. He encourages Marcus to always have open communication with Monique about his other sexual partnerships as well as his STI.
Chanel	Chanel is Monique's best friend who encourages her to get tested for HIV/STIs and to use condoms.

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript