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STRAIGHT TALK: HIV PREVENTION FOR AFRICAN-AMERICAN HETEROSEXUAL MEN: THEORETICAL BASES AND INTERVENTION DESIGN

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In the United States, racial disparities in HIV/AIDS are stark. Although African Americans comprise an estimated 14% of the U.S. population, they made up 52% of new HIV cases among adults and adolescents diagnosed in 2009. Heterosexual transmission is now the second leading cause of HIV in the United States. African Americans made up a full two-thirds of all heterosexually acquired HIV/AIDS cases between 2005 and 2008. Few demonstrated efficacious HIV prevention interventions designed specifically for adult, African-American heterosexual men exist. Here, we describe the process used to design a theory-based HIV prevention intervention to increase condom use, reduce concurrent partnering, and increase HIV testing among heterosexually active African-American men living in high HIV prevalence areas of New York City. The intervention integrated empowerment, social identity, and rational choices theories and focused on four major content areas: HIV/AIDS testing and education; condom skills training; key relational and behavioral turning points; and masculinity and fatherhood.

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In the United States (US), racial disparities in HIV/AIDS are stark and growing. Although African Americans comprise an estimated 14% of the US population (Humes, Jones, & Ramirez, 2011), they comprised 52% of new HIV cases among adults and adolescents diagnosed in 2009 (Centers for Disease Control and Prevention, 2011). African Americans made up a full two-thirds of all heterosexually acquired HIV/AIDS cases between 2005 and 2008 (Centers for Disease Control and Prevention, 2011). Among African-American men nationally, the number of new heterosexually acquired HIV cases diagnosed in 2009 was over twice as many as those attributed to injection drug use (IDU) and about a third of the number attributed to sexual contact with men (Centers for Disease Control and Prevention, 2011). New York City (NYC) is the metropolitan area with the largest number of HIV/AIDS cases in the US and the largest number of AIDS cases among African-American men (Centers for Disease Control and Prevention, 2011). In NYC, heterosexually acquired HIV/AIDS made up 24% of new diagnoses in 2009, with 29% of these cases occurring in males (New York City Department of Health and Mental Hygiene, 2009). African-American men living in NYC, who comprise an estimated 22.2% of the city's population (New York City Department of City Planning. Population Division, 2011), made up 51% of heterosexually acquired HIV/AIDS among NYC men (New York City Department of Health and Mental Hygiene, 2011). Within NYC, heterosexually transmitted HIV is geographically concentrated in poor, inner-city, and racial/ethnic minority neighborhoods. Central Harlem in Manhattan and several neighborhoods in the South Bronx, predominately African-American and Latino/a areas, had the greatest number of heterosexual residents with HIV/AIDS in 2009 (New York City Department of Health and Mental Hygiene, 2006).

Heterosexually active men have been called the "forgotten group" when it comes to HIV prevention (Exner, Gardos, Seal, & Ehrhardt, 1999; Higgins, Hoffman, & Dworkin, 2010; Seal, Exner, & Ehrhardt, 2003), with the bulk of interventions among heterosexuals focused on women or drug users or men seeking treatment for a sexually transmitted infection (STI) (Darbes, Crepaz, Lyles, Kennedy, & Rutherford, 2008; Elwy, Hart, Hawkes, & Petticrew, 2002; Exner et al., 1999; Johnson et al., 2009). Behavioral HIV prevention interventions have been shown to work. A recent meta-analysis of behavioral HIV prevention interventions for male and female African Americans (including heterosexuals and MSM) reported that such interventions produced a significant increase in condom use up to six months, with marginal effects on STI infections (Johnson et al., 2009). Previously, a review of randomized clinical trials of HIV/STI risk reduction interventions among heterosexual African Americans further supported these results (Darbes et al., 2008). However, a close review of studies included in recent meta-analyses (Darbes et al., 2008; Johnson et al., 2009) reveals that of the interventions designed for and tested among African-American men only, all found short-term effects (less than 3 or 6 months) (Kalichman & Cherry, 1999; Kalichman, Cherry, & Browne-Sperling, 1999; O'Donnell, O'Donnell, San, Duran, & Labes, 1998; O'Donnell, San, Duran, & O'Donnell, 1995). Two other interventions included in these meta-analyses were for adolescents, one for veterans in drug treatment; most of the studies involved recruitment of men from STI clinics, and only two were conducted since the year 2000. One successful study, designed for African-American and Latino men, found effects up to 17 months (O'Donnell et al., 1998). Another STI clinic-based intervention designed for young African-American men resulted in fewer incident STIs and sexual partners, and more condom use in the 6 months post-intervention (Crosby, Diclemente, Charnigo, Snow, & Troutman, 2009). There are few interventions with

demonstrated efficacy that are focusing on African-American heterosexual men not seeking STI treatment.

Developing novel HIV prevention strategies for the African-American community and decreasing racial disparities in HIV prevalence are crucial national goals (The White House, 2010). The most recent research recommends that interventions must be culturally tailored or congruent (Darbes et al., 2008; Johnson et al., 2009) and should focus on the sexual network drivers of HIV spread, such as partner concurrency, defined as sexual relationships with two or more different people within the same or overlapping period, which is more prevalent among African Americans (Adimora & Schoenbach, 2005; Adimora, Schoenbach, & Floris-Moore, 2009; Black AIDS Institute, 2011; Doherty, Schoenbach, & Adimora, 2009; Morris, Zavisca, & Dean, 1995). Elevated levels of partner concurrency in the African-American community are posited to be the result of low sex ratios and persistent relationship disruption (Pouget, Kershaw, Niccolai, Ickovics, & Blankenship, 2010) as a result of socio-structural factors, specifically high levels of concentrated poverty, and sociohistorical events, such as mass incarceration (Adimora et al., 2009). Incarceration also has a negative impact on African-American men's socioeconomic status and potential earnings, with individual-level socioeconomic status in turn associated with inconsistent condom use (Aidala et al., 2006; Epperson, el-Bassel, Chang, & Gilbert, 2010; Epperson, Khan, el-Bassel, Wu, & Gilbert, 2011). Other structured manifestations of institutionalized racism (e.g., mortgage redlining), other forms of discrimination, drug sentencing policies, poorly resourced educational systems, and systematic inequities in home ownership opportunities (Massey & Denton, 1993; Williams, 1999; Williams, Neighbors, & Jackson, 2003) have been found associated with community violence, social disorganization (Wallace, 1990; Wallace & Wallace, 1990), and high HIV and other STI rates and sexual HIV risk behaviors (Cohen et al., 2000; Lindsey, & Selik, 2005; Peterman, Ramirez-Valles, Zimmerman, & Newcomb, 1998; Thomas et al., 1999). Using early US public assistance policy as an example, analysts have concluded that "man in the house" rules, which restricted aid to mothers and their children if the mother had a romantic or sexual relationship with a man not the father of her children, in combination with diminished employment opportunities for African-American men in the 1970s, discouraged marriage among African Americans (Neubeck & Casenave, 2001). In terms of housing policy, the post-war practice of not lending to African Americans also contributed to reduced wealth accumulation through home ownership (Apgar & Caldar, 2012); more recently, analysts have studied how discriminatory and predatory lending in African-American communities has further eroded home ownership and thus wealth in the Black community (Saegert, Fields, & Libman, 2011). Analysts emphasize the need to link intervention content to socio-structural factors, in addition to cultural ones, that contribute to health and health behaviors, with the theoretical bases of interventions elucidating the relationship between socio-structural factors and behavior (Beatty, Wheeler, & Gaiter, 2004).

Here, we describe the process by which we developed an innovative and culturally congruent HIV prevention intervention to increase condom use and HIV testing and decrease partner concurrency and among adult African-American heterosexual men living in high HIV prevalence areas of NYC. This pilot study was funded by a cooperative agreement by the Centers for Disease Control and Prevention (CDC) to develop and pilot a behavioral HIV prevention intervention focusing on heterosexual African-American men. We also outline the theoretical bases, empirical foundations, formative research, and intervention development process. We describe in

detail the components of the resultant four-session (2 hours per session) group behavioral intervention, illustrating how the formative research informed the sessions' contents and structure, as well as lessons learned from the pilot study.

OVERVIEW OF THE STRAIGHT TALK INTERVENTION DESIGN PROCESS

The intervention design process began with a literature review and epidemiological analyses that characterized the target population and identified focal behavioral outcomes, and the formative research that informed content and structure of the intervention. Our review of the literature suggested that consistent and correct condom use (Holmes, Levine, & Weaver, 2004; Weller, 1993; Weller & Davis, 2002), concurrent sexual partnering (Gorbach & Holmes, 2003; Kelley, Borawski, Flocke, & Keen, 2003; Kraut-Becher & Aral, 2003; Morris et al., 1995) and HIV status knowledge (Brenner et al., 2007; Holtgrave & Pinkerton, 2007; Marks, Crepaz, Senterfitt, & Janssen, 2005) were the critical behavioral drivers of the heterosexual HIV epidemic in NYC. Surveillance data (Jenness et al., 2011; Neaigus, Jenness, Hagan, Murrill, & Wendel, 2009) further suggested that focusing the intervention on men living in high HIV prevalence areas would offer the best potential to interrupt the sexual network–based transmission that characterizes the geographically concentrated HIV epidemic among heterosexuals in NYC. The focus would be reflected both in terms of where we recruited men for the study and the content of the intervention itself (e.g., the role of sexual networks in the heterosexual HIV epidemic). Once the focal behavioral outcomes were determined, we returned to the basic quantitative and qualitative research literature, identifying relations among personal and socio-structural factors and the behavior change outcomes. This process also informed the substantive focus of the formative research, that is, the computer-based, structured surveys, focus groups, and individual in-depth interviews (Bond et al., 2010).

The formative research tested the academic knowledge gained through the literature review against original qualitative and quantitative data collected for the study, and informed the theoretical specification, intervention content, modalities, and approach. The formative research consisted of brief, computer-based, structured surveys (n = 60), five focus groups (n = 34), and in-depth interviews (n = 30); nine men participated in both a focus group and an in-depth interview. Heterosexually active men, aged 18 to 45, who lived in two high HIV prevalence neighborhoods in New York City (Harlem and the South Bronx) and self-identified as African American or black, were enrolled at a research site in the South Bronx. Both higher-risk (self-reported unprotected vaginal and/or anal intercourse (UVAI) with two or more female partners in the past 3 months) and lower-risk (self-reported UVAI with only one female partner or 100% protected vaginal/anal intercourse with no more than two female partners in the past 3 months) men were enrolled in the formative research study. Guided by social cognitive theory (Bandura, 2001), the formative research explored how characteristics, interrelationships, and reciprocal, interactive processes across three domains—personal, behavioral, and socio-structural—influenced the focal outcomes (i.e., condom use, concurrent partnering and HIV testing) and whether interrelationships among domains and outcomes varied by risk level. The results of the analysis (described in more detail below) suggested the application of additional theoretical perspectives to the data, such as empowerment (Carli,

1999; Perkins & Zimmerman, 1995; Rappaport, 1984; Zimmerman, 1995), social identity (Tajfel & Turner, 1979, 1986; Turner, 1982), and rational choice theories (Hechter & Kanazawa, 1997; McCarthy, 2002), adding to the analytic lens that social cognitive theory offered.

Summative analytic matrices were developed that linked current sexual behaviors with the socio-structural and personal factors that constrained or facilitated behavior. The matrices included an indicator of heterogeneity across men and linkage, which allowed us to identify points of intervention and target intervention approaches. The intervention was designed as a series of modules that addressed the focal content areas and relationships identified through the matrices. Module development was informed as well by Bloom's taxonomy (Bloom, 1956) that requires increasingly demanding cognitive processing, through knowledge acquisition, application, analysis, evaluation, and synthesis. The modules were edited by the intervention development team, which consisted of the study investigators (VF and SB), project director (KB), and a key study interviewer and group facilitator (MC), at each stage of development. The modules were component-tested with 6 men, and sessions were observed by study staff. After each session, a feedback interview with participants was conducted by study staff ("observers") who observed the session; based on the feedback from the facilitators, observers, and the post-session feedback interviews, the modules were once again edited. Finally, the modules were organized into 4 sessions and tested in a full pre-pilot with 8 men; final changes were made (again based on feedback from facilitators and observers), and an uncontrolled pilot was conducted with 47 men, with pre- and post-intervention (3 months) assessments. Throughout the formative research and intervention development process, a panel of HIV prevention experts—individuals who daily engaged in street-based HIV prevention outreach, education, and testing and counseling—were consulted. This group periodically reviewed formative research results and the intervention modules under development by the intervention development team and offered feedback, advice, and voiced concerns.

IMPACT OF FORMATIVE RESEARCH ON INTERVENTION CONTENT

Results of the formative research have been described in detail elsewhere (Bond et al., 2010); here, we briefly summarize these results in order to illustrate how they informed intervention goals, content, and approaches. The men in the sample were generally low socioeconomic status, two-thirds reported income of less than $10,000 per year, and a third had less than a high school education; the average age was 33 (SD = 5.9) and 85% had a lifetime history of incarceration. The formative research confirmed some aspects of our understanding of the focal outcomes, based on extant empirical literature, specifically the potential impact of change in condom use skills, condom use self-efficacy, sexual communication around condom use, negative outcome expectancies, and other barriers to condom use on behavior (Crepaz et al., 2007; Darbes et al., 2008; Elwy et al., 2002; Johnson et al., 2009; Johnson, Scott-Sheldon, Huedo-Medina, & Carey, 2011). In terms of condom use, the men interviewed articulated how outcome expectancies, attitudes, and barriers to condom use, as well as concerns around pleasure and erection maintenance, negatively affected condom use. However, novel insights were generated. Participants demonstrated considerable ambivalence towards condom use, and offered accounts of condom use being discouraged or discontinued by female partners, particularly by primary partners, as an indicator of commitment. Pregnancy protection, specifically

in relation to existing or anticipated children, emerged as a motivator of condom use behavior, although disease prevention emerged more strongly in this regard.

Concurrent partnering was revealed to be normative, with most men describing concurrency as ubiquitous among male family and friends networks. Concurrency was not seen as problematic unless it threatened a stable relationship; it was attributed to men's "nature" and sexual needs and was conceptualized as a practical way to satisfy a range of sexual desires. Few men articulated an understanding of the role of partner concurrency in HIV and other STI spread in sexual networks and/or the African-American community. In terms of HIV testing, despite high rates of lifetime testing as well as high rates of past year HIV testing (~80%) among study participants, misconceptions about crucial aspects of HIV testing (e.g., the window period) were pervasive. As well, some men provided accounts suggesting that negative HIV test results reinforced risky sexual behavior, such as not using condoms consistently or providing and requiring HIV test results prior to unprotected sex. Communication between the men and primary partners was minimal with some exceptions across all outcomes: condom use, concurrent partnering, and HIV testing and status. The formative research also provided insights into how socio-historical and socially structured experiences, such as incarceration, racial discrimination, and violence, affected sexual behavior and risk, as well as partner interdependency. In addition, the data revealed the crucial role of identity-related experiences and processes, specifically around fathering and fatherhood, which constituted opportunities to push back against structured oppression and to create more agentic and pro-social roles, behaviors, and/or spaces as African-American men.

IMPACT OF FORMATIVE RESEARCH ON INTERVENTION MODALITY AND VEHICLE

Previous research found that interventions with more sessions, longer time per session, higher session retention rates, inclusion of interpersonal skills training (i.e., condom use negotiation, HIV communication, etc.), and tailoring to the focal population had stronger intervention efficacy (Johnson et al., 2009). Adding to this existing knowledge base, the focus groups and interviews added crucial information, particularly on how to tailor the intervention to the population. They indicated that a safe forum for open and honest discussion of sexual behavior and HIV risk was crucial. In both the groups and the in-depth interviews, we solicited the participants' suggestions on group content, activities, setting, and tone. The men offered two critical insights. The first was that the participants overwhelmingly wanted group sessions to be led by African-American men who share their experiences and perspectives as men. The second was that the men wanted to learn more about HIV/AIDS in a way that was respectful and open, but not proscriptive or overly didactic. These two factors, in combination with the need for a significant focus on basic knowledge and skills development, resulted in a conscious decision not to use a nonsexual health-specific intervention vehicle or theme, such as exploring African culture, learning to cook healthy meals, or developing job skills, as a vehicle for the intervention. Rather, we decided to create group sessions that offered highly focused content, with an emphasis on straight-forward and respectful discussion, targeted learning, analyzing, imagining, planning, practicing, and enacting safer sexual health behaviors.

The intervention team considered how to ensure that the intervention developed was culturally congruent and relevant. The two primary strategies used to integrate culture in previous interventions are "presentation" strategies (e.g., facilitators

of the same ethnicity as participants, scripts with appropriate cultural terminology, appropriate cultural aesthetic in materials) and "content" strategies (e.g., information and themes specific to the group) (Wilson & Miller, 2003). Previous research groups have adapted African language and symbols for use in HIV risk reduction for African Americans, one among sero-discordant African-American couples (NIMH Multisite STD/HIV Prevention Trial for African American Couples Group, 2008) and the other with men who have sex with men and women (Williams, Ramamurthi, Manago, & Harawa, 2009). The results of the formative work confirmed our notions about the important connection between structured life events and conditions, such as incarceration, low levels of educational attainment and employment, and sexual behavior, and their impact on behavior, personal attitudes, and cultural norms. This suggested the need for an intervention tool to examine these impacts and to connect sexual health and behavior to the role of African-American men in the African-American community. A member of the panel of HIV prevention experts suggested that we integrate the anthology *Brotherman: The Odyssey of Black Men in America* (Boyd & Allen, 1996). We piloted select readings from the anthology as modules and found this a very successful method of opening up the discussion and connecting the work to the history and culture of African Americans in the US. Based on this experience, we integrated the readings into the final version of the intervention and provided a copy of the book to each participant at the end of the groups.

IMPACT OF FORMATIVE RESEARCH ON THEORETICAL BASES OF INTERVENTION

Overall, the formative work indicated that social cognitive theory provides a solid overarching theoretical framework for the intervention, with additional educational, psychological, and sociological theoretical approaches suggested as well by the results. Specifically, empowerment theory (Perkins & Zimmerman, 1995; Rappaport, 1984; Zimmerman, 1995), a strengths-based approach that explicitly connects individual abilities to collective advancement, was applied to guide modules on a major intervention goal: control of sexual health through critical analysis, collective education, and both individual and collective behavior change to change the risk environment of the African-American community. In addition, social identity theory (Fine, 1993; McCarthy, 2002) was added to frame intervention messages and modules around the reciprocal relationship between identity and behavior, the process by which identities are negotiated through social interaction, and the shared social meanings of behaviors (e.g., requesting condom use equals distrust, lack of monogamy, disease status) are consequential to feelings of personal and social identity (i.e., negative identity impacts and identity challenges) and relationship dynamics.

Finally, we integrated aspects of rational choice theory (Hechter & Kanazawa, 1997; McCarthy, 2002). The theory posits that behavioral intentions (and subsequent engagement in that behavior) are influenced by attitudes and by norms and behavioral control, which are in turn influenced by environmental factors. Thus, the theory complements our focus on social structures and systems and the inherent tension between self-determination or agency and structure that lies at the heart of the intervention. For each behavior change goal, these theories informed the intervention logic, connecting relevant social cognitive theoretical domains to the focal outcomes through specific intervention modules. Figure 1 illustrates the theories we applied to a specific focal outcome, condom use, via the module "Lucky at the Club," a module where knowledge about the need for condom use and motivational strategies is applied to a common scenario of friends out at a club. In this module, participants are

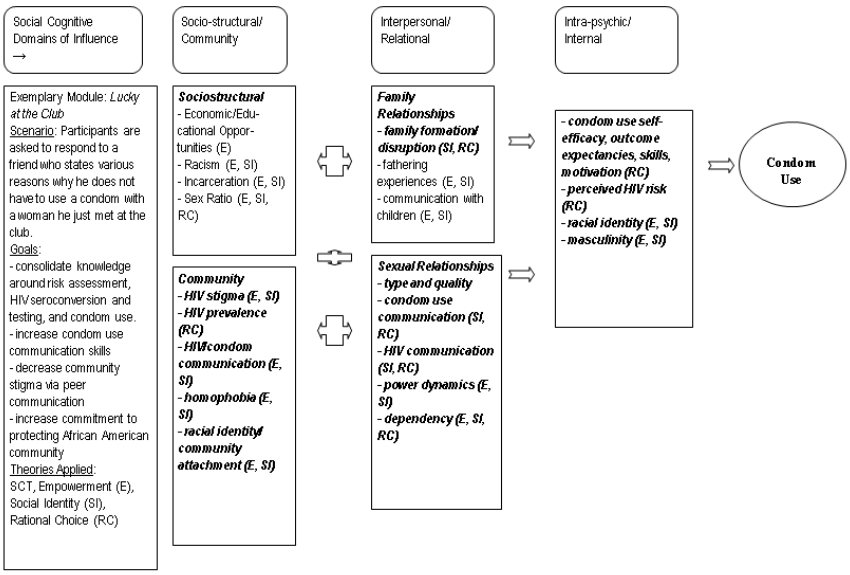

FIGURE 1. Conceptual Model Connecting Intervention Domains, Theoretical Bases and Behavioral Outcome (Condom Use)

asked to respond to a friend's rationalizations for not using a condom with a woman he just met at the club; responses reflected greater feelings of empowerment to manage their sexual health, stronger feelings of responsibility to prevent HIV from affecting the African-American community, more accurate knowledge of how HIV is transmitted, and the accuracy of assessing HIV acquisition risk through visual inspection, heightened desire to maintain financial independence through preventing unwanted pregnancies, increased feelings of efficacy to use condoms and communicate the need for condoms with women, and so forth. Each response reflected theoretically and empirically-informed intervention content. Figure 1 depicts how, within each level of the social cognitive theoretical framework, the additional theoretical foci are highlighted in bold and italics to indicate their application in this module.

THE RESULTANT INTERVENTION: STRAIGHT TALK FOR AFRICAN-AMERICAN MEN

The intervention that was developed adopted a tone that conveyed respect for the participants' ability to absorb new information that challenged community norms and that emphasized personal decision making without being proscriptive. The resultant intervention focused on four major content areas: HIV/AIDS education; condom application and skills training; key relational and behavioral turning points; and masculinity and fatherhood. Entitled "Straight Talk," the intervention offered a no-holds-barred presentation of the harsh realities of environmental risk and the consequences of personal behaviors in a safe, non-judgmental space. It sought to

provide African-American heterosexual men with the knowledge, skills, and opportunity to consider, practice, and adopt new practices to increase their well-being and promote sexual health. The intervention, consisting of four 2-hour sessions, was designed to be delivered in two sessions per week.

In the pilot study, all sessions were held in the evenings and were facilitated by three African-American men, working in the areas of health-related or HIV prevention, but who were not clinicians. Facilitators were trained and supervised by experienced behavioral interventionists using standard methods. The training was delivered in two stages. The first was the training for the component testing, which lasted 2 days and was delivered by the study investigators and project director. The second was the training for the pre-pilot of the intervention, which also lasted 2 days and was delivered by the study investigators and project director. Both trainings covered the following issues: study purpose, procedures, and goals; ethical conduct of research involving human subjects; information and discussion of the focal issues (HIV/AIDS prevalence, risk factors for acquisition and transmission, known efficacious interventions, HIV testing, social issues facing African-American men, etc.); formative research phase results; theoretical rationale for the intervention content and approach; group dynamics; session logic and module content; practice and feedback on module delivery; and safety, harm to self or others, and other mental, social, or physical health concerns. Supervision consisted of review of the digital tape recordings of all sessions by the research team for intervention fidelity, group dynamics issues, and assessment of feasibility and acceptability. Weekly supervision meetings were conducted to provide feedback on the sessions by the primary tape reviewer (SB) and discuss group dynamics and other concerns with the study investigators and team members. Table 1 summarizes the session modules, content, and main messages/module purpose. Each module was described in detail in an intervention manual, employed by the facilitators to ensure consistent and uniform delivery of intervention content across all cohorts. Below, we briefly describe the sessions as delivered in our pilot of the intervention with 47 men.

SESSION 1: HIV/AIDS FACTS

This first session lays out the foundational information that participants will process in greater detail in the succeeding sessions. After establishing group rules, participants use pushpins on a subway map of New York City to indicate the neighborhood they live in and the neighborhoods where their sexual partners live. The facilitators then present five maps that illustrate HIV prevalence, incidence, and mortality rates in Harlem and the South Bronx, neighborhoods with the highest rates in New York City. This "icebreaker" raises awareness of the high HIV prevalence and mortality in Harlem and the South Bronx, as compared with other neighborhoods, as well as offers the beginning of a critical examination of how structured neighborhood characteristics potentially relate to the distribution of HIV/AIDS. Next, participants complete personalized risk assessments, with the scoring occurring later in the session. Facilitators then deliver information on HIV transmission, testing, risk, and prevention followed by a Jeopardy-style game, organized around four themes: HIV/AIDS basics, HIV testing/window period, HIV risk, and HIV prevention, to reinforce learning of this foundational information. Session 1 also includes modules in which participants describe sexual activities and areas they enjoy, as well as risks associated with each. At the end of the session, information on a range of community resources related to HIV/AIDS and general health and well-being is provided in writing to participants.

TABLE 1. Intervention Sessions and Modules, Description of Content, and Main Messages

Module	Title	Content	Minutes	Main Message/Module Purpose
Session #1				
M1	Welcome/Rules	General introduction	2	Establish rules, safety, structure, roles
M2	Ice Breaker	HIV prevalence/maps	15	Raise awareness, heighten sense of risk, provide factual information
M3	Personal Risk Assessment	Complete worksheet establishing risk level	10	Begin risk assessment process
M4	HIV/AIDS Facts	Didactic information on HIV/AIDS	20	Provide factual information
M5	HIV/AIDS Jeopardy Game	Game to test knowledge	20	Consolidate knowledge
M6	Break		10	
M7	Full project introduction; Score risk assessment sheet	Orient to purpose of group; Self-assess risk level	8	You are at risk; this group is about African- American/Black men reducing risk
M8	Sexual Activities	Generates preferred sexual activities and names for types of partners (casual/steady/main)	10	Generate information for sexual risk matrix
M9	Sexual Risk Matrix	Identifies risk as points of contact between risky fluids and risky paces	20	Provide factual information on what constitutes risk
M10	Poem	George Edward Tait poem	3	Orient group to identity component of intervention
M11	Community Resources	Distribute information on STIs/HIV/AIDS and testing centers	2	Provide information of community resources for STI/HIV prevention and testing
Session #2				
M1	Welcome/Rules	Introduction	2	Continue to establish rules, safety, structure, roles
M2	What's Her Status	Interactive activity to demonstrate variability in status assessment/unreliability of the method as risk reduction	10	Visual cues are important to navigating life, but are unreliable in sexual risk assessment, because men judge the same women differently, leading to risk
M3	Partner Game	Game to illustrate spread of HIV/STIs through sexual network	20	Sexual network facilitates spread of HIV; high prevalence is due to tight networks in circumscribed areas (link to maps/dots)
M4	Condom Demo	Facts about condoms and instruction on correct usage	25	Practice condom use to mastery; introduce female condom, review anatomy
M5	Pros and Cons of Condom Use	Establish content of decisional balance for using condoms	10	Address decisional balance/ambivalence; establish credibility, tilt towards self-protection
M6	Break		10	
M7	Interactive role play where participants stop action and identify flaws in logic	Team-based game to test and apply knowledge and rationale for using condoms in one-night-stand situation	40	Apply knowledge in low defense activity; begin to identify as high risk, acknowledge need to lower risk
M9	Community Resources	Distribute information on free condom availability	2	Emphasize that condoms are available, free and easy to access
Session #3				
M1	Welcome/Rules	Introduction	2	Continue to establish rules, safety, structure, roles

M2	Ice Breaker	Important life events	2	Generate life events to link to timelines where events and contexts are linked to high risk periods
M3	Timelines	Individual activity connecting life events and conditions to risk behaviors	25	Sometimes periods of risky behavior are associated with other life events and social contexts; identifying those connections may provide inputs needed to achieve behavior change
M4	Strategies for Turning Points: when the condom comes off	Address turning points in sexual encounters/relationships when condoms come off	40	Identify when and why condoms come off and develop strategies to keep them on at critical points in a relationship. By using past experiences and imaginary new ones, develop personalized condom use maintenance approaches, linked to desired end states, such as no more children, freedom to have other relationships, low STI/HIV risk, etc.
M5	Break	Break	10	
M6	Poem	Black Women	5	Return to identity component of intervention; elicit empathy for African- American/Black women
M7	Steadies pose risk	Short quiz on how well you know your steady partner	10	Make point that we do not always know our steady partners as well as we think and that steadies can be risky
M8	Reducing risk with steadies	Strategies to reintroduce condoms into steady relationships	20	Assess possibility of reintroducing condoms first; develop ways to do so; explore alternatives
M9	HIV testing	Starting from the idea of HIV testing with a partner, discussion of testing experiences and plans for future tests	20	Provide factual information on HIV testing; how couples testing and counseling works; the window period is revisited
M11	Combined personalized risk plan	Worksheet with strategies by partner type	3	Review content of intervention
Session #4				
M1	Welcome/Rules	Introduction	2	Continue to establish rules, safety, structure, roles
M2	Icebreaker	Labels of African-American men	10	Acknowledge negative label; offer space to reject and embrace positive ones
M3	Life with Father/Life as Father	Fatherhood experiences and sexual/HIV communication with children/youth	25	Discuss how father taught/did not teach about sex; imagine conversations with children about sex, safety, life, future
M4	Break		10	
M5	Empowering Healthy Masculine Roles	Discussion about rights to sexual self-determination; practice communicating this to sexual partners	20	Reassert right to ideal roles as African American men that emphasize self and community safety and preservation
M6	Aspirations for the Future	Review of intervention content; plans for future changes in self and sexual behavior	30	How the intervention has inspired behavior change related to their personal behavior or how they interact with their community; concrete plans for change are reviewed
M7	Collage of Masculinity	Create portrait collage of African American man	20	You can make yourself and your community what you want it to be, through purposeful, informed behaviors, alone, with your sexual partners and as African American men collectively
M8	Farewell	Saying goodbye	3	This is the first step; take it back to the people

SESSION 2: CONDOMS AND BARRIERS TO CONDOM USE

Session 2 continues to lay down foundational information and begins to generate strategies for increasing condom use. The session begins with an exercise in which participants are presented with a poster showing photographs of six women captioned by their professions. Participants are asked to guess the women's HIV serostatus, followed by a discussion to underline the information presented in the previous session regarding how visual and other cues to partners' serostatus are not reliable, as one man judges—and subsequently behaves—differently from the next. As such, the exercise is designed not to argue against the normative process of using visual cues to assess an individual, but rather to emphasize the method's lack of reliability. Next, participants engage in an exercise that demonstrates how multiple and concurrent partnering without condoms increases HIV prevalence within communities, which relates back to the previous session's maps identifying the high prevalence of HIV in their communities. The module takes the form of a "hook-up game," in which colored stickers are used to illustrate how HIV prevalence in a sexual network increases under various sexual partnering patterns. Content delivery then returns to foundational information in the next module with a skills-building exercise on applying male and female condoms, which includes information and strategies to overcome barriers to condom use (e.g., lack of sensation, breaking the mood, difficulty maintaining erections, and concerns about effectiveness). Next, relationship issues are introduced that are later developed into exercises leading to strategies for achieving condom use with all partners (i.e., what researchers call casual partners, steady partners, and main partners), emphasizing the full range of partner types that the men described in the formative research, including casual relationships (e.g., "jump offs," "side chicks," etc.) and more complex relationships (e.g., "baby mamas"), the fluid boundaries that exist among partner types. Relationship issues are introduced by having participants describe the context or other experiences that played into contextualized sexual encounters that were either risky or evolved into relationships without condom use. Next is an exercise that develops strategies for dealing with those relationships in which men find few difficulties with condoms, casual relationships (e.g., "one-night stands" or "jump offs"). First, the exercise addresses the issue of decisional balance, asking participants to develop a list of pros and cons of condom use. Next, a role-play exercise is used to help participants apply the information and strategies from previous sessions in a scenario ("Lucky at the Club"). The exercise requires the men to recall and apply the knowledge they have gained in a way that raises little defensiveness. At the end of the session, information was provided to participants in writing on where (in the Bronx and Harlem) to find free condoms and other infection and pregnancy prevention approaches.

SESSION 3: TURNING POINTS

The last two sessions move away from the more didactic focus of previous sessions to address the more complex issues that emerged, from both the literature review and our formative research, as key obstacles to behavior change: significant and meaningful relationships with women and masculine identity. The third session explores in more detail the socio-structural and personal factors that were at play when participants either moved away from condom use with partners as the relationship shifted and/or changed or as external factors exerted an affect. The session attempts to offer strategies to prevent dropping condom use and to develop

strategies for reintroducing condoms or otherwise reduce risk in primary relationships (i.e., HIV testing of both partners, taking into account the window period, and monogamy). This session begins with an ice breaker in which participants describe one or two important events in their lives (e.g., birth of a child, graduation from school, death of a parent, incarceration), followed by an exercise in which participants construct timelines that trace periods of time when they engaged in casual sexual encounters or sex with steadier partners, when children were born, and other important life events (e.g., secured housing, gained good employment, completed an educational program, engaged in military service, etc.). They graphically indicate the turning points when in the course of a sexual relationship they stopped wearing condoms, and they highlight periods during which they were having unprotected sex with multiple partners. Here, connections are made between life context, life events and sexual behavior. Next, they develop communication strategies to ensure that when they experience these turning points in the future they have the resources to continue protecting themselves and their partners from HIV infection instead of putting themselves and their partners at risk. They then characterize relationships where there is a possibility of reintroducing condoms and develop communication strategies toward that end. Each participant has an opportunity to personalize communication strategies. After the reading of a poem about women from the *Brotherman* book, the intervention turns to primary partnerships with women who are wives or like wives. These are the most challenging relationships for reintroducing condoms, but they may also be very risky, which is a central discussion point of the last half of the session. The remainder of this session develops strategies to reduce HIV risk with primary partners, including couples testing and counseling, open and honest communication, and monogamy. The session includes a brief module on HIV testing, as it is at this point in the intervention that the men are considering another HIV test. At the end of the session, information on how and where to get free HIV tests is provided in writing to participants.

SESSION 4: FATHERHOOD AND MASCULINITY

This is the second session to move beyond the foundational information required for HIV risk reduction. It begins with an ice breaker that orients the men to the underlying theoretical concept that is central to the session: social identity as African-American men. The men are asked to generate labels that society uses for black men, with negative labels being crossed out, as the session shifts the orientation to purposeful and conscious expression of desired and healthy roles as African-American men. Next, participants read a short passage by Na'im Akbar entitled "Fatherhood and Forgiveness" (Akbar, 2005) which addresses the notion that African-American men can play only limited roles (e.g., thugs, sexual supermen, hustlers). Participants explore their own experiences with their fathers or father figures and their own experiences as fathers. The connection between the foundational content and these identity-related motivators for behavior change is crystallized in imagined conversations with their children in which they pass on the knowledge about HIV that was covered in the first session, along with concrete recommendations to stay free of HIV infection. Next, a module explores the possibility of the men asserting their right to take on roles that have been kept from them or that they have been structured out of, such as primary breadwinner, nurturer, leader, advisor, protector, and so forth. How further adopting these roles will connect to sexual health behavior is discussed.

In the last module, the content of the prior three sessions is reviewed, and a group collage of an African-American man, embodying these roles, is created using images from popular and non-mainstream African-American media.

PRELIMINARY FINDINGS: ACCEPTABILITY AND FEASIBILITY

The intervention was delivered to six cohorts of men (n = 47) in an uncontrolled pilot phase, and through this, we learned that the intervention is highly feasible and acceptable. Across all sessions, the retention rate was 95%. Digital tape recordings of all sessions were reviewed by the research team for intervention fidelity, group dynamics issues, and assessment of feasibility and acceptability. Sessions were discussed weekly with the facilitators, who received feedback on the sessions from the primary tape reviewer (SB). This process revealed that most men (according to facilitator accounts and the systematic tape review) were highly engaged and active during the intervention sessions. We believe that cultural congruency was achieved in this intervention, based on the overwhelmingly positive response that nearly all men had to the intervention facilitators and content. There was some variability from cohort to cohort both across and within groups on baseline HIV/AIDS knowledge, but no cohort was so knowledgeable that the participants did not need the bulk of the foundational information provided during the first two sessions. Resistance to the introduction of condoms into established relationships was anticipated and managed by facilitators, who consistently fostered an atmosphere that respected men's positions, but offered information, skills, and options for increasing safety. Many modules were deemed highly successful by facilitators and as assessed through the systematic tape review, particularly those that were interactive and fostered social interaction and communication among peers.

As the sessions moved into some of the socio-structural factors and systems that deeply affected the men's lives, as well as the masculine identity-related areas, negative emotions emerged, and past and on-going traumas were revealed. Again, we anticipated this possibility and had an emotional distress protocol in place for men who found the content emotionally overwhelming. Specifically, the discussions of fatherhood and lost opportunities challenged the facilitators to balance acknowledging past and current pain with thoughtful plans for the future. Although the use of the anthology introduced the emotional weight of what was to come, the final two sessions were challenging for some of the men. One cohort of participants had some difficulty with the concepts of empowerment and self-determination. This cohort appeared to "get stuck" on the negative labels used by society for African-American men, and some of them would not accept the possibility that they had the ability to embody different roles. Not all men in the cohort responded to the intervention content in this way, but there were a few who did, and the intervention development team found it noteworthy. Facilitators of this cohort responded with a message that was consistent with the overall tenor of the group as well as all previous sessions and cohorts: the groups are here to offer information and a space to consider sexual safety, personal behavior, the African-American community, and so forth, but it is ultimately up to the individual men to decide whether and how it will change their behaviors. The facilitators consistently referred back to the name of the intervention, "Straight Talk," reminding the men that it is not about telling them how to behave, "be a man," or "be black," but simply to provide the information and tools needed, if change is desired.

DISCUSSION

The Straight Talk intervention was designed specifically for African-American adult heterosexual men, a population that has not been adequately addressed in previous risk reduction intervention research. Although interventions have been developed for African-American sero-discordant couples, African-American and Latino men and men seeking treatment at STI clinics, and men of all races who inject drugs, we know of no published studies reporting interventions developed specifically for African-American men engaged in high-risk sexual activities and living in high prevalence areas who are not seeking STI treatment or partnered with an HIV-positive woman. Such men may be unaware of their vulnerability to HIV or may not be part of another system of care (e.g., for STIs, substance abuse, etc.). If found to be efficacious, the intervention developed will fill a gap in the behavioral intervention base for HIV prevention. The intervention developed is based on a significant and rigorous formative research process, including 30 in-depth qualitative interviews, five focus groups, 60 ACASI surveys, a component testing series, and a pre-pilot of the intervention. At each step in the research process, an experienced team of HIV prevention experts—HIV prevention specialists reflecting the target population and working in the focal neighborhoods on a day-to-day basis—consulted with the research team, offering meaningful and constructive feedback at each stage. The resultant intervention is deeply grounded in the sexual behavior, sexual partnering patterns, relationship and family dynamics, and socially structured life experiences of heterosexual African-American men.

The Straight Talk intervention reflects specifically what the men in the formative research indicated would be most welcome: a safe, African-American men-only space to give voice to and discuss with their peers their thoughts, feelings, and concerns—a forum almost completely absent from their day-to-day lives. By creating such a space, our goal was to open the door to the potential for sustained behavior change achieved through multiple theoretical and substantive intervention foci. By interweaving cognitively oriented theories with identity-based ones, the intervention integrates best practices based on empirical research, with novel insights generated by the men themselves. By acknowledging and explicitly analyzing the roles of racism, discrimination, education, employment, and incarceration in African-American men's lives, the intervention motivated engagement and achieved credibility as a socio-historically grounded program that recognizes the role that social structure plays in human sexual behavior.

The intervention as designed is highly practical, set in the community, and led by non-clinical staff. Most importantly, the Straight Talk intervention focuses tightly on changing the behaviors that are driving the HIV epidemic among African Americans: inconsistent condom use, partner concurrency, and unknown HIV status. Thus, while building on modules designed to increase condom use with primary and non-primary female partners, the intervention acts to interrupt the sexual partnering patterns, specifically partner concurrency. In addition to this unique focus on concurrency, the intervention connects social structures to sexual health outcomes by focusing on how men's roles (social identities) as fathers and men, economic realities, and life experiences facilitate partner concurrency. The Straight Talk intervention is a highly contextualized HIV prevention intervention that operates to change sexual behaviors that increase risk of HIV acquisition and transmission.

Despite these strengths, the Straight Talk intervention is potentially limited in several ways. It is a behavioral intervention, focused on individual-level behavior

change, delivered in groups; it does not act on the sexual networks that are crucial to spreading the epidemic. However, the bases for the intervention are highly socially interactive, with much of the content and many of the activities offering information and skills that hinge on how social networks and systems work. It is also not a structural intervention that acts on what have been called the fundamental causes of health inequalities (Link & Phelan, 1995). Although it offers a space and format for examining how systems of opportunity and oppression (for example, as manifest in over-incarceration of African-American men) relate to sexual behavior and subsequent disparities in HIV prevalence, it does not *act on* the social structures and systems that produce and reproduce these health disparities. However, it was designed with a clear understanding of these relations and with the ideal multilevel intervention in mind. Thus, Straight Talk ideally would rest the individual-level intervention in a multilevel, multicomponent HIV prevention intervention that works at multiple levels, interacting across levels, to reduce HIV incidence in the entire African-American community. Finally, some commentators have called into question the role of sex partner concurrency in the heterosexual HIV epidemic, based on newer data (Padian & Manian, 2011).

CONCLUSION

The goals of the Straight Talk intervention are consistent with several recommendations from the National HIV/AIDS Strategy for the United States (The White House, 2010), specifically reducing disparities in new HIV infections through prevention efforts focused in communities where HIV is most heavily concentrated and applying evidence-based prevention approaches. Should testing of the intervention designed specifically for African-American heterosexual men demonstrate preliminary evidence of efficacy, such knowledge would contribute to both of these goals. However, behavioral interventions alone are unlikely to have a strong enough effect to change population-level transmission; thus, it is crucial that structural interventions are pursued. Further, in that the intervention explicitly recognizes the roles of community and structure, it is ideal to embed in a multilevel, combination approach to reducing HIV incidence, another method identified in the US strategy. The Straight Talk intervention represents an important step forward in the effort to reduce HIV prevalence in the African-American community by focusing on heterosexual men who have not received adequate attention in the past.

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