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Real Talk: Developing a Computer-Delivered Sexual Health Program for Black Men Who Have Sex With Men

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Introduction

HIV has disproportionately affected Black men who have sex with men (MSM) since the beginning of the epidemic (Centers for Disease Control and Prevention [CDC], 2011). Today, nearly half (44%) of the 1.1 million individuals living with HIV in the United States are African American, even though African Americans represent only 14% of the U.S. population (CDC, 2012; 2016a). Among the estimated 356,000 Black men living with HIV, approximately half (53%) are estimated to be MSM (Chen et al., 2012). In 2010, Black MSM represented nearly three-quarters of new HIV infections among Black men (CDC, 2016b), and young Black MSM aged 13-24 now account for more new infections than any other age or racial group of MSM (CDC, 2016b).

Despite the severe impact of HIV on Black MSM and the complex processes that produce HIV vulnerability in Black MSM communities – including racism, homophobia, internalized stigma, endogamous sex networks, and testing and treatment utilization patterns (Ayala, Bing, Kim, Wheeler, & Millet, 2012; Bowleg et al., 2013; Calabrese, Rosenberger, Schick, & Novak, 2015; Maulsby et al. 2014; Raymond & McFarland, 2009) – there are relatively few evidence-based HIV prevention interventions designed specifically for Black MSM (Maulsby et al., 2013).¹ Nor are there currently any demonstrated efficacious computer-delivered HIV prevention interventions targeting Black MSM, notwithstanding the emergence of a new wave of effective computer-delivered sexual health programs (Noar, 2011). Because funders often require practitioners to use programs that have demonstrated efficacy through rigorous outcome studies, such as the 33 interventions in the CDC’s Diffusion of Effective Intervention (DEBI) Library (effectiveinterventions.org), the lack of evidence-based programs designed specifically for Black MSM may limit our ability to respond to Black MSM’s diverse sexual health needs, identities (Hampton et al., 2013; Malebranche, 2008; Malebranche, Gvetadze, Millett, & Sutton, 2012), and intervention format preferences (Venable et al, 2012).

¹ Maulsby et al 2013 identified five evidence-based interventions designed for Black MSM: Connect with Pride, The Bruthas Project, Many Men, Many Voices (3MV), d-up: Defend Yourself!, and Brother to Brother. Three of these – Connect with Pride, 3MV, and d-up: Defend Yourself! – are in CDC’s DEBI library.

Seeking to offer additional evidence-based HIV prevention options for Black MSM and the providers who serve them, the authors have developed Real Talk. The program is loosely based on a popular trilogy of Afrocentric, group level HIV prevention interventions developed for adult, teenage, and HIV-positive African-American women – SISTA, SiHLE, and WiLLOW (Wingood & DiClemente, 2006). The trilogy focuses on risk reduction strategies, skills building, peer support and community empowerment using a social cognitive theoretical framework within the context of the intersectionalities experienced by Black women. The three interventions are part of CDC’s DEBI library and are also now available in two-hour long computer-delivered versions, all of which demonstrated preliminary efficacy in reducing HIV-related risks (Klein & Card, 2011; Klein, Lomonaco, Pavlescak, & Card, 2013; Wingood et al., 2011). Given the continuing shift in federal HIV prevention policy from supporting community-delivered behavioral interventions to a biomedical model of HIV testing, treatment, and pre-exposure prophylaxis (PrEP), we recognize that many organizations may no longer have sufficient resources to implement multi-session, face-to-face interventions such as the SiSTA/SiHLE/WiLLOW trilogy, even if this may be their preferred program modality. At the same time, after more than 25 years of HIV prevention activities and increased treatment optimism (Chen, 2013), many MSM may have less motivation to attend HIV-focused prevention programs than they did in the past. This changing financial and attitudinal landscape motivated us to create Real Talk in both face-to-face and computer-delivered formats, the latter of which is the primary focus of this article.

In adapting the SISTA/SiHLE/WiLLOW trilogy for Black MSM, Real Talk positions HIV prevention within a growing gay health movement that defines sexual health as more than safer sex practices or the absence of disease (Goldhammer & Mayer, 2011; Halkitis, Wolitski, & Millett, 2013). Real Talk does this through affirming Black MSM’s resilience in the face of intersecting forms of discrimination and oppression (Follins, Walker & Lewis, 2014; Herrick, Stall, Goldhammer, Egan, & Mayer, 2014). And because individuals vary in their ability – and indeed, desire – to engage in consistent condom use, Real Talk is structured around a clearly articulated sexual harm reduction framework (Andrasik & Lostutter, 2012) that recognizes the many HIV prevention strategies that MSM use today

(Fuqua et al., 2015; McFarland et al, 2011; Wilton et al, 2015), including serosorting (Cassels & Katz, 2013), negotiated safety agreements (Cassells & Katz, 2013), and, increasingly for HIV-negative men, Pre-Exposure Prophylaxis [PREP] (Calabrese, Earnshaw, Underhill, Hansen, & Dovidio, 2014; CDC, 2014). Our starting point is to “meet people where they are” (Harm Reduction Coalition, 2016) and not judge or pathologize men because of their (unsafe) sexual behaviors. Moreover, unlike many programs in the DEBI library, Real Talk does not attempt to persuade participants to adopt a particular HIV risk reduction strategy or set of strategies (e.g., 100% condom use with all partners, monogamous relationships, fewer sexual partners). The program instead offers men a six-step harm reduction tool to help them make sexual health decisions that are in line with their values, life objectives, and the current HIV prevention landscape outlined above. In this harm reduction framework, condom use is one, but not the only or necessarily the most effective, sexual health promotion strategy. By being upfront about these realities, we believe Real Talk can engage men who might otherwise be less responsive to condom focused HIV prevention programs.

Because the development of compelling and culturally appropriate HIV prevention programs requires a deep understanding of the experiences and intervention preferences of both target communities and practitioners, we developed Real Talk using an agile design process (Dingsøyr, Nerur, Balijepally, & Moe, 2012; Ferrario, Simm, Newman, Forshaw & Whittle, 2014). Agile design focuses on obtaining extensive stakeholder input through iterative formative research and product testing. These feedback loops provide repeated opportunities to adapt product prototypes and respond to changing conditions that may occur during a development process, such as continued declines in condom use and new CDC recommendations on PrEP use by MSM. In this article, we discuss our formative research, present our product development methodology, and provide an overview of the Real Talk program. In conclusion we position our work within the broader context of evidence-based sexual health promotion in an age of decreased funding, HIV prevention burnout, and the increased use of computer-delivered health promotion modalities.

Methods

Real Talk was developed from 2010-2015 through Phase I (2010-2012) and Phase II (2013-2016) Small Business Innovation Research (SBIR) grants from the National Institute on Minority Health and Health Disparities (NIMHD). Paralleling SBIR grant's binary funding structure, product development occurred in two stages – Phase 1: formative research, prototype development and pilot testing, and Phase 2: final product development and outcome study of computer-delivered format (see Figure 1: Real Talk Product Development Flow Chart). [insert Figure 1]

Formative Research. We began formative research in Fall 2010 with an online needs assessment of HIV prevention practitioners serving Black MSM communities. Our goal was to obtain national perspectives on key factors shaping formal HIV prevention programs and activities. We recruited subjects through the National Minority AIDS Council email list. The survey consisted of 12 demographic questions and approximately 25 open- and closed-ended questions on (1) current HIV prevention issues, (2) community assets and challenges, (3) experiences adapting evidence-based interventions, and (4) intervention, activity and adaption kit preferences. In order to obtain more in-depth practitioner perspectives on these issues, from November 2010 - January 2011, the investigators conducted 30 to 60 minute-long, semi-structured interviews with staff at four community-based organizations serving Black MSM in the Atlanta and San Francisco metropolitan areas. During this same period, the project team conducted five focus groups at these same community-based organizations to obtain client perspectives on how HIV prevention programs might best address their needs and preferences. We recruited men through flyers at community-based organizations and a Craigslist ad, and participants received a \$40 gift card in compensation for their time. Focus groups were approximately 2 ¼ hours long and covered four topics: (1) experience with HIV prevention programs, (2) the HIV epidemic in Black MSM communities, (3) protective and risk behaviors, and (4) support and obstacles for leading a healthy life.

All practitioner interviews and clients focus groups were digitally recorded and transcribed. A three-person formative research team analyzed these data in AtlasTi 6 using a grounded theory approach (Strauss & Corbin, 1990). First, each team member independently read the same focus group transcript and coded variables and items within overarching domains. After collectively discussing this initial

coding, the team created a code library and reviewed the remaining qualitative data, with new codes being created as needed. The team then identified key themes based on frequency and depth of discussion, presence across multiple formative research data sources, and interconnection to other themes.

Practitioner Needs Assessment Demographics. Sixty-one practitioners from 19 states and the District of Columbia completed the online needs assessment. Respondents ranged in age from 23 to 62 ($M=42$). Fifty-five percent were male, 42% female, and 3% transgender, and the sample was almost equally divided between Black (52%) and white (47%), with 12% percent also reporting Latino/Hispanic ethnicity. About two-thirds of respondents had college degrees (Bachelors, 38%; Masters, 33%), and the most common job functions were program manager (32%), director (22%), and HIV test counselor (10%). Respondents had significant experience working on HIV prevention with Black MSM (25% > 10 years, 33% 6- 10 years, and 27% 3-5 years). Over half (52%) worked at HIV-specific community-based organizations, 18% at health departments, 15% at non-HIV specific community-based organizations, and 13% at clinics/hospitals. Approximately one-third of practitioners had implemented a Black MSM specific evidence-based program, and one-quarter of providers reported adapting a non-Black MSM focused program for their Black MSM populations, mainly community-level interventions from the DEBI library.

Practitioner Interview and Focus Group Participant Demographics. Eleven staff members from four community-based organizations participated in the semi-structured interviews (six in the Atlanta metro area, and five in San Francisco). Respondents ranged in age from 20 to 50 ($M=38$). Nearly all (nine) had college level educations. Six practitioners were project directors/coordinators, two were outreach coordinators, and one each an executive director, intern and consultant. On average, respondents reported eight years working on HIV prevention with Black MSM, with a range of one to 25 years, and most had implemented evidence-based based HIV prevention programming with Black MSM through their organizations. Interviewees had similar age, educational levels, and job functions in comparison to needs assessments respondents, but were more likely to be MSM. This difference is likely explained by the fact that all the interviewees worked directly with their organization's MSM clients, whereas many needs

assessment respondents managed large organizations that serve broader constituencies. At each of these four community-based organizations, we conducted focus groups with self-identified Black MSM, 25 in Atlanta (two focus groups at one organization), and 24 in San Francisco (three groups at three different organizations). Participants ranged in age from 20 to 65 (M=42). A majority (53%) identified as gay. The remainder described their sexual identity as homosexual (10%), bisexual (10%), same gender loving (6%), and heterosexual (6%), with 16% declining to state a sexual identity. Over half of respondents reported some college attendance, and 60% reported monthly incomes of less than \$2,000 per month.

Formative Research Themes. Practitioners in the online national needs assessment most frequently identified stigma and its connections to racism, homophobia and religion (32% of respondents) as the most important HIV prevention issue facing Black MSM, followed by sexual identities (15%), HIV testing (15%), bareback sex/condoms (12%), and mental health issues (12%). These same themes were present in all of the practitioner interviews and client focus groups, with interviewed practitioners providing more in-depth discussion of harm reduction strategies than the online survey respondents, and clients providing more extensive discussion of relationship and spirituality issues than either group of practitioners. Analyzing the formative research data as whole, we identified three overarching—and interconnected—themes that strongly informed the development of Real Talk: (1) stigma, discrimination and intersectionalities in the lives of Black MSM, (2) the need for safe spaces and community, and (3) the need for sexual harm reduction approaches in HIV prevention programming.

Theme 1: Stigma, Discrimination and Intersectionalities in the Lives of Black MSM. In a recent article, Bowleg (2013) identifies a wide range of interacting discriminations experienced by Black gay and bisexual men in Washington, D.C., including negative stereotypes about Black men or Black gay men, racial microaggressions in mainstream and white LGB communities, heterosexism in Black communities, and perceived pressure to act masculine to avoid suspicions of being gay or bisexual. As Bowleg argues, these intersectional identities can be simultaneously a source of oppression and, at least for some men, an asset that frees individuals from gender and heteronormative hierarchies. Our focus group discussions

similarly examined the dynamic nature of intersectionalities in the lives of Black MSM, such as the following narrative from an Atlanta focus group participant:

I went to a conference at [a local university] run by a disk jockey here on the radio. It was [Black] men coming together to dialogue. And we didn't know that he was going to ask gay men and straight men separately to stand up. You know what I mean – 'are any gay brothers here?' And then he said, 'If you are, stand up.' And what happened was the straight guys scattered like crazy because they were sitting next to one of them. And then we asked questions about why that took place. One of the guys said 'I don't want a gay guy sitting next to me thinking about sex or having sex with me.' And the gay guy came back and said 'I'm as selective about my men as you are about your women.'

Within (white) gay community contexts, focus group participants and practitioners in turn provided many examples of how racism plays out through sexual attraction (see also Raymond & McFarland, 2009). As one San Francisco focus group participant explained:

I think part of problem is that within gay culture there are so many things that are acceptable that are not acceptable within mainstream culture. Like when did it become okay to say 'I don't do Black guys', 'I don't do Asian guys, and 'oh well, you're cute for a Black guy.' If you were a straight guy and you said that to a Black woman, you'd be crucified for it.

And even when non-Black men desire Black men, the underlying attraction may be grounded within racialized and class-based fantasies of hyper-masculinity (Calabrese et al., 2015):

A Black man is always in demand on the streets, that's a lot of people's fantasy. You have a good-looking guy, a good-looking Black man with a big dick, and you're gonna get what you know. (San Francisco participant)

Echoing the growing literature on stigma and Black MSM (Bird & Voision, 2013; Bowleg, 2013; Overstreet, Earnshaw, Kalichman, & Quinn, 2013; Smith et al., 2012), many practitioners connected these experiences of intersectionalities to the everyday sexual and affective lives of Black MSM. In exploring the "double stigmas" of racism and homophobia presented above, practitioners examined how these processes work together to generate HIV vulnerability:

With rejection from the family, and isolation from the community or even people in general, you're not feeling wanted. And then you want to feel wanted, and you go out and just get caught up in a situation where you may have unprotected sex. ... I think it's just the impact of the family being negative towards someone's sexuality. (Atlanta practitioner)

In these processes of stigma and social isolation, churches and families often play key roles by continuing to equate homosexuality and HIV:

For many of us, our families, when we were younger, instilled the religious thing in us. And then the HIV thing came on the scene. The first talk was that ‘it’s a homosexual disease caused by homosexuals.’ Many of our families latched on to that belief. And they still hold on to that belief to this day” (San Francisco participant).

Yet despite these challenges, many focus group participants stressed how family and religion/spirituality can be important sources of resilience and social support in their lives (see also Foster, Arnold, Rebchook, & Kegeles, 2011). As one HIV-positive man in Atlanta explained how he maintains his health:

Spirituality is number one. And having that core of people that know my status – family and friends that check up on me. Even if they don’t understand what emotional mindset I’m in at the moment, they still give words of encouragement.

Theme 2: The Need for Safe Spaces and Community. Recognizing the complex landscape of intersectionalities and HIV vulnerability experienced by Black MSM, practitioners in the San Francisco and Atlanta metropolitan areas emphasized how they have been changing their HIV prevention programming to place greater attention on the social and affective dimensions of men’s lives:

Over the past two to four years we have completely switched things around to being more about that social component – you know, depression, people feeling socially isolated, people feeling neglected, people feeling not welcomed. All those cofactors that play a part into why people are engaging in risky behavior. (San Francisco practitioner)

Practitioners seek to provide men a safe space to examine their experiences of intersectionalities and the ways in which stigma around MSM sexuality and HIV can lead to risky behaviors and HIV transmission. Nearly all focus group participants affirmed the importance of having these safe spaces where they can reflect on their lives and receive social support:

I’ve enjoyed the fact that we can all come out and express ourselves openly and fully about how we view different topics around HIV. One of the biggest things I’ve taken into consideration while being here is the lack of support that we have as African-Americans, Black, gay, straight whatever you want to call it. The love is no longer there. (Atlanta participant)

Like practitioners, most focus group participants connected these organizationally-based safe spaces to broader networking and community building activities that further support their sexual health:

What I like most about [the organization’s program] is the sense of community and support. Everyone is real live people, each going through their own individual evolutionary process, you know, self-development, self-discovery and learning. This is a networking type environment where you can find the resources for wherever you may be in your process of recovery and healing. (San Francisco participant)

Theme 3: The Need for Sexual Harm Reduction Approaches in HIV Prevention Programming. Turning to questions of HIV prevention and sexual health messaging, most focus group discussions began with a few men reiterating the importance of consistent condom use. Others would then open up and share that they and their friends do not always use condoms. These diverging views generated energetic – if not always easy conversations – about what should be normative HIV prevention and sexual health practices. Here, a majority of focus group participants advocated for programs that responded to the reality that many men are no longer willing or able to adhere to the “use a condom every time” strategy. For some men, the decision to not use condoms is based primarily on a preference for condomless anal sex:

I think it’s down to a personal choice that you choose to do it raw. Don’t care how educated you are, or how sophisticated you are, if you like having raw sex, you just like having raw sex. And that’s that. (Atlanta participant)

Other men went further and articulated multi-faceted sexual harm reduction strategies:

I don’t know of a single man that says the reason why they’re negative is they always use a condom. Not a single one. So how do we stay negative given the fact that many people find using a condom all the time is either not enjoyable or possible? ... I’m in a relationship with someone that’s positive and when we have anal sex we don’t use condoms, in part because we had tests and we knew he was positive. I really have believed that strategic positioning helps, so I’m generally always the top when we have anal sex. And I also know some things like (a) I don’t have herpes or syphilis, (b) I’m circumcised, and (c) his viral load is low (San Francisco participant).

Nearly all of the interviewed practitioners explained how their organizations are responding to these decreases in condom use among their clients:

It’s not just abstinence or condoms anymore. People are going to have unprotected sex. Let’s be realistic here. They may not tell you or admit it but they are out there having unprotected sex. So why don’t you provide the necessary tools for them to know they can engage in that behavior and still have safer sex? As opposed to not knowing how to do that and continuing to engage in even riskier behavior. (San Francisco practitioner)

And while a handful of practitioners in the national needs assessment were adamant about re-enforcing the “use a condom every time” message, a larger number of surveyed practitioners affirmed the need for harm reduction approaches that address the sexual diversity among Black MSM (e.g., tops, bottoms, versatile, oral) and the broader psychosocial and structural contexts of sexual behavior, including family relations, stigma and housing issues.

Real Talk Product Development

Phase I Product Development. With these formative research results in hand, the investigators began adapting the SISTA/SiHLE/WiLLOW trilogy into the Real Talk program. The team first reviewed the trilogy curricula and asked: (1) were the original activities relevant for Black MSM? (2) were any language or content changes needed to make the activity more appropriate for Black MSM? and (3) were any new activities needed to address the three central themes identified in the formative research? We concluded that most of the original trilogy program activities required only minor modification to resonate with Black MSM (e.g., changing pronouns, creating examples and role-play scenarios that reflect Black MSM experiences). The investigative team also decided to use WiLLOW as the overarching curricular framework for Real Talk because (1) its four sessions – Gender Pride and Social Support, Coping Skills, Condom Use, and Healthy Relationships – situate sexual behavior within the broader contexts of community and intersectionalities, and (2) it is the only program in the trilogy that fully explores the challenges faced by HIV-positive individuals and their partners.

We did, however, make several more significant adaptations to respond to the realities of Black MSM identified in our formative research. For the opening module, we reconfigured the “Gender Pride” activities into a more open exploration of values, experiences with intersectionalities, and community engagement that does not require men to align with a fixed or singular identity (e.g., sexuality, gender, race, HIV status). This refocusing required the creation of several new activities: “Know Your Roles” (a reflection on social roles/identities and possible conflicts between them), “My Communities” (a community resource mapping exercise), and “Being an Advocate” (a peer advocacy and community empowerment activity). In terms of sexual risk reduction, we reframed WiLLOW’s “Condom Skills” activities into a sexual harm reduction module in which condom use is one, but not the only, risk reduction strategy presented. And for the concluding relationship module, we created two new activities – “Relationship Coaching” and “Build Your Guy and Relationship” – to reflect the diversity of MSM relationship structures and the different dynamics that may be present in male/male versus male/female relationships.

With a complete curricular framework in place, we began pilot testing Real Talk face-to-face activity prototypes with groups of self-identified Black MSM to (1) obtain feedback in the most time and cost efficient manner, (2) determine if the program resonated with diverse Black MSM, and (3) obtain real world examples to use in the computer-delivered program. We made the decision to first pilot test the face-to-face activity rather than the computer-delivered prototypes because Phase I funding permitted us to develop a complete draft of the face-to-face curriculum, but only two computer-delivered activity prototypes. Over the second half of 2011, 34 Black MSM, roughly half HIV-positive and half HIV-negative, participated in pilot tests in the Atlanta and San Francisco metro areas. Each pilot test was approximately four hours long and included four activity blocks. At the end of each activity block, participants completed a brief survey containing closed-ended and opened-end questions on the appropriateness of the module's elements, whether they would delete the activity, and any changes they would suggest. The facilitator then led a group discussion on the relevance and appropriateness of the activities for meeting their needs. Participants were overwhelming positive about the program and gave the modules an average rating of 4.4 on a 1-5 scale (1 = strongly disagree, 5 = strongly agree) in eight categories², with the sexual harm reduction module receiving the highest score of 4.6.

Building on the face-to-face curriculum pilot tests, the production team next developed two short prototypes for computer-delivered activities: (1) a 15-minute interactive presentation on sexual harm reduction, and (2) storyboards for a "Findr" game where participants explore sexual decision making through online hook-up role-plays. In April 2012, eight Black MSM of varied sexual identities and education and income levels completed one-hour usability tests on these prototypes in San Francisco. Project staff observed participants as they navigated through the program and game storyboards, during which they responded to a series of qualitative and 7-point Likert-scale questions (1=strongly disagree, 7=strongly agree) designed to assess their impressions of the prototypes' relevance, content, delivery, clarity

² The eight categories were: Enjoyed Activity, Addressed Important Issues in Life, Learned Something New, Held My Attention, Understood Information Presented, Liked Activity Format, My Friends Would Enjoy Activity, and Affected How I Think About Myself.

and format. Participants responded very positively to the product prototypes, with the sexual harm reduction module receiving an average score of 6.15 out of 7 on ten items and the “Let’s Get It On” game storyboard receiving an average of 5.82 out of 7 on eight items.³

Phase II Product Development. With the awarding of the Phase II grant, the investigative team resumed Real Talk product development in Fall 2013. Given the positive Phase I pilot test results, we made only minor revisions to the face-to-face curriculum, and in March 2014 conducted a run-through of the entire program with 15 Black MSM at the San Francisco Department of Public Health. Participants were recruited through Craigslist and outreach at community-based organizations and received \$150 for completing the two-day intervention. After this run-through we decided to combine the Stress and Social Support modules to improve intervention flow and reduce identified content redundancies. With the curriculum finalized, we drafted a 120-page facilitators manual to support implementation of the six module, 12-hour long face-to-face program.

Using this facilitators manual as our road map, we began developing the computer-delivered format of Real Talk in April 2014. As part of our agile development process, a panel of six Black MSM first offered suggestions on overall intervention style guide (e.g., themes, colors, fonts, images). Next, for each of the six modules, a team member drafted a storyboard with images, narration and activity formats. The two project PIs and the project director reviewed these drafts, and the storyboard lead integrated their suggestions into a revised storyboard. These versions were then reviewed by the community panel before being sent to the technology team (a lead programmer and a graphic designer). Building on these storyboards, the technology team programmed each module in Adobe Air, a cross platform development tool that enables a single program to play on Android tablets, Apple tablets, recent version Android

³ The ten evaluation categories for the sexual harm reduction module were: Enjoyed Activity, Liked Format/Concept, Liked Narrator, Liked Look, Liked Images, Understood Information, Held Attention, Friends Would Enjoy, Addressed Important Issues, and Learned Something New. The game evaluation used all of these as well except for “Liked Narrator” (there was no narrator for the game) and “Learned Something New” (the game did not present new content).

phones, and PC and Mac desktop computers. During the second half of 2014, the community panel reviewed each alpha version for content, display/flow, and overall user experience (e.g., how does the activity work, would I watch it, would other Black MSM watch it). The production team incorporated these suggestions into beta versions and completed programming for the entire computer-delivered intervention in early 2015.

The Computer-Delivered Real Talk Program

Like its face-to-face counterpart, the computer-delivered Real Talk intervention is divided into six discrete modules: 1. My Community, 2. Achieving our Goals, 3. Stress & Social Support, 4. Sexual Harm Reduction, 5. Communication, and 6. Building Healthy Relationships (see Table 1). [insert Table 1] The program takes approximately two hours to complete, and participants may stop at any point, resume where they left off, and if they desire, repeat already completed activities. All modules combine audio narration in accessible language, visual presentations, interactive components (e.g., drop and drag, list creation, scroll over pop-ups), games, and video vignettes of Black MSM talking about their lives (see Figures 2 and 3). In terms of style, we consciously inserted humor within each module to maintain viewer interest (e.g., the “mad scientist” presenter for Module 4’s Condom Laboratory) and to defuse potentially emotionally challenging topics (e.g., Module 5’s communication style videos, which mirror the over-the-top role-plays that face-to-face participants created in the 2014 pilot tests).

Building on our formative research and pilot tests, Real Talk’s six modules integrate the themes of stigma/intersectionalities, safe spaces/community and sexual harm reduction within a holistic health perspective. Our goal is to mirror the social connections and community engagement supported by face-to-face programs through using best practices in computer-delivered and online curriculum. In Module 1: My Community (15 minutes), Real Talk situates sexual health within personal values and community through presentations, self-reflection activities, and videos that directly address the supportive and oppressive dimensions of different communities. The module concludes with the narrator reflecting on the realities of intersectionalities in the lives of Black MSM. In Module 2: Achieving Our Goals (15 minutes), the emphasis switches from reflection to articulating life goals, including those related to sexual

relationships. In the culminating “Make Your Own Action Plan” activity, men identify community resources and informal networks that might help them realize one of their sexual health goals. Module 3: Stress & Social Support (20 minutes) then explores how stress can affect sexual decision-making and overall health. The centerpiece of this module is the presentation of two tools – the RELAX and DECIDE models from the SiSTA/SiHLE/WiLLOW trilogy – to help men cope with the stress in their lives in the most productive manner possible.

Having examined key structural and psychosocial factors shaping men’s sexual and affective lives, Real Talk turns its attention to sexual behavior in Module 4: Sexual Harm Reduction (40 minutes). The goal is to support men’s ability to make healthy decisions that meet their desires, relationship goals, and life objectives. The module begins by exploring the positive dimensions of sex, after which the discussion shifts to the potentially negative consequence of sex (e.g., sexual transmitted infections, physical and psychological violence, and emotional uncertainty). Next, we use the example of crossing a busy street to present a 6-step harm reduction decision-making tool⁴ and use the tool to evaluate common sexual risk reduction strategies, including serosorting, strategic positioning, condoms, PEP, PrEP, and pulling out. Affirming the importance of condoms as a sexual harm reduction tool, the Condom Laboratory activity then provides a humorous presentation of condoms currently available on the market and the different physical sensations they offer. The module concludes with men creating their own personalized sexual harm reduction strategy, a video reaffirmation of the importance of regular testing for HIV and other STIs, and the Findr online hook-up role-play game. In the last two modules, Communication and Healthy Relationships (30 minutes in total), Real Talk takes a step back from the techniques of sexual harm reduction and repositions sexual activity in its relational context. Through a

⁴ The six steps are: Step 1. Identify the potential harms associated with the behavior; Step 2. Come up with ways to reduce potential harms; Step 3. Consider how each option might reduce potential harms; Step 4. Rank the options in terms of how much they reduce harm; Step 5. Choose an option or options in sync with your goals and values; and Step 6. Develop a plan to help you stick with your harm reduction decision.

series of self-reflection and skills-building activities, these modules stress the importance of knowing what you want in sexual and affective relationships and having the confidence and skills to communicate these goals to partner(s). The program concludes with the narrator wishing the participants well and hoping that they enjoyed thinking about the connection between their sexual health and overall life goals.

Conclusion. In the past decade, researchers and policy makers have called for the expansion of culturally appropriate HIV-related programs, social marketing campaigns, and health-care services to address the elevated HIV rates in Black MSM communities (Maulsby et al., 2014; Mays, Cochran & Zamudio, 2004). During this same period, a growing gay men’s health movement has offered a vision of holistic, harm reduction based sexual health to address the needs of diverse groups of gay men/MSM. This sexual harm reduction paradigm accepts the reality that because many men do not – and most likely will not – achieve 100% condom use for anal sex, we must expand HIV prevention beyond “use a condom every time” messaging. Our formative research demonstrates that a holistic, harm reduction grounded sexual health promotion program is of interest to many practitioners and Black MSM in the Atlanta and San Francisco metropolitan areas. Our pilot testing suggests that Real Talk can help diverse Black MSM explore their sexual and affective lives, including healthier sexual decision-making in the age of multiple risk reduction strategies.

Like all health programs and curricula, Real Talk will likely have a finite shelf life. Seeking to maximize Real Talk’s relevance and longevity, we designed Real Talk to be a flexible tool that can address emerging sexual health issues without requiring a major reworking of the intervention. For example, the facilitator’s manual for the face-to-face format does not provide precise scripts, but instead presents general talking points and activity structures that can be tailored to examine topics not specifically addressed in the curriculum. Similarly, the computerized format provides various opportunities for internal reflection and participant generated content through listing and role-playing activities. This flexibility may help Real Talk resonate with individuals who might be less responsive to static and/or condom centered HIV prevention approaches.

Real Talk is also well suited to addressing the possible consequences of the current expansion of PrEP as a primary HIV risk reduction strategy in MSM communities (Mayer et al., 2015). Recent studies indicate that PrEP may be extremely effective in protecting against HIV infection (Volk et al, 2015). But not surprisingly given many men's dislike of condoms, the rate of other STIs in men on PrEP appears to be high – for example, in a San Francisco study, over 50% of men on PrEP contracted an STI other than HIV during the three years of clinical observation (Volk et al., 2015). Holistic, harm reduction programs such as Real Talk can offer men a structured, safe space to weigh the pros and cons of their sexual health decisions, including whether to use PrEP. These guided, self-reflections may also help reduce the current racial disparities in PrEP access among MSM in the US (Schneider, Bouris & Smith, 2015).

We recognize the accessibility issues posed by a two-hour, computer-delivered program that requires broadband Internet access for optimal usability. Our decision to develop a relatively long program, rather than a shorter app specifically for mobile phones, was based on the promising preliminary efficacy findings of the two-hour computer-delivered versions of the SiSTA/SiHLE/WILLOW trilogy (Klein & Card, 2011; Klein, Lomonaco, Pavlescak, & Card, 2013; Wingood et al., 2011). Our goal has been to similarly demonstrate Real Talk's preliminary efficacy in reducing sexual health risks and offer a technologically contemporary, evidence-based HIV prevention program option that could be included in the DEBI library and on other lists of sanctioned interventions. Given their longstanding engagement with Black MSM communities, we see practitioners – such as those at health departments, community-based organizations, health-care clinics, faith-based organizations, and college health centers – as primary conduits for connecting Black MSM to Real Talk. To facilitate product dissemination to practitioners, we have created a 2-minute Real Talk teaser video that will be posted on YouTube, the websites of interested organizations, and other social media outlets. And where men view actually Real Talk is not limited to the physical spaces of HIV prevention organizations, as they may watch Real Talk on their own personal computers, tablets, and later model Android phones.

Whether Real Talk produces changes in sexual health outcomes remains to be seen, and we are currently analyzing data from our recently concluded outcome study of the computer-delivered format.⁵ In our analysis, we are particularly interested in examining whether Real Talk affects the ways in which men conceive of and respond to their experiences of intersectionalities and if explicit harm reduction approaches may produce incremental improvements in sexual health. It is our hope that Real Talk's exploration of successful harm reduction strategies – as well as the challenges posed by stigma, intersectionalities, and other structural barriers – may encourage the development of informal sexual advocacy networks among MSM to support individual and community health. And by providing another sexual health promotion tool for practitioners, we seek to support the critical work of community-based practitioners in providing individuals a safe space in which to reflect on their lives, affirm their resilience in the face of intersectionalities, and help realize their relationship and life aspirations.

⁵ Given the financial constraints of SBIR grants, we were not able to conduct a three-arm outcome study to test the efficacy of both the face-to-face and computer-delivered versions of Real Talk compared to a control condition.

References

- Andrasik, M., & Lostutter, T. (2012). Harm reduction for high-risk sexual behavior and HIV. In G. A. Marlatt, M. E. Larimer, & K. Witkiewitz (Eds.), *Harm Reduction* (2nd ed.). New York, NY: The Guildford Press.
- Ayala, G., Bingham, T., Kim, J., Wheeler, D. P., & Millett, G. A. (2012). Modeling the impact of social discrimination and financial hardship on the sexual risk of HIV among Latino and Black men who have sex with men. *American Journal of Public Health, 102*(Suppl 2), S242–249.
- Bird, J. D. P., & Voisin, D. R. (2013). “You’re an open target to be abused”: A qualitative study of stigma and HIV self-disclosure among Black men who have sex with men. *American Journal of Public Health, e1–e7*.
- Bowleg, L. (2013). “Once you’ve blended the cake, you can’t take the parts back to the main Ingredients”: Black gay and bisexual men’s descriptions and experiences of intersectionality. *Sex Roles, 68*(11-12), 754–767.
- Bowleg, L., Burkholder, G. J., Massie, J. S., Wahome, R., Teti, M., Malebranche, D. J., & Tschann, J. M. (2013). Racial discrimination, social support, and sexual HIV risk among Black heterosexual men. *AIDS and Behavior, 17*(1), 407-418.
- Calabrese, S.K., Earnshaw, V.A., Underhill, K., Hansen, N.B., & Dovidio, J.F. (2014). The impact of patient race on clinical decisions related to prescribing HIV-pre-exposure prophylaxis (PrEP): Assumptions about sexual risk compensation and implications for access. *AIDS and Behavior, 18*(2), 226-240.
- Calabrese, S. K., Rosenberger, J. G., Schick, V. R., & Novak, D. S. (2015). Pleasure, affection, and love among Black men who have sex with men (MSM) versus MSM of other races: Countering dehumanizing stereotypes via cross-race comparisons of reported sexual experience at last sexual event. *Archives of sexual behavior, 1-14*.
- Cassels, S., & Katz, D. A. (2013). Seroadaptation among men who have sex with men: Emerging research themes. *Current HIV/AIDS Reports 10*(4), 305-313.

- Centers for Disease Control and Prevention (CDC). (2011). HIV surveillance--United States, 1981-2008. *MMWR. Morbidity and Mortality Weekly Report*, 60(21), 689–693.
- Centers for Disease Control and Prevention (CDC). (2012). Estimated HIV incidence in the United States, 2007-2010. *HIV Surveillance Supplemental Report*, 17(4). Retrieved from <http://www.cdc.gov/hiv/topics/surveillance/resources/reports/#supplemental>
- Centers for Disease Control and Prevention (CDC). (2014). Preexposure prophylaxis for the prevention of HIV infection in the United States - 2014: A clinical practice guideline. <http://www.cdc.gov/hiv/pdf/prepguidelines2014.pdf>
- Centers for Disease Control and Prevention (CDC). (2016a, February). HIV and AIDS among African Americans. Retrieved from <http://www.cdc.gov/hiv/risk/racialethnic/aa/facts/index.html>
- Centers for Disease Control and Prevention (CDC). (2016b, May). HIV among African American gay and bisexual men. Retrieved from <http://www.cdc.gov/hiv/risk/racialethnic/bmsm/facts/>.
- Chen, Y. (2013). Treatment-related optimistic beliefs and risk of HIV transmission: A review of recent findings (2009-2012) in an Era of treatment as prevention. *Current HIV/AIDS Reports*, 10(1), 79-88.
- Chen, M., Rhodes, P. H., Hall, I. H., Kilmarx, P. H., Branson, B. M., Valleroy, L. A., & Centers for Disease Control and Prevention (CDC). (2012). Prevalence of undiagnosed HIV infection among persons aged ≥ 13 years--National HIV Surveillance System, United States, 2005-2008. *MMWR. Morbidity and Mortality Weekly Report*, 61 Suppl, 57–64.
- Dingsøyr, T., Nerur, S., Balijepally, V., & Moe, N. B. (2012). A decade of agile methodologies: Towards explaining agile software development. *Journal of Systems and Software*, 85(6), 1213-1221.
- Ferrario, M. A., Simm, W., Newman, P., Forshaw, S., & Whittle, J. (2014). Software engineering for 'social good': Integrating action research, participatory design, and agile development. In *Companion Proceedings of the 36th International Conference on Software Engineering* (pp. 520-523). ACM.

- Follins, L. D., Walker, J. N. J., & Lewis, M. K. (2014). Resilience in Black lesbian, gay, bisexual, and transgender individuals: A critical review of the literature. *Journal of Gay & Lesbian Mental Health, 18*(2), 190-212.
- Foster, M. L., Arnold, E., Rebchook, G., & Kegeles, S. M. (2011). “It's my inner strength’: Spirituality, religion and HIV in the lives of young African American men who have sex with men. *Culture, Health & Sexuality, 13*(9), 1103–1117.
- Fuqua, V., Scott, H., Scheer, S., Hecht, J., Snowden, J. M., & Raymond, H. F. (2015). Trends in the HIV epidemic among African American men who have sex with men, San Francisco, 2004–2011. *AIDS and Behavior, 19*(12), 2311-2316.
- Goldhammer, H., & Mayer, K. H. (2011). Focusing on sexual health promotion to enhance preventive behaviors among gay men and other men who have sex with men: Report from a state-of-the-art conference. *AIDS and Behavior, 15 Suppl 1*, S1–8.
- Halkitis, P. N., Wolitski, R. J., & Millett, G. A. (2013). A holistic approach to addressing HIV infection disparities in gay, bisexual, and other men who have sex with men. *The American Psychologist, 68*(4), 261–273.
- Hampton, M. C., Halkitis, P. N., Storholm, E. D., Kupprat, S. A., Siconolfi, D. E., Jones, D., ... & McCree, D. H. (2013). Sexual risk taking in relation to sexual identification, age, and education in a diverse sample of African American men who have sex with men (MSM) in New York City. *AIDS and Behavior, 17*(3), 931-938.
- Harm Reduction Coalition. (2016). Principles of Harm Reduction. <http://harmreduction.org/about-us/principles-of-harm-reduction/>. Accessed July 1, 2016.
- Herrick, A. L., Stall, R., Goldhammer, H., Egan, J. E., & Mayer, K. H. (2014). Resilience as a research framework and as a cornerstone of prevention research for gay and bisexual men: Theory and evidence. *AIDS and Behavior, 18*(1), 1-9.

- Klein, C. H. & Card, J. J. (2011). Preliminary efficacy of a computer-delivered HIV prevention intervention for African American teenage females. *AIDS Education & Prevention*, 23(6), 564-576.
- Klein, C. H., Lomonaco, C. G., Pavlescak, R., & Card, J. J. (2013). WiLLOW: Reaching HIV-positive African-American women through a computer-delivered intervention. *AIDS and Behavior*, 17(9), 3013-3023.
- Malebranche, D. J. (2008). Bisexually active Black men in the United States and HIV: Acknowledging more than the “down low.” *Archives of Sexual Behavior*, 37, 810–816.
- Malebranche, D. J., Gvetadze, R., Millett, G. A., & Sutton, M. Y. (2012). The relationship between gender role conflict and condom use among Black MSM. *AIDS and Behavior*, 16(7), 2051-2061.
- Maulsby, C., Millett, G., Lindsey, K., Kelley, R., Johnson, K., Montoya, D., & Holtgrave, D. (2013). A systematic review of HIV interventions for black men who have sex with men (MSM). *BMC Public Health*, 13, 625.
- Maulsby, C., Millett, G., Lindsey, K., Kelley, R., Johnson, K., Montoya, D., & Holtgrave, D. (2014). HIV among black men who have sex with men (MSM) in the United States: A review of the literature. *AIDS and Behavior* 18(1), 10-25.
- Mayer, K. H., Hosek, S., Cohen, S., Liu, A. L., Pickett, J., Warren, M., ... & Grant, R. (2015). Antiretroviral pre-exposure prophylaxis implementation in the United States: A work in progress. *J Int AIDS Soc*, 18, 19980.
- Mays, V. M., Cochran, S. D., & Zamudio, A. (2004). HIV prevention research: Are we meeting the needs of African American men who have sex with men? *The Journal of Black Psychology*, 30(1), 78–105.
- McFarland, W., Chen, Y.-H., Raymond, H. F., Nyugen, B., Colfax, G., Mehrtens, J., ... Truong, H.-H. M. (2011). HIV seroadaptation among individuals, within sexual dyads, and by sexual episodes, men who have sex with men, San Francisco, 2008. *AIDS Care*, 23(3), 261–268.

- Noar, S. M. (2011). Computer technology-based interventions in HIV prevention: State of the evidence and future directions for research. *AIDS Care* 23(5), 525-233).
- Overstreet, N. M., Earnshaw, V. A., Kalichman, S. C., & Quinn, D. M. (2013). Internalized stigma and HIV status disclosure among HIV-positive black men who have sex with men. *AIDS Care*, 25(4), 466–471.
- Raymond, H. F., & McFarland, W. (2009). Racial mixing and HIV risk among men who have sex with men. *AIDS and Behavior*, 13(4), 630-637.
- Schneider, J. A., Bouris, A., & Smith, D. K. (2015). Race and the public health impact potential of PrEP in the United States. *JAIDS Journal of Acquired Immune Deficiency Syndromes* 70.1, e30-e32.
- Smith, W. (2012). Exploring dimensions of racism, homophobia, and social network as concomitant predictors of condom use in a sample of Black MSM. *Journal of Gay & Lesbian Social Services*, 24(4), 417-445.
- Strauss, A., J. & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. London: Sage.
- Vanable, P. A., Carey, M. P., Brown, J. L., Littlewood, R. A., Bostwick, R., & Blair, D. (2012). What HIV-positive MSM want from sexual risk reduction interventions: Findings from a qualitative study. *AIDS and Behavior*, 16(3), 554-563.
- Volk, J. E., Marcus, J. L., Phengrasamy, T., Blechinger, D., Nguyen, D. P., Follansbee, S., & Hare, C. B. (2015). No New HIV Infections with Increasing Use of HIV Preexposure Prophylaxis in a Clinical Practice Setting. *Clinical Infectious Diseases*, 61(10), 1601-1603.
- Wingood, G. M., & DiClemente, R. J. (2006). Enhancing adoption of evidence-based HIV interventions: Promotion of a suite of HIV prevention interventions for African American women. *AIDS Education And Prevention*, 18(SupplA), 161-170.

Wingood, G.M., Card, J.J., Er, D., Solomon, J., Braxton, N., Lang, D. Seth, P., Cartreine, J. & DiClemente, R.J. (2011). Preliminary efficacy of a computer-delivered HIV intervention for African-American women. *Psychology & Health, 26*(2), 223-234.

Wilton, L., Koblin, B., Nandi, V., Xu, G., Latkin, C., Seal, D., ... & Spikes, P. (2015). Correlates of seroadaptation strategies among Black men who have sex with men (MSM) in 4 US cities. *AIDS and Behavior 19*(12), 2333-46.