Published in final edited form as:

Qual Health Res. 2013 October ; 23(10): 1344–1353. doi:10.1177/1049732313505712.

Text Messaging for Sexual Communication and Safety Among African American Young Adults

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Abstract

African American young adults are at high risk of HIV infection during their lifetimes, and the male condom remains the best method of prevention. Efforts to increase condom use should address the barrier of condom negotiation. We conducted a thematic analysis of qualitative, semi-structured interviews with African American young adults to examine their use of text messaging for requesting Human Immunodeficiency Virus (HIV) or sexually transmitted infection (STI) testing and condom use within the larger context of general sexual communication using text messages. Text messaging gave participants a level of comfort and disinhibition to discuss sexual topics and negotiate sexual safety. Benefits of text messages included ease of communication, privacy, and increased ability to express condom desires. Difficulties reflected the potential relationship implications of suggesting HIV/STI testing and condom use. Condom negotiation strategies using text messages also mirrored those used found to be used in face-to-face communication.

Keywords

adolescents / youth; at-risk; communication; content analysis; HIV/AIDS prevention; sexuality / sexual health; technology

The Centers for Disease Control and Prevention estimate that 1 out of 16 African American men and 1 out of 32 African American women will be diagnosed with Human Immunodeficiency Virus (HIV), rates much higher than those of White or Latino/Hispanic Americans (Centers for Disease Control and Prevention, 2010). The male condom remains the most effective means of preventing sexual transmission of HIV, but requires agreement between two people to ensure its use. Increasing effective safer sex communication is crucial to reduce risky sexual behavior, because difficulties in condom negotiation have been cited as a barrier to condom use in multiple populations (Boer & Mashamba, 2007; Iwuagwu, Ajuwon, & Olaseha, 2000; O'Leary et al., 2003; Sri Krishnan et al., 2007). Mobile phone technology represents a new yet nearly ubiquitous form of communication among minority populations, and researchers have already begun to develop innovative

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Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

interventions using text messaging as the medium of delivery. Unfortunately, little research has been done on the use of text messaging in sexual communications in general, or more specifically in negotiating condom use and safer sex. We aimed to begin to fill this gap in the literature by conducting a thematic content analysis of interviews about the use of text messaging not just as fertile ground for intervention delivery, but as a sexually related behavior that is itself worthy of study.

Background

Condom Negotiation

Researchers have highlighted various problematic aspects of face-to-face condom negotiation. In heterosexual relationships, the nature of male condom use inevitably means that men often have the direct ability to ensure condom use even if their partners do not desire to use them, but women might be required to propose and negotiate condom use in the face of partner resistance. Wingood and DiClemente's application of the Theory of Gender and Power (TGP) to women's experiences with HIV risks (Wingood & DiClemente, 2000) suggests several barriers particular to young African American women in sexual safety and condom negotiation within relationships. Women are often primarily responsible for condom negotiation (Carter, McNair, Corbin, & Williams, 1999; Pulerwitz & Dworkin, 2006), yet they might not have the power or authority to make important decisions in the relationship. If dependent on shared income, women generally want to avoid behaviors that threaten their financial security. Finally, sexual scripts and double standards often dictate that women should be more passive in sexual relationships.

Regarding additional barriers to safer sex, both men and women might perceive condom negotiation as an interruption of the "spontaneous" nature of sex (Diekman, Goodfriend, & Goodwin, 2004). A conversation about condoms that includes possible consequences of not using a condom might be difficult to accomplish in the "heat of the moment." Fears of negative evaluations by a partner are also a barrier to condom negotiation, particularly for women and girls (Kelly & Bazzini, 2001). Women and girls might fear that the partner will think they are unfaithful or promiscuous if they propose condom use (Sarkar, 2008), or simply less exciting (Broaddus, Morris, & Bryan, 2010). Partners might also construe requesting condoms as a sign of infidelity, STI diagnosis, or lack of trust in the relationship (Sarkar, 2008).

Condom negotiation has also been cited as one possible mechanism for the link between intimate partner violence (IPV) and HIV risk (El-Bassel, Gilbert, Witte, Wu, & Chang, 2011). Requesting condom use might directly lead to IPV, or those women who experience IPV might be less likely to request condom use. Evidence shows that condom use decreases over the course of a relationship. In particular, condom use is less likely in longer relationships among African American youth (Matson, Adler, Millstein, Tschann, & Ellen, 2011).

The history of research in condom negotiation has so far been limited to face-to-face communication (Noar, Morokoff, & Harlow, 2002; Schroder, Johnson, & Wiebe, 2009). Although people might use different strategies to negotiate condoms, converging evidence

from studies with college students (Noar, Morokoff, & Harlow, 2002) and urban women (Williams, Gardos, Ortiz-Torres, Tross, & Ehrhardt, 2001) suggests that common negotiation strategies include explanation of consequences if a condom is not used, refusal of sex, and eroticization of condom use. Explanation of consequences is characterized by highlighting the importance of avoiding sexually transmitted infections (STIs), HIV, and pregnancy, refusal is characterized by simple refusal of sex if a condom is not used, and eroticization of condom use is characterized by an incorporation of condoms into the sexual scenario as an erotic and fun activity. Additional strategies might include a simple direct request, invoking relationship aspects such as trust and caring, or using deception. Discussion of HIV/STI testing with partners is also associated with higher levels of testing (Swenson et al., 2009; Trieu, Modeste, Marshak, Males, & Bratton, 2010).

Text Messaging for Sexual Safety

The Pew Internet and American Life Project estimates that minority adults use mobile phones and send text messages more frequently (median = 10/day) than Whites (5/day; Lenhart, 2010). Also, 51% of adults report having long and in-depth personal conversations over text messaging, especially African Americans and those who do not have regular Internet access (Lenhart, 2010). Electronic and cell phone technologies already have been utilized to increase HIV testing, deliver negative STI test results, send appointment reminders, answer sexual health questions, and conduct partner notification services (Lim et al., 2008; Swendeman & Rotheram-Borus, 2010).

Qualitative pilot work indicates that young people are receptive to receiving sexual health intervention through text messages and video messages, and see it as more convenient and private than face-to-face intervention sessions (Cornelius et al., 2012). Text messaging has been shown to be effective at dispensing information and resources for STI, HIV, and pregnancy prevention among high-risk, predominantly African American adolescents in San Francisco (Levine, McCright, Dobkin, & Klausner, 2008). The success of this program in a traditionally hard-to-reach population indicates that this medium might be especially impactful in minority and other higher-risk young adults. In one sample of urban adults recruited from an STI clinic, cell phone use was nearly universal. Seventy nine percent of the sample reported using text-messaging and 60% responded favorably to receiving health information via cell phones or the Internet (Samal et al., 2009). In a four-month texting intervention among 16–19 year olds in Australia, 80% of participants found them entertaining, 68% informative, and 73% showed the messages to others (Gold et al., 2010). There were also increases in knowledge and STI testing over time for both men and women. These types of interventions have utilized text messaging as an intervention or service delivery medium alone, as opposed to a naturally occurring sexually related behavior that could be capitalized on in HIV/STI prevention efforts.

Despite successes in the use of text messaging to deliver accurate information and answer questions, these efforts overlook the naturally-occurring use of text messages regarding sexual safety and condom negotiation within relationships. A richer understanding of the kinds of sexual communications occurring with text messages might have broad public health implications. New communication technologies offer opportunities for innovative

public health interventions, particularly for those related to sexual health. Such interventions could aim to decrease sexual risk behaviors, using text-messaging as both the medium of delivery and a tool for effective condom negotiation, to capitalize on its salience and ubiquity. Before the intervention can be developed, more research is needed on text messaging as a sexual behavior itself (i.e. “sexting”), as a precursor to increased sexual behavior and risk, and also as a potential precursor of safer sex. The extent to which condom negotiation that occurs via text messaging or other social media is different or similar to face-to-face strategies has not been empirically explored to date. Studying this naturally-occurring behavior will benefit future development of specific intervention content.

The theory of diffusion of innovations specifically indicates that there are five attributes of a new behavior or “innovation,” in this case the use of text messaging for condom negotiation, that determine its successful adoption: relative advantage, complexity, compatibility, trialability, and observability (Rogers, 1983). Relative advantage refers to the comparison of the innovation and the current behavior. In our case, ease of communication using text messaging might be seen as a relative advantage compared to a face-to-face communication. Complexity refers to how complex the new behavior is, and condom negotiation might be less complex if conducted using text messages than face-to-face. Compatibility refers to the similarity between the innovation and the current behavior, suggesting that the more similar the new behavior is to naturally occurring behavior, the easier its adoption. Trialability refers to the degree to which individual can experiment with the new behavior, therefore understanding the naturally occurring behavior and the multiple ways it is implemented is essential to developing intervention content. Finally, observability refers to how easily the behavior can be observed by others, which might not be applicable to this behavior, although dissemination of the innovation might be easier using text messages than in traditional intervention contexts.

We aimed to extend research on condom negotiation by specifically examining how African American young adults might use text messaging for safer sex communication, including the different strategies used. We used qualitative, semi-structured interviews with 20 African American young men and women to conduct a thematic content analysis of how text messaging is used to communicate about safer sex and negotiate condom use. Research questions include (a) how common is using texting for suggesting HIV/STI testing and condom use among this sample?, (b) what are the contexts of general sexual communication and the use of sexual safety communication with text messages?, and (c) how does text-message based condom negotiation differ from face-to-face negotiation in terms of benefits, difficulties, and strategies of using text messaging for condom negotiation?

Methods

Participants

We conducted interviews with 10 African American men and 10 African American women ages 18–25 recruited from an urban STI clinic waiting room. This clinic provides screening, diagnosis and treatment of sexually transmitted diseases, confidential HIV counseling and testing, free condoms, vaccinations against Hepatitis B, and risk reduction counseling. Patients waiting for an appointment in the clinic waiting room, regardless of the type of

health care services they were seeking, were approached by researchers to take part in a study about the use of technologies such as text messaging in their romantic and sexual relationships. If participants were interested, they were screened for eligibility criteria, which included only that they be between the ages of 18–25. They were not required to own a cell phone or report recent sexual activity, although interviews confirmed that all participants had experience with texting (either with their own phone or with a borrowed phone), and were sexually active. Most participants were heterosexual, although some indicated homosexual activity. Couples attending the clinic were not excluded, and one couple (a man and a woman) was included in the study. If participants were eligible, they were directed to a private room at the clinic after the conclusion of their appointment. There, they were guided through the informed consent process by the first author. The consent form was read verbatim, with verbal summaries of each page, and participants were given the opportunity to ask any questions.

Procedure

Semi-structured interviews lasted 45–60 minutes and were conducted by the first author. Participants were asked about their use of technologies (text-messaging and social network sites such as Facebook) with sexual partners. Specific probes asked participants to describe texts they sent and received with partners (texts in general, texts about sex, and texts about safer sex), how they felt about sending and receiving those texts, how texts differed with casual and more serious partners, and how participants used text messages to flirt, talk about sex, and negotiate safer sex. No information was obtained directly from participants' cell phones, although participants were asked to look at their own cell phone logs (if they had one) to provide examples of recently sent and received text messages from partners. Interviews were recorded and transcribed verbatim.

Data Analysis

The initial thematic coding tree was based on questions included in the interview guide, consisting of broad content areas such as condom negotiation, relationship aspects, and text message use. The co-authors then read all transcripts and collaboratively refined the coding tree based on themes that emerged from the data in three main ways. Transcripts of specific participants who were particularly articulate were discussed holistically, to develop codes that reflected text message use within a larger context of an individual person's sexual practices (for example, managing multiple partners). Themes that repeated across multiple participants were discussed, as well as deviations from the majority opinion (for example, the theme of the ease of text messaging for sexual topics). Finally, especially detailed and vivid individual quotes were discussed (for example, explicit description of sexual foreplay occurring over text messages).

As a result of this process, broad content codes included more specific subcodes. For example, the broad code of text message use also included the subcodes of motivations for text messaging, problems associated with text messaging, and topics discussed over text messaging. These were refined such that "motivations" included talking about condoms, flirting, and foreplay, "problems" included jealousy, misunderstandings and privacy, and "topics" included safe sex/testing, sex in general, and previous relationships, although not all

themes present in the interviews are fully discussed in this article. The first author then conducted searches for relevant quotes for the common themes of interest for this article, and grouped them in terms of similarity, looking for consistencies and inconsistencies of opinion. Specific quotes were chosen based on how well the participant summarized the overall theme expressed by the majority of participants, or provided a counterpoint to the majority of opinions. All authors discussed the validity of interpretations of the results and the specific quotes chosen to illustrate the major themes.

Results

Seventy percent of women and all men reported having sent sexually related text messages, and 60% of women and 80% men reported receiving such messages. Sixty percent of women and 70% of men reported using text messaging for some kind of condom request or negotiation, and 20% women and 20% men reporting using text messaging to talk about HIV/STI testing.

The Contexts of General Sexual Communication

The use of text messages for general sexual communication was relatively high. Contrary to gender stereotypes, women were just as likely to initiate sexual communication as men. The medium of texting seemed to disinhibit the participants in these discussions. Text messages allowed participants to be less shy about discussing sexual matters than if these conversations took place face-to-face or over the phone.

It's easier to flirt when you're using texts actually because . . . you don't have to worry about the other person laughing on the phone while you're saying what you're saying, or worrying about awkward silences and pauses. You can pretty much say what you want to say and laugh about it when stuff is getting sent back to you . . . I think it's much easier, and it's funnier, and it's fun. It feels a little bit uncomfortable when you're trying to flirt over the phone because you're hearing yourself talk, and somewhere . . . in the back of my mind, I'm like, "I can't believe I'm saying this . . . Ok, this is a little weird and it's not cool." But when I'm texting, it's like, "Hey, chill. I don't care." You don't hear me saying it [or] see me.

Several participants echoed the idea of text messaging having a disinhibiting effect on communication, which is reflected in the sexual explicitness of some participants' text messages. One participant (a woman) summarized the range of sexual topics that participants communicated through text messages:

[W]e talk about everything, from me asking, "Do you want a blow job?" to them asking me, "Do [you] want one?" . . . To me telling them, "I want you to hit it from the back when you get off of work." To telling them exactly how I want it done . . . To them telling me they're looking forward to it, and this is what they want to do, and how they want to do it. It's pretty provocative . . . Like in serious detail, to the point where I can take a picture of my teddies, pointing to each part showing him where I want him to suck and kiss at. To the point where you can take a picture of your vagina and open it up, like, "This place needs extra special attention." Or them sending a text message talking about, "You should start right here and work right

here.” So when the time does come, you’re already looking forward to it. You’re already pumped up, and then you’re comfortable because you already know what needs to be done.

Text Message Based Condom Negotiation

Although many participants reported being equally comfortable negotiating condom use face-to-face or through text messages, other participants expressed a definite preference for texting. For example, one participant stated that she preferred to text condom use requests to prevent partners from changing the subject or hanging up on her.

Oh why do I prefer [texting]? [Be]ause I don’t like doing it on the phone, talking to them. It’ll be a waste of time ‘cause they’ll usually try to hang up on you. So I do it just in text . . . to hurry up and get it over with . . . ‘Cause maybe I [would] feel more nervous saying it over the phone . . . [And] thinking about how I’m going to say it. I can just really say it in text.

This participant both reinforced the benefit of text messaging to discuss topics that might be uncomfortable within a more traditional conversation, and introduced the idea that partners might be less able to ignore a texted request for condoms.

Participants also viewed the more discreet nature of text messages as a benefit. They saw texting as a way of secretly communicating with casual partners without their primary partners’ knowing, because conversations could not be overheard. One participant specifically highlighted how he would use text messaging for secondary partners to ensure that he did not “bring anything home” to his primary partner (i.e., an STI).

I’ll just text them, “Can [you] bring a condom?” Or she might text me and ask me, “Do [you] already have one?” I say, “Yeah.” I might not and if I don’t have one, I’ll ask her if she could bring one on the way, or I’ll get one when she come here. And I do ask them questions about how many sex partners they had.

Despite a relatively high prevalence of using text messages for condom negotiation, one participant who thought sexting was “inappropriate” also indicated that he would not use text messaging to discuss condom use. He thought that his desires to use a condom would not be taken seriously if it did not happen face-to-face:

Before I even have sex with them [I’m] like, “You know I’m using a condom.” Some of them say, “No,” and some say, “Ok, that’s fine. I understand.” I won’t text that over the phone. Like I would say that to your face. Me? I’d be more verbal so they know I’m serious ‘cause like text messaging, you just take it as a joke.

When asked about condom negotiation using text messaging, difficulties that arose often revolved around the meaning of condom use in the relationship in general, rather than difficulties with using text messages themselves. Although participants were specifically asked questions about condom negotiation using text messages, responses usually did not include aspects of text messaging itself. One participant (a man) articulated the delicate nature of negotiating condom use in general when asked about negotiating using text messages:

[Y]ou gotta be real specific and real gentle with the conversation being brought up. They [are] gonna automatically think something's wrong, so I approach it very lightly first to see how that person will react. I'll say first, "I haven't [done] anything, I been totally honest with you and I am not saying I don't trust you. I know you trust me but I think we should just, you know, start using a condom." One time I just texted him early in the morning I was like, "Condom usage ASAP." He was just like, "What are you talking about?" I was like, "Me, you, sexual activity, condom usage," and he added it up and he was like, "Ok, do [you] have something? Was you cheating?" I am like, "No." Then he was like, "Why you wanna use a condom?" I said, "Just 'cause I do, better safer than sorry."

Another participant indicated that he would text a partner to ask if she had condoms if he did not have any, but it would make him uncomfortable.

I don't know, you're [not] supposed to ask females. The dude's supposed to stay with the condoms. The females, they can carry the pill. She's a female, she may not like [me asking her about condoms]. She's probably feeling, like, uncomfortable, I don't know. She'd probably feel, "I hope he don't think I got a disease or something."

Considering that partners' negative reactions could be one barrier to negotiation, we also examined participants' anticipated reactions if a partner requested condom use using text messaging. Reactions were mixed, but typically mirrored issues inherent in face-to-face condom negotiation. For most participants, condoms were only appropriate in casual relationships. Many women expressed that they would appreciate texts about condom use from casual partners.

I would have way more respect for him. As a matter of fact, if he did send me a text message like that I wouldn't be offended, hurt, or nothing, because most likely we're just sleeping with each other. There's probably somebody else that you're just sleeping with and that she's just sleeping with, so if you don't care about yourself, protect me that's just fine.

She was quick to say that if a serious partner texted her about condom use she would be "pissed" because, "I would think that if we were supposed to be in a serious relationship, then [why] would we need condoms?" She reported that she would assume her partner had found out he had an STI or had had sex with another person.

Men also felt positively about a partner requesting condoms using text messages. One participant said he would feel good if a secondary partner requested condoms: "Well, she's real safe and protective; she's trying to keep herself [safe]. She ain't trying to get no disease . . . I think, like, she clean." Again, this was for secondary partners but not a serious partner. He reinforced the idea that when you really trust a partner you do not need to use condoms:

Your regular partner you've been with for years or got kids by you; you probably don't need to use condoms with them. But if you ask the next person, you make sure they got condoms 'cause you know they ain't your soulmate.

To mirror the benefit of using text messaging to manage multiple partners described above, a unique disadvantage to texting was the ability for serious partners to discover participants' messaging logs. Many participants, particularly men, described the need to frequently delete their text messages to avoid being discovered.

Condom Negotiation Strategies

We also examined responses for evidence of the multiple strategies suggested by Williams and colleagues (Williams, Gardos, Ortiz-Torres, Tross, & Ehrhardt, 2001) and Noar and colleagues (Noar, Morokoff, & Harlow, 2002). These strategies included explaining the of consequences of unprotected sex, refusal of sex if a condom is not used, eroticization of condom use or using seduction to ensure condom use, using a direct request for condoms, highlighting the importance of condom use within a healthy relationship, and using deceptive strategies (e.g., claiming condoms were for pregnancy prevention when in fact the main concern was STI transmission). We found evidence for many of these strategies, but perhaps most common was a simple, direct request for both women and men: "Saying stuff like, 'I was thinking about fucking tonight or whatever but I don't have no condoms actually.' But then they say, 'Well I got one then,' and then I try to make my way over there."

So basically when we do talk about sex, it's not all just all around bang. Of course, I would say it would take the fun out of it when you have to discuss the safe parts about sex through text messages, but it is a necessity . . . We text real short, we say, "Grab Jimmies [condoms]," or, "No need B.C., no need birth control."

Some participants also articulated that they would explain the risks involved in not using protection: "When I be texting I be saying, like, 'If we do this we gotta use protection. Because anything can happen at any time if you not using no condom.' So therefore I just use protection."

Refusal of sex was also used as a condom negotiation strategy in text messages, often in response to a negative reaction after a direct request: "So [I] text message them, 'Make sure you get some condoms, grab some condoms.' Or, 'If you feel like you are in the mood tonight [if] we aren't going to use none then you don't need to come over.'" Despite conceptualizing text message conversations as a type of foreplay, condom use was rarely cited as being incorporated in these scenes. Only one participant (a woman) who used text messaging mostly for talking about sex also incorporated condoms in setting a romantic scene sent by texts: "'Do you still have that protection? Do you have the music on? Candles?' Stuff like that."

Finally, no participant seemed to use a deception strategy for condom use, although sometimes condom negotiation was couched in "codes" or euphemisms, which gave participants a (perhaps illusory) sense of privacy:

I put it in code though. I'd put it like, "When I come, I'm going to be walking through the rain." You know, "I'm going to have an umbrella." Or something like that, like, "I ain't going to take my hat off at your house."

Texting for Testing

The large majority of participants reported sexual communication through text messages, and seemed comfortable using them for both general sexual communication and discussing sexual safety. One participant described how she used text messaging with new partners to get to know them and discuss HIV testing and other aspects of sexual safety:

What are their hobbies, what do they like to do for fun, do [they] like to go to the movies [or] bowling. Basically to get to know the person first, ask them questions about themselves . . . I feel like that person is sending me a text message that he wants to have sex with me, or if he wants to get to that point, and then I will go to, “Ok, have you been to the doctor? When was your last sex partner? When was the last time you had sex? How many girls have you had sex with?”

One participant who reported discomfort with “sexting,” or sexual communication using texts indicated that he would, however, use text messaging to express his desire to get tested for HIV and STIs before having sex with a new partner:

Participant (P): It’s kind of hard, you just gotta sneak it in at the right time, because some people be just snap if you just ask them, like, do they have anything . . . Like, I will say, “What you doin’? You wanna go down to the clinic with me and get tested?” Like certain people say, “Yeah I’ll go with you,” and then from there go home and have sex. Interviewer (I): What if they don’t want to go with you?

P: I can’t do it with them [have sex].

Only one participant indicated that text messages were a good medium for discussing issues that specifically might incite conflict. She indicated that she had used text messaging to communicate with her partners about possible STI transmission, and characterized this as a positive aspect of text messaging:

If [something’s] bothering you like, “We should have been using protection from the get-go and now I think I might be pregnant.” . . . Also if you have to tell them, “I think I might have something, I’m sorry I cheated on you.” Stuff like, “[Not] feeling right down there, you might need to get checked out.” It’s always, like, either you can feel good that they didn’t text you back at all, you don’t even want to know what they’re thinking or what they’re going to say, or they can text you back and let you know how they’re feeling. [But] at least I didn’t [get] yelled at.

Discussion

Media reports tend to focus on the negative effects on privacy of “sexting,” or the possible link between “sexting” and sexual risk. Perhaps surprisingly then, for most participants, texting included issues of sexual safety, such as going to get tested before having sex, or using condoms. Participants saw some unique advantages to using text messaging, distinct from both face-to-face communication and talking over the phone, although discussion of the use of text messaging for sexual topics typically revolved not around the specifics of the medium of text messaging, but the larger context of the relationship. We have described the nature of this naturally-occurring behavior as the first step in a line of research aimed at

fully understanding sexual communication with text messages, determining the impact of text message content on subsequent behavior, and developing and testing of intervention content to increase effective sexual communication and reduce risky sexual behavior through this medium of communication.

From a strengths perspective, if sexually related texting engenders more comfort and ease with discussing sexual topics, it might actually empower young adults to discuss safer sex. We found some evidence for this possibility, because participants cited the ease of texting for discussing sexual topics, which allowed them to feel less shy or inhibited compared to talking face-to-face. This disinhibition also seemed to lead to sexual explicitness in texts. Many participants used text messaging as a kind of foreplay, in which they set very specific scenes to make one another sexually aroused or “horny.” Particularly noteworthy is how one participant articulated that such detailed text messaging allowed her to be more comfortable later when actually engaging in intercourse. In other words, texting about sex was almost “practice” for the event itself. Teaching young adults how to incorporate mentions of condom use within this type of text-based foreplay is one strategy to exploit the naturally occurring behavior for sexual health outcomes. Using this strategy would frame condom use as simply part of the general script of what will happen during sex, and “prime” the partner for the use of a condom when sex actually takes place. This would represent a more implicit, or indirect method of requesting and negotiating condom use, which might appeal to those who are uncomfortable explicitly discussing condoms with their partners.

We would also expect variability around the feasibility and acceptability of this more indirect strategy based on our data. One participant in particular did not see text messaging as an appropriate medium to discuss condom use. Without the fuller context of a face-to-face interaction, he did not think he could adequately express his desire to use condoms. In other words, this participant preferred to use a more direct, explicit strategy so that he could have an understanding with his partners, and did not think this was possible using text messages. Some participants agreed that they preferred to have an explicit discussion of condom use, but also saw text messages as an appropriate medium for this discussion. For those who already have high self-efficacy to negotiate safer sex, text message based negotiation skills might not be necessary, but still represent one more “tool in the toolbox” of safer sex communication.

The discourse surrounding the difficulties of text messaging to negotiate condom use was virtually indistinguishable from that of the underlying meaning of condom use within relationships. When participants were asked about barriers to using text messages for condom negotiation, responses often centered around the meaning of condom use in general, and that condoms are used in casual, but not serious, relationships. Issues typically revolved around perceptions of trust in the relationship, and the potential barrier of negative response from partners. For some, asking to use condoms signified that the asker did not trust his or her partner, or suspected that their partner might have an STI, or that their partner had cheated on their relationship. Requesting condoms also signified that the asker him or herself might have an STI, or had cheated. We concluded that issues surrounding condom negotiation using text messages were not unique to the medium of texting, but instead are familiar to condom negotiation in general.

Descriptions of what strategies participants used to negotiate condom use with text messages overlapped the strategies typically used face-to-face. Strategies focused on using a direct request, explaining consequences of not use a condom, and perhaps more rarely eroticization by incorporating the question of condoms into setting a romantic scene. The use of “codes” or euphemisms was also a strategy participants employed. Unlike face-to-face conversations, neither the importance of condom use within the context of a trusting relationship, nor pregnancy prevention were used as condom negotiation strategies.

Despite the similarity of participants’ perspectives on condom negotiation with text messages and face-to-face, there were some unique components of text messaging. Text messaging seemed to allow for easier communication with and management of multiple partners who might not be aware of each other. One benefit of text messaging, mentioned more by the men in the study, was the ability to discreetly message secondary sexual partners, even in the presence of the main partner. It is unknown if text messaging facilitates secondary partnerships that otherwise would not occur, or simply provides an alternative medium for communication with these partners. Researchers should attempt to answer this question in future work. If indeed text messaging facilitates extra partnerships, this could also be balanced out by also facilitating the use of text messaging for condom negotiation with secondary partners. Many participants discussed the different meaning behind condom use in main partnerships compared to secondary partnerships, and one participant in particular articulated the use of text messaging to ensure condom use with secondary partners, and therefore not transmit STIs to his main partner. Using text messaging to manage multiple partners also had the unique drawback of recording and saving text-based conversations in participants’ phones, which their partners might be able to access.

Text messaging was also used to request a STI/HIV test before sexual intercourse. Again, there was variability, with one participant describing a strategy of incorporating the request into the larger context of getting to know a new partner through exchanging text messages, whereas others preferred a more explicit exchange specifically about testing. The same participant who expressed reluctance to discuss condom use with text messages, preferring to have that discussion face-to-face to ensure an explicit understanding, did however endorse text messaging for requesting STI testing.

One participant clearly articulated that the ability to communicate without being face-to-face was a benefit of text messaging particularly in difficult discussions with sexual partners. She used text messaging to indicate the possibility of STI transmission to her partner. This participant might have been concerned about verbal abuse, because using text messaging meant that she didn’t “[get] yelled at.” Although only one participant articulated this potential positive aspect of texting, future interventions could incorporate texting as another tool to increase testing among exposed partners while at the same time alleviating immediate fears of negative reaction, including verbal or physical intimate partner violence.

These data should be interpreted within the context of the interviews, which took place at an STI clinic after participants had been seen by a nurse. It is perhaps surprising that so many participants highlighted the importance of condom use, given that they were ostensibly at the clinic to be seen for possible STI exposure. Issues of sexual safety might have been more

salient in participants' minds than usual, and might have increased pressures for social desirability. A limitation of the current research is the self-report nature of the data. An important goal for future researchers is to examine the relationship between sexually-related texting, "sexting," and actual sexual behavior. Additionally, new technologies are developing rapidly, and researchers should be aware of changes to normative behavior in their use. For example, although not widespread, a mobile application called "Snapchat" can be downloaded onto smartphones, which allows users to limit the amount of time a picture is available on a recipient's phone. Therefore, "sexting" photos can be automatically erased, which might limit privacy concerns.

Gaining access to participants' actual text messages would provide a clearer answer regarding prevalence of condom negotiation through text messages, and allow for examination of the longitudinal effects of sexually related texts messages on sexual behavior. For example, one ongoing project has provided 175 adolescents with BlackBerry phones configured to archive all electronic communication (text messages, emails, instant messages) for use by the researchers (Underwood, Rosen, More, Ehrenreich, & Gentsch, 2012). Although the main aim of the project is to understand emerging developmental and relational communication with peers, romantic partners, parents, authority figures, and strangers, initial coding indicates that sexual themes represented 6.6% of communication. Participants also complete yearly surveys, and forthcoming publications will hopefully provide the first examination of the impact of text messaging content on "offline" behavior, including sexual behavior.

Conclusion

We have described the potential for text messaging as a skill for condom negotiation that could be bolstered or taught to at-risk men and women. We are the first to examine text messaging as a naturally occurring behavior that might enhance condom negotiation, and to describe the nature of this behavior. Innovative interventions efforts that can better reach African American young women and men are desperately needed. Although researchers have been using these new technologies since their widespread adoption, they have typically utilized text messaging as an intervention or service delivery medium alone, as opposed to a sexually related behavioral skill that could be taught. Before we can begin to develop intervention content to capitalize on this existing behavior and introduce new skills, we must conduct this kind of research to understand how text messaging is currently being used, and its impact on behavior.

Sending sexually related messages is common among this population, perhaps because the medium is disinhibiting, text messaging is already being used for negotiation of condom use and STI testing and might be preferable to face-to-face negotiation (with some variability), and the issues surrounding text messaging for safer sex communication mirror those of face-to-face communication, especially regarding relationship aspects. Researchers in the future should seek to extend these findings by understanding the associations between text messaging behavior and sexual risk or protective behavior. This will provide the necessary foundation to inform intervention content that builds on the existing uses of text messaging and takes individual, structural, and interpersonal variables into account to increase the

occurrence and effectiveness of condom negotiation. The resulting interventions will be particularly innovative, because they could exploit text messaging as the medium of intervention delivery, while at the same time recognizing the medium as an important aspect of sexual communication in itself.

Overall, the language participants used to describe texting for sexual safety communication paralleled issues surrounding face-to-face negotiation. Perceptions of a partner's STI status after suggesting testing or condom use, arousing suspicious of "cheating," and not using condoms as a sign of the seriousness of a relationship were all cited as issues surrounding texting for sexual safety negotiation. The distinction between texting and talking was often blurred, indicating that these young adults did not see text messaging as a qualitatively different medium. Rather it is part of an overall communication strategy. As one participant explained: "texting isn't nothing just communication quietly, basically. That's all it is, communication with no talking." Feeling less shy and anxious, however, might allow for discussion of more difficult topics. The more private nature of the communication could alleviate fears of appearing sexually promiscuous to peers. Also, condom use could be integrated into the foreplay aspects of text messaging, especially for those participants who enjoy planning out exactly how the sex act will unfold. Therefore, even for those participants who did not specify that they used text messaging to negotiate safer sex, how they talked about what they like about texting reinforces the potential for this medium for sexual communication.

Acknowledgments

The authors wish to sincerely thank the young men and women who participated in this research as well as the staff at the clinic where we recruited.

Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and or publication of this article: this article was funded by center grant P30-MH52776 from the National Institute of Mental Health and by NRSA postdoctoral training grant T32-MH19985.

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