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HIV-positive Mothers' Communication About Safer Sex And STD Prevention With Their Children

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Abstract

Mothers play an important role in promoting the sexual health of their adolescent children. Fifty-seven HIV-positive mothers with adolescent children participated in an in-depth, qualitative interview regarding whether they have talked to their children about safer sex and STD prevention, including at what age they began such discussions, and what messages they gave to their children. The majority of mothers (95%) had talked with their child about safer sex; some began such discussions when the children were as young as 6 years old, but most began when the children were around 12 years old. Mothers' messages fell into the following areas: (1) protecting oneself from STDs; (2) giving factual information regarding STDs, including HIV; (3) avoiding pregnancy; (4) empowering and respecting oneself; and (5) communicating with sexual partners. The mothers' own HIV status impacted the discussions with their children. Content of mothers' messages, child reactions, and child outcomes are discussed.

Keywords

HIV+ Mothers; Adolescents; Sexual Health; Qualitative

Introduction

According to the Centers for Disease Control, 49% of ninth grade students in the United States report having had sexual intercourse; rates are even higher among African Americans (68%) and Hispanics (51%; Centers for Disease Control [CDC], 2006). About half of the estimated 19 million new STD infections reported in the U.S. each year occur in youth age 15 to 24 (CDC, 2008). While some studies indicate having an HIV-positive parent is associated with early sexual debut and greater sexual risk among their children (Lee, Lester, & Rotheram-Borus, 2002; May, Lester, Ilardi, & Rotheram-Borus, 2006), other research indicates adolescent sexual activity is not related to parental HIV status (Leonard, Gwadz, Cleland, Vekaria, & Ferns, 2008). Moreover, a previous study examining sexual behaviors of adolescents affected by maternal HIV indicates significantly fewer adolescent children of

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HIV-positive mothers engaged in sexual intercourse (30%) when compared to a general population of adolescents (46%; Murphy, Herbeck, Marelich, & Schuster, in press). Approximately half of the families in the present study (48%) also participated in the study described in Murphy et al (in press).

Parent-child communication about sex

Parents play an important role in promoting the sexual health of adolescents. Research has confirmed greater use of contraceptives, reduced likelihood of pregnancy among girls, and reduced risk of HIV transmission among youth who report discussions about sex with their parents (e.g., Diliorio, Pluhar, & Belcher, 2003). Mothers are more likely than fathers to talk with their kids about sex, and subsequently influence adolescent sexual behavior (Dutra, Miller, & Forehand, 1999), including less sexual behavior and fewer pregnancies among youth (Hutchinson & Montgomery, 2007), and fewer episodes of unprotected sex (Hutchinson, Jemmott, Jemmott, Braverman, & Fong, 2003). Adolescent perception of positive communication with their mothers is associated with delayed onset of sexual activity and lower rates of sexual behavior (O'Sullivan, Jaramillo, Moreau, & Meyer-Bahlburg, 1999).

The method and frequency with which parents communicate influences adolescent outcomes. Open and responsive discussions have been found to promote adolescents' communication with their sexual partners about sexual risk and condom use, and less sexual risk taking (e.g., Kotchick, Dorsey, Miller, & Forehand, 1999; Whitaker, Miller, May, & Levin, 1999). Higher levels of mother-daughter sexual communication has been associated with less sexual behavior and unprotected intercourse among sexually experienced females age 12 - 19 (Hutchinson et al., 2003). Martino and colleagues (2008) found greater repetition of discussions was related to adolescents feeling closer to their parents and more able to communicate about sex. DiClemente and colleagues (2001) found that less frequent parent-adolescent sex communication was associated with adolescents' failure to use contraceptives.

However, many mothers may not communicate with their children about sexual health. Maternal reluctance to communicate is associated with mothers' reported lack of knowledge, discomfort/embarrassment, and lack of self-efficacy about talking with one's child (Guilamo-Ramos, Jaccard, Dittus, & Collins, 2008). Several studies of populations disproportionately affected by HIV/AIDS indicate communication about HIV prevention was more likely if parents were informed about how to educate their child about sex and perceived their child was ready to learn about sex topics (Miller et al., 2009; Poulsen et al., 2009). The mother's sexual communication responsiveness (i.e., knowledge, comfort, skills, and confidence) was the most consistent predictor of discussions about safer sex (Miller et al., 2009).

HIV+ mothers and their children

Children whose mothers are HIV-positive often live in circumstances similar to those that placed their mothers in the line of HIV infection (e.g., poverty, violence, substance use, family disruption; Mellins, Brackis-Cott, Dolezal, & Meyer-Bahlburg, 2005). Daughters of HIV-positive mothers exhibit a high rate of early childbearing compared to national averages, and earlier sexual debut (May et al., 2006). Chabon, Futterman, and Hoffman (2001) found that almost 20% of youth treated for sexually acquired HIV had a parent living with the disease.

Several studies have explored how mothers' own experiences with HIV infection affect their communications with their children about safer sex and STD prevention. One study

comparing HIV-infected versus uninfected mothers found that the infected mothers had more discussions with their children about HIV, but did not talk more than the other mothers did about sex or drugs (O'Sullivan, Dolezal, Brackis-Cott, Traeger, & Mellins, 2005). The study found that overall, less than half of the mothers discussed safer sex topics with their 10-14 year-old adolescents. The authors speculate the low frequency of these conversations may be attributed to mothers' perceptions that their children are uncomfortable talking about these topics (O'Sullivan et al., 2005). This conclusion is supported by a qualitative study indicating adolescent and young adult children did express discomfort discussing HIV prevention, risk and transmission with their HIV-positive parent, in part due to their concern that it may upset or remind their parent of his/her HIV illness (Corona et al., 2009). While there was some discomfort, the study also found that both parents and children expressed openness and comfort sharing information. Messages conveyed included: parents encouraging their children not to make the same mistakes they made; parents drawing on the their experience with HIV (e.g., the children observed their parent's hospitalizations and fluctuating health); and discussion about safer sex and how HIV is transmitted (Corona et al., 2009).

Another study found that in comparison to HIV-negative mothers, those who were positive were more likely to discuss HIV prevention with their 13-19 year-old adolescent children, however, regardless of HIV status, mothers were more likely to discuss safer sex topics if they believed their children were sexually active (Marhefka, Mellins, Brackis-Cott, Dolezal, & Ehrhardt, 2009). This may be problematic, as research indicates safer sex communication is most effective if it occurs prior to the adolescent initiating sexual activity (Miller, Levin, Whitaker, & Xu, 1998). As described earlier, at least 49% of adolescents are sexually active by ninth grade (approximately age 14), consequently, discussions in childhood or early, rather than mid or late adolescence may be indicated.

Conceptual framework

The present study examines mother-child communication about safer sex as a means of reducing adolescent sexual risk behavior within a conceptual framework based in part on Fishbein's theory of reasoned action and Triandis' model of subjective culture (Jaccard, Dodge, & Dittus, 2002). The model proposes the behavior (i.e., adolescent sexual risk) is influenced by the adolescent's intentions, knowledge, environmental constraints, salience of behavior, and habits. The more normative pressures he/she feels to perform a behavior (e.g., using condoms), the more likely the decision to perform the behavior becomes. Jaccard et al (2002) provide an example in that for a given population [e.g., families affected by maternal HIV], parent-adolescent communication may focus on the potential dangers of contracting AIDS. However, if the adolescent perceives such dangers as irrelevant to his/her behavior, then the parental communications will have minimal impact on behavior. This model considers the source of the communication (e.g., the mother), the message being communicated, the channel through which the message is conveyed (e.g., face-to-face interaction), the audience (e.g., the child/adolescent), and the context in which the communication occurs. The model guided the present study in that these aspects (e.g., information source, messages, channels) are examined among a sample of families affected by maternal HIV. For example, mothers were asked if and how they discussed safe sex and HIV prevention with their children, using probes to elicit the context and content of these discussions and the messages they provided.

The purpose of this study was to explore if and how HIV-positive mothers communicate with their children about safer sex and STD prevention, including what role their own HIV plays in discussions. Based on the studies cited above and the lower rate of sexual intercourse in a sample of adolescents affected by maternal HIV (Murphy et al., in press), we hypothesized that the salience of mothers' HIV may reinforce the need to talk about safer

sex with their children. The study was undertaken using in-depth, qualitative interviews in order to allow the respondents to use their own words when describing if and how they talk to their children about safer sex and HIV, including what messages they provide.

Method

Participants

The Parents and Adolescents Coping Together III study (PACT III) is a continuation of two longitudinal studies (PACT and PACT II) assessing mothers with HIV/AIDS and their HIV-negative children. The original Parents And children Coping Together (PACT) study followed a sample of 135 families every six months beginning in 1997 when the children were age 6 – 11. In 2002, PACT II continued to follow 81 of the original families as the children transitioned to early and middle adolescence, and the original sample was supplemented with 37 new families, for a total of 118 families. The final study, PACT III, is now following 96 of the 118 PACT II families as the early/middle adolescents transition to late adolescence/early adulthood.

Seven of the mothers from families in PACT III have died since their participation in PACT II, and one lost custody, however, with guardian consent, their children are participating in PACT III. Of the 22 families in PACT II who are not participating in PACT III, five of the mothers died since their participation in PACT II (for a total of 12 deceased); two mothers lost custody (for a total of 3 without custody); thirteen families were out of the country or could not be located; and two families declined to participate in PACT III. Of the surviving mothers with custody who participated in PACT II (n = 103), 85.4% (n = 88) are participating in PACT III. All study participants were English or Spanish speaking. Mothers were recruited from primary care sites and AIDS service organizations in Los Angeles County. PACT III baseline interviews were conducted in 2008.

A random sample of all English-speaking mothers and two-thirds of the Spanish-speaking mothers were drawn from the full sample of 88 PACT III mothers. The full sample of Spanish-speaking mothers was not included because over half of the sample (53%) was Spanish-speaking, and the cost of transcribing and translating more than half of the interviews was prohibitive. However, the final qualitative study sample consisted of a large proportion of Spanish-speaking participants (35%, n = 20). Participants were continuously selected and interviewed until it was determined that the same themes, trends and types of responses were repeated numerous times. A total of 57 mothers were asked to participate in the qualitative interview, and all 57 signed the consent form and completed the interview. Participants did not differ from those in the larger study in terms of age, education, marital status, or child's gender. Although the majority of qualitative study participants were Latina (47%), in the full sample 62% were Latina ($p < .05$).

The mothers' race/ethnicity was 47% Latina; 35% African American; 11% White; and 7% other/multiracial. On average, mothers had completed 11.9 (SD = 6.2) years of education; mean age was 44.1 (SD = 5.6) years. Fifty-six percent of their children in the study were male; mean age was 18.1 (SD = 1.9) years; 81% of the study children were living at home with the mother.

Data collection

The Institutional Review Board at the University of California, Los Angeles, approved the study. Trained, bilingual interviewers fluent in Spanish conducted the interviews. Interviews were conducted in participant homes, lasted approximately 60 minutes, and were digitally taped and transcribed. Spanish interviews were transcribed in Spanish. The Spanish transcripts were then translated and back-translated by the Worldwide Translation Center

(WTC) in San Diego, CA. A team of three translators including a professional translator, an editor for translation and grammar accuracy, and a style editor conducted the translations.

Participants were paid $20 for participation. Respondents were asked about if and how they have talked to their children about safer sex and STD prevention, including at what age they began such discussions, and what messages they gave to their children. All questions were open-ended. Interviewers used follow-up questions and probes to explore the topics that emerged during the course of the interviews.

Data analysis

This study utilized a two-stage data analysis protocol. First, in line with traditional qualitative thematic analysis (Braun & Clarke, 2006), all transcripts were read and re-read multiple times by two members of the research team (K.J.R. & D.M.) in order to identify patterns (themes) within the data. An inductive approach was used to identify the themes: the themes emerged directly from the data rather than being preconceived by the researchers. A codebook describing these themes was created. One member of the research team (K.J.R., a Ph.D. level researcher who has been conducting qualitative research in the field of HIV/AIDS for about 15 years) then reviewed all transcripts line-by-line and noted relevant codes in the margins. All codes were then tagged to associated text segments in Ethnograph, a software program for computer-based text search and retrieval (Qualis Research Associates, Colorado, version 6.0).

In the second stage of analysis, a content analysis was undertaken in order to evaluate the prevalence of the themes across respondents and to examine how the themes varied among respondents according to respondent race/ethnicity, as well as respondents' children's genders. Specifically, Ethnograph was used to print all segments of data, for each of the respondents, for each of the key themes. Counts were then taken of how often women of different racial/ethnic backgrounds mentioned each theme, as well as how often women with male vs. female children mentioned each theme. This mixed approach allowed the key themes to emerge directly from the respondents' experiences and accounts, but also allowed for counts to determine the prevalence of the themes and the variability of themes across respondents.

Steps were taken to maximize the credibility/trustworthiness of the findings, as described in Rubin & Rubin (1995). Specifically, any discrepancies regarding coding categories were discussed by the researchers until agreement was achieved. In addition, upon hearing any inconsistencies in the respondents' stories, the interviewers further probed until clarity regarding the topic was achieved. Efforts were also made to assess how consistent themes were between respondents; percentages of respondents mentioning each theme are presented in the findings, and quotations drawn directly from the transcripts are presented to explicate each theme.

Results

Results showed that most of the HIV-positive mothers in this study had communicated about safer sex and HIV prevention with their children. This section will explore: 1) whether mothers discussed safer sex and what messages were given to the children, 2) the age of women's children when such discussions began, 3) if and how mothers' own HIV status was used in the discussions, and 4) mothers' descriptions of their children's reactions to talking about safer sex and HIV prevention.

Mother-child communication about safer sex and HIV

The overwhelming majority of mothers in this study (95%) had talked with their child about safer sex. When asked whether she had prepared her child regarding safe sex, a Latina mother of an 18-year-old son said, “We have spoken a lot about that.” Mothers mentioned that talking about these issues was an on-going process rather than having been a one-time “Big Talk.” A Latina mother of a 20-year-old son said:

> I’ve been giving him little details . . . say, the subject comes up on TV . . . We’d see a commercial on herpes, I’ll bring that up. We’ll see HPV--that little shot that girls are getting. I’ll bring that up. It's just like little chunks at a time.

Other respondents also mentioned using natural situations they encountered (e.g., a commercial about condoms, a television show featuring sexual situations) as opportunities to broach the topic of safer sex. Calm environments were another important factor mentioned. For example, one woman said she liked discussions in the car, where she and her child were more relaxed and open to talking. Another mother found neutral restaurants to be a good arena. This Latina mom of a 19-year-old daughter said, “While we ate a hamburger and I said to her . . . ’I cannot forbid you to have sex, but if you are going to do it, then use . . . a condom.’”

Overall, there was a range regarding the age respondents’ children were when such discussions began. Some women began when children were as young as six years old, others waited until age 17. There were remarkable similarities between racial/ethnic groups regarding the age of children when parent-child sex communication began. Specifically, average age of African American and Latina respondents was 12.2 and 12.6, respectively. White women began such talks slightly earlier, when their kids were 11.6 years old, while multiracial women began slightly later with an average age of 13.4 years. There were also no notable differences in the average age when parents started talking to their male vs. their female children, with parents of both genders beginning when kids were about 12 years old. Hence, most women initiated talks about sex with their kids in early adolescence, though there were individual differences, with some choosing to begin in early childhood and others waiting until late adolescence.

Not all mothers found these types of conversations to be easy. Three women had not spoken to their children about safer sex for several reasons, including discomfort (e.g., “I don’t have the courage... I don’t feel at ease”); assumption the child already knew about these matters; and a mother's belief that her son would be more comfortable talking to a male relative. .

Messages regarding safer sex and HIV

Mothers’ messages regarding safer sex and STD prevention fell into the following areas: (1) protecting oneself from STDs; (2) giving factual information regarding STDs, including HIV; (3) avoiding pregnancy; (4) empowering and respecting oneself; and (5) communicating with sexual partners. Table 1 shows how many women from each of the racial/ethnic groups reported each of these messages. Table 2 shows the prevalence of each message for mothers of sons versus mothers of daughters.

Protecting oneself—. The most common message in this area that mothers gave their children was that condoms can prevent STDs. In fact, 100% of respondents who had talked to their children about safer sex had given this message about the importance and necessity of protection to their children. The African American mother of a 15-year-old son said, “Condom is #1. Without it, you ain’t doing it!” Similarly, the Latina mother of a 19-year-old daughter said, “I tell her, when she has relations, to always use a condom.” Mothers did not use euphemisms such as “rubbers” when talking about this theme during the interviews.

Instead, they used the actual word “condom” in their responses and/or referred to condoms as “protection.” Some mothers went beyond talking about protection and actually provided their children with condoms to view and use as needed. A Latina mother of a 17-year-old son said, “I gave him condoms all the time!” A Latina mother of a 20-year-old even showed female condoms to her daughter, “They came out with those female ones and I told her about those . . . I showed it to her.” Hence, the primary message given by subjects in this study was that in order to be safe, one should simply not have sex without using a condom. The next theme focuses on the “facts” mothers gave their children about why condoms are so important.

Giving factual information—Almost two-thirds of mothers (61.1%) provided their children with factual information about STDs. More Latinas and African Americans gave their kids factual information as compared to white women (40%) and multiracial women (25%). Also, 63% of mothers of sons provided factual information as compared to 52% of mothers of daughters. Factual information often included data about assorted STDs and their prevalence rates. A Latina mother of an 18-year-old daughter explained:

> I always tell her that I just recently heard on the news that one out of every four girls who is sexually active has a sexually transmitted disease . . . I let her know all the statistics and how one person is getting infected every 15 seconds . . . it is good for her to know those things.

Some respondents highlighted that there are many different STDs, not just HIV. A Latina mother of a 17-year-old son went further than just talking about STDs—she showed her children actual photographs of human bodies infected with assorted STDs so that the children became familiar with such diseases’ symptoms. She explained:

> I took them to see the pictures, to see what it looks like . . . . To look—it is horrible to see— clean instead how it looks dirty, before/after, how it will look like if it gets infected. All of them go, “OH!” [I say,] ‘That will happen to you, if you do not take care of yourself.’

Regarding HIV, some mothers presented information regarding routes of transmission. A Latina mom of an 18-year-old daughter said, “I tell them to be careful. It's not just transmitted sexually, it is with syringes, blood transfusions.” Other mothers talked about the fact that there is no cure for HIV. Overall then, about two-thirds of the mothers gave to their children factual information, about the prevalence, symptoms, and routes of transmission of various STDs in the hope that having this information might deter their children from making unsafe choices in regard to their sexual behavior. Next, some mothers also focused on another possible ramification of unsafe sex—pregnancy.

Avoiding pregnancy—About two-fifths of mothers (37.8%) highlighted the link between sexual intercourse and pregnancy with their children. Seventy-five percent of multiracial women discussed pregnancy with their kids as compared to 38% of Latinas, 40% of white women, and 26% of African Americans. Just over a third of mothers of sons (35%) discussed this topic while 39% of mothers of daughters did so.

A Latina mother of a 19-year-old said, “I tell my son . . . sex with a woman, mostly the woman becomes pregnant.” Safer sex or delaying sexual relations as a means to avoid unwanted pregnancy was a strong message given by many mothers. Some personalized this message, indicating how they themselves had become pregnant at too young of an age, and that they did not want the same for their children. The same Latina mother quoted above said, “I was a kid with a kid . . . if you do not want to make another child suffer, wait until you are of age.” A multiracial mom of a 19-year-old son spoke of how challenging it is to be a mother, especially with a chronic disease:

> I'm tired and I feel like I'm dying, and I didn't have one minute, not one day off, whether I feel good or bad, so I don't want him to go through that-- because when you have a child, you can't take it back.

Overall, mothers emphasized that babies are forever, they are a huge responsibility, and that the smart thing to do is avoid becoming a parent at too young of an age. A Latina mother of an 18-year-old daughter concisely summarized her warnings to her children, "I always remind them, 'I do not want you to get pregnant . . . the responsibility is huge . . . ' They are not prepared yet . . . with a kid you cannot go ahead." Overall, mothers who focused on pregnancy in their communications with their children wanted to convey the message that by avoiding unsafe sex one could also avoid having an unplanned pregnancy.

Empowering and respecting oneself—Another area that about one-third (32.3%) of mothers highlighted in their talks was self-empowerment and respect. Half of all the multiracial women provided this message to their children while 27% of Latinas, 42% of African Americans, and no white women did so. Mothers of daughters were more likely to discuss empowerment with their children as compared to mothers of sons (61% vs. 10%).

An African American mother of an 18-year-old daughter said, "Respect yourself, love yourself . . . I'm trying to teach her that." Women talked about the fact that they wanted their children to realize that they had the power to make choices in life, and that they themselves were responsible for making good choices, choices that protected their health and their futures. Respondents emphasized not relying on sexual partners to do the "right thing." An African American mother of a 17-year-old daughter said, "I let her know [to] always, no matter what, wear condoms . . . . If that person you are intimate with doesn't want to use it, that shouldn't be a relationship." A Latina mother of a 17-year-old daughter said she tried to reinforce the following ideas with her child:

> To take care of herself and not depend on men to care for her. To be self-supporting and be independent and not to depend on the other person to protect her from a sexually transmitted disease, but to take her own stand and initiative, as far as using a condom and talking about it . . . her being responsible.

Overall, women who focused on this theme with their children believed that having a strong sense of self worth and respect and feeling powerful enough to make healthy choices for oneself were of key importance in being able to protect oneself from sexually transmitted diseases. And, many more mothers of daughters than mothers of sons emphasized this theme with their children. Talking with sexual partners was another key point for many moms and will be discussed next.

Communicating with sexual partners—About one-fifth of mothers (20.3%) discussed communicating with sexual partners, including the importance of getting to know a potential sexual partner's life and sexual history before engaging in sexual relations. Forty-two percent of African Americans and 12% of Latinas provided this message while no white or multiracial women did so. Over one-third of mothers of daughters focused on sexual communication while only 10% of mothers of sons did so. An African American mother of a 17-year-old daughter said:

> Don't have sex right away with somebody when you meet him. Sit down and talk to them. Ask them how they feel about HIV and AIDS . . . . And, who are their past relationships? Who were these people? How long did you know these people? Did you have what's called 'raw sex' with them? No condoms? And why did you break up? And have you gone with one person or three or four people? You want to know what you want to know.

Mothers recommended that they communicate with their sexual partners about getting tested for STDs before engaging in any unprotected sex. An important message here was that relying solely on how "clean" or attractive a person looked on the outside as the basis for whether or not to have sex could be a deadly mistake. An African American respondent reported telling her 15-year-old son, "You cannot go around here having unprotected sex with anybody and everybody . . . just because they look good. Looks can be deceiving." Another precaution that mothers gave their children was that it is important to realize sexual partners do not always tell the truth. An African American mother told her 16-year-old daughter, "Do not put your faith in people because they will break you and lie." About one-fifth of mothers focused on sexual communication with potential partners as a strategy for STD and pregnancy prevention, including being up front with partners about sexual history and testing for STDs.

Mothers' own experiences of HIV

Overall, 61% of women used their own experience of being infected with HIV when discussing safer sex with their kids. There was limited racial/ethnic variability here, with 63% of African Americans, 58% of Latinas, 60% of white, and 75% of multiracial women using their own diagnosis when talking to their offspring. More respondents with male children as compared to female children used their own experiences of HIV in their talks (64% vs. 36%).

Respondents reported that their own experience of living with HIV affected if and how they talked to their children, both in recognizing the importance of talking to their children, but also doing so repeatedly. Respondents talked about how issues like HIV are not "real" to many people in the U.S., yet were strikingly real for them and their families. An African American mother of a 20-year-old son said:

> If I wasn't HIV positive, I probably wouldn't have thought about it as much or . . . focused about it as much . . . . If you're not dealing with that situation—a lot of parents probably don't . . . put that much effort into the sexual part.

Some women thought they likely would never have talked to their kids about HIV prevention had they themselves not been infected. A Latina mother of a 19-year-old daughter explained:

> I think I never would have tried. I would not have talked to them about sex. I would not have talked to them about their boyfriends and stuff. With this disease, I had the chance to know more and also learn more about how one should treat one's kids during their puberty. In other words, I lost the fear of talking to them about sex.

Women also used their own experience as an "example." The basic message here was— "If it happened to me, it can happen to you." An African American mother of a 15-year-old son said, "See how mama is--you don't want to—I ain't want to scare you, but look!" Respondents also used themselves as an example of the message that one can never tell, simply by looking at a person, who might be infected. An African American mom of a 16-year-old daughter warned, "Don't ever think that you know who you think you know because we don't . . . . Do I look sick? No!"

Many mothers believed that their children having been witnesses to the deleterious disease that is HIV served as an effective deterrent for unsafe sexual behavior. A Latina mom of a 19-year-old said, "He seen me sick. He's seen me in the hospital. He's seen all the pills I've got to take . . . so, he knows . . . he knows." Some respondents reported that simply living in the same house and being a witness to the many challenges of HIV was enough to encourage their children to protect themselves. A multiracial mom of a 17-year-old daughter explained:

> All she has to do is just sit back and watch me . . . the doctors' appointments and the illnesses and the medications and the worrying. She could see that . . . . that in itself is a lesson for her. She doesn't want to have to go through [it too].

Thus, for the majority of mothers, their own experience of having been diagnosed with HIV and having to live with HIV as a chronic disease ever since were strong components of their discussions with their children about safer sex and STDs. Mothers used themselves as an example in the hope that their children might avoid a similar fate.

Children's reactions to mother-child communication

Thirty mothers spontaneously discussed their children's reactions to their communications about safer sex and HIV during the interviews. These mothers reported a range of emotional and behavioral reactions, with 15 reporting negative reactions, 13 reporting positive reactions, and two reporting mixed reactions. Negative emotional reactions including discomfort, embarrassment, repulsion, anger, and fear. A Latina mom of a 21-year-old son said, "They get embarrassed. They are embarrassed more than I am, so they always tell me, 'Be quiet, be quiet.'" A white mother of a 22-year-old son disclosed that she was worried that all her communications over the years with her son regarding safer sex and STDs may have left him so fearful that he was unable to establish intimate relationships. She said:

> He's always constantly complaining that all his friends have girlfriends but he doesn't. I don't even know that he's ever had a date . . . . I wonder if I put too much fear in him? For years, I was constantly talking about STDs and warts, gonorrhea . . . maybe I overly talked about it.

At the positive end of the emotional reaction spectrum, mothers reported children reacted with interest and appeared afterward to be knowledgeable, confident, and empowered. These children became comfortable and open to talking about these matters, as evidenced by how they felt free to disclose the fact that they are sexually active or to ask mothers personal, sex-related questions. A Latina mother stated she and her 18-year-old daughter have a lot of trust and communication about sex with each other. She said, "When she had her first relationship, she came to me and told me, 'Mom, I want to have sex.'"

In regard to behavioral reactions, on the negative side, mothers lamented that their children simply had not listened or gotten their messages regarding safer sex and STDs. For example, several women reported that their children had already had babies themselves. An African American respondent with a 16-year-old daughter said, "I guess one of them wasn't listening because I have a grandson." Some respondents also reported that their children were definitely sexually active, and engaging in unsafe sex. An African American mother of a 15-year-old son said, "He's sexually active . . . against my will . . . He is not listening . . . He has me . . . scared . . . . He got busted having unprotected sex." Such unprotected sex was not without STD consequences for respondents' children. A white mother of a 22-year-old daughter lamented:

> I thought she'd always practiced safe sex but apparently she didn't because otherwise she wouldn't have HPV . . . . So, evidently, somewhere she's had unprotected sex. As much as I'd preached about it, you'd think she wouldn't have. I'd talked to her about it.

Some respondents said their children were sexually at risk, that they had not gotten their mothers' messages. A Latina mom of a 19-year-old daughter said, "[child's name] is a . . . promiscuous girl . . . My daughters . . . did not understand me...did not get the message. I talked...if they did not pay attention to me, then it was on them."

On the positive side, mothers reported that their children had chosen to be abstinent (one mother even reported that her daughter had requested a “purity ring” she could wear to symbolize this). Others reported that though their children were likely sexually active, they engaged in protected relations (respondents talked about finding condoms among the children's belongings). Several mothers also suggested that their child was the “go-to” person among the child's peers for questions about safer sex and that their children were even known to be a provider of condoms to others. A white mother of a 17-year-old daughter said, “There was a program . . . they give out free condoms and she come home with a whole bag of condoms and said, “Here, mommy, use these . . . ” She was like, “I . . . give them away to my friends.”

Two mothers reported mixed reactions for their children. A multiracial mother of a 19-year-old son reported that while her son was embarrassed by her talk (“Oh, Mom! You embarrass [me]”) she did believe that he used condoms for sex. She stated, “I found a condom [while] cleaning his trunk.” The other mother, a white mom of a 22-year-old son, said her son would laugh at her or look away when she tried to discuss safer sex with him and “never take too much of an interest.” However, she found condoms among his belongings. She said, “I did recently find a condom in his coat pocket... at least he's carrying one.” This theme highlights that there is no one standard reaction among children to mothers’ discussions of safer sex and HIV prevention. Some children reacted positively to such talks with their mothers while others had negative or mixed reactions.

Discussion

This study explored HIV-positive mothers’ communications with their children about safer sex and STD prevention, including how a mother's own HIV status factors into communication. The study adds to existing literature by providing more information regarding the timing, breadth and specific content of sex-related topics being discussed among ethnic minority families affected by maternal HIV.

Previous research indicates that overall, a fairly large proportion of mothers do not engaged in sexual communication with their adolescent children, although HIV-positive mothers address HIV issues more frequently compared to mothers without HIV (O'Sullivan et al., 2005). In contrast, our study findings showed that the overwhelming majority of HIV-positive mothers had talked to their children about a range of sexual health matters. The majority of mothers began discussions when their children were around 12 years of age, although some of the children were as old as 17 when such discussions began. The adolescent years may not be the most effective time to begin communicating with one's children about safer sex and STD prevention. The national “Parents Speak Up” campaign endorses beginning such conversations as early as age six and continuing through the teen years (U.S. Department of Health and Human Services, 2007). It also recommends parents communicate often. Many women in this study endorsed this “more is better” approach to sex communication with their kids by “naturalizing” such discussions and having many mini-talks precipitated by natural cues in the environment. However, there were also concerns among the respondents about possible negative ramifications on their child of too much pushing of prevention communication.

Similar to a study by Usher-Seriki, Bynum, & Callands (2008), the content of messages conveyed by the mothers in this study involved negative consequences of unprotected sex, sexually transmitted diseases and birth control. Usher-Seriki et al. (2008) found that more frequent communication about these general sexual topics predicted an increased likelihood that adolescents were sexually active, and conversations specific to sexual values (e.g., negative impact of teen pregnancy), were linked to a decreased likelihood of sexual activity.

Both types of messages were conveyed in the present study, although sexual values emerged as a topic of empowering and respecting oneself, and making informed, proactive and positive choices.

Discussions of empowerment in the present study are in contrast with previous research which suggests when parents engage in communication with their children about sexuality, the conversations tend to focus on physical development and sexual safety rather than psychological, relationship-based or personal topics (Rosenthal & Collis, 1997). Messages of empowerment, respect and communication were more frequently discussed in African American families and directed towards daughters. These messages may derive from the mother's personal experience with HIV, stigma, and efforts to respond in a positive and proactive way to related challenges they have encountered. Although people living with HIV may feel stigmatized, and struggle to keep from internalizing these feelings, many go through a complex emotional process, from initial feelings of shock, despair, shame, and grief, to an eventual acceptance and understanding that there remains much to live for (Ogden & Nyblade, 2005). These inspiring and empowering messages, and the importance of communicating with sexual partners, may be especially salient for HIV-positive mothers to convey to their daughters.

Similar to a study by Corona et al. (2009), many of the women in this study reported their own experience of living with HIV shaped their conversations with their child, and some used themselves as an “example.” Contrary to previous findings (Corona et al., 2009), our findings suggest some mothers would not have discussed sexual topics/safer sex with their children had it not been for their experience with HIV illness. This pattern was also observed for parent-child discussions on tobacco use (but not alcohol use); parents who smoke cigarettes tended to communicate more with their children about smoking, specifically discussing rules and discipline pertaining to tobacco use (Ennett, Bauman, Foshee, Pemberton, & Hicks, 2001).

This study also showed that, even when a mother is infected with HIV, discussions about safer sex and HIV are not a “sure thing” for parents and youth. There remained mothers who had not talked to their children about these matters due to embarrassment or believing there was not a need to do so, despite their own experience. Raffaelli, Bogenschneider, and Flood (1998) found that sexual communication was more likely to occur in families that had at least one good talk about the adolescent's personal problems. Such discussions could provide opportunities for parents and adolescents to gain confidence discussing sensitive topics, so that they will be less anxious and embarrassed with more sensitive topics such as sexuality and safe sex.

Research shows that interventions can be helpful in providing parents the skills and impetus to communicate with their children about sexual health (Schuster et al., 2008; Villarruel, Cherry, Cabriales, Ronis, & Zhou, 2008). Because children of HIV-positive mothers often live in similar circumstances that contributed to their mothers becoming infected, such interventions may be relevant to their children. Although only 5% of mothers did not discuss safer sex with their children, many of the mothers spontaneously reported negative reactions to their prevention messages from their children. Some mothers expressed concern that their children did not listen, and some questioned how effectively they conveyed their messages. Consequently, interventions could focus on communicating in effective ways to maximize positive outcomes for the youths.

Mothers in this study had messages for their children that were of a factual nature, such as statistics regarding STDs in the U.S., and routes of transmission for HIV. The most common message they gave was to use condoms. While this message is important and helpful, it does

not cover the many nuances of safety and risk (e.g., some STDs can be transmitted between partners even while using a condom; people can get STDs even without engaging in sexual intercourse). Future research might explore just what are the best ways to provide children with such intricate facts, and how to provide such facts in a way that does not induce the youth to become overly anxious or fearful.

Some respondents in this study believed that their talking to their children about safer sex and HIV prevention had been truly helpful---that their kids had not only listened but had taken steps to act on the information, such as by being abstinent or always carrying condoms. Other respondents reported the extreme opposite—that, despite their best efforts, their children were having unsafe sex, as well as unplanned pregnancies and STD infections. It is possible that one message that mothers inadvertently communicated to the adolescents is that HIV is not so negative anymore now that treatment is available—as many of these mothers remain healthy through taking antiretrovirals and appear very healthy. In fact, some used their own appearance as a way of communicating that you can't always tell about a person's HIV status. Some adolescent may interpret this as a reason not to worry so much about getting infected.

All of these areas are fascinating for future research—what leads to negative as opposed to positive outcomes for youths? What exactly is the effect of maternal communications, and do some types of communications lead to better results than others? In addition, future research could aim to discern just what is the optimal amount of sex communication to have with one's child and whether this may vary with different population sub-groups. Talking about sexual health is challenging for many parents. For HIV-positive mothers, doing so may help prevent the next generation from being exposed to and living with the perils of HIV and other STDs, as well as avoiding unplanned pregnancy.

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Table 1

Percentages of Women in Each Racial/Ethnic Group Reporting Each Safer Sex Message (N = 54)

	***n* (%)**			
	Latina (*n* = 26)	**African American (*n* = 19)**	**White (*n* = 5)**	**Multiracial (*n* = 4)**
Protecting oneself	26 (100%)	19 (100%)	5 (100%)	4 (100%)
Giving factual information	18 (69%)	12 (63%)	2 (40%)	1 (25%)
Avoiding pregnancy	10 (38%)	5 (26%)	2 (40%)	3 (75%)
Empowering/respecting oneself	7 (27%)	8 (42%)	0 (0%)	2 (50%)
Communicating with sexual partners	3 (12%)	8 (42%)	0 (0%)	0 (0%)

Table 2

Percentages of Mothers of Sons Vs. Mothers of Daughters Reporting Each Safer Sex Message (N = 54)

	***n* (%)**	
	Mothers of Sons (*n* = 31)	**Mothers of Daughters (*n* = 23)**
Protecting oneself	31 (100%)	23 (100%)
Giving factual information	21 (68%)	12 (52%)
Avoiding pregnancy	11 (35%)	9 (39%)
Empowering/respecting oneself	3 (10%)	14 (61%)
Communicating with sexual partners	3 (10%)	8 (35%)