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## Jamaican Mothers' Influences of Adolescent Girls' Sexual Beliefs and Behaviors

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### Abstract

**Purpose**—The purpose of this study was to identify the ways in which urban Jamaican mothers influence their adolescent daughters' sexual beliefs and behaviors in order to incorporate them into the design of a family-based human immunodeficiency virus (HIV) risk reduction intervention program.

**Design**—Focus groups were conducted with 46 14- to 18-year-old adolescent girls and 30 mothers or female guardians of adolescent girls recruited from community-based organizations in and around Kingston and St. Andrew, Jamaica. Separate focus groups were held with mothers and daughters; each included 6 to 10 participants. Focus group sessions were scripted, led by teams that included trained Jamaican and American facilitators and note-takers, and audio-taped to ensure data accuracy. Data were analyzed using qualitative content analysis.

**Findings**—Four major maternal influences were identified: mother-daughter relationship quality, mother-daughter sexual communication, monitoring or supervision, and maternal sexual role modeling. Mothers' and daughters' reports were consistent; both groups identified positive and negative influences within each category.

**Conclusions**—Some maternal influences were positive and health promoting; others were negative and promoted unsafe sexual activity and risk for HIV and other sexually transmitted infections. These influences were incorporated into the design of a culture-specific family-based HIV risk reduction intervention tailored to the needs of urban Jamaican adolescent girls and their mothers.

**Clinical Relevance**—In order to be effective, family-based HIV risk reduction interventions should be theory based and tailored to the target audience. The four maternal influences identified in this formative study were incorporated into the subsequent intervention design.

### Keywords

HIV prevention; maternal influences; adolescents; sexual risk; focus groups

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Worldwide, more than 33 million people are currently living with human immunodeficiency virus-acquired immunodeficiency syndrome (HIV/AIDS; UNAIDS, 2010). The Caribbean region has an adult HIV/AIDS prevalence rate of approximately 1%; only sub-Saharan Africa's prevalence rate (5%) is higher (UNAIDS, 2010). Within Jamaica, the seroprevalence rate is estimated to be 1.6% island wide (USAID/Jamaica, 2011). Higher rates are reported among paid sex workers (9%–20%) and men who report having sex with men (32%; UNAIDS, 2010). Rates also vary regionally, with the highest HIV/AIDS rates found in the north coast tourist regions and in and around the capital, Kingston, on the south coast (Figueroa, 2004). Jamaican adolescent and young adult women are at particularly high risk for HIV infection. A World Bank (2001) report asserted that prevention of sexual HIV transmission in young people should be the primary focus of HIV prevention campaigns in the Caribbean.

### Background

HIV has moved into younger segments of the population in Jamaica and the Caribbean region as a whole (Olukoga, 2004; World Bank, 2001). Smikle, Dowe, Hylton-Kong, Williams, and Baum (2000) studied 165 adolescents (ages 14–19 years) and found repeated episodes of sexually transmitted infections (STIs) in 33% and coinfection with HIV in 1.2%. Despite these numbers, a majority of Caribbean and Jamaican students do not worry about contracting HIV from their sexual behaviors (Hope Enterprise Limited, 2008; USAID/Jamaica, 2011).

As is the case in the Caribbean and sub-Saharan Africa, transmission of HIV occurs primarily through heterosexual contact in Jamaica (Camara, 2000), and more than half of those infected are women or girls (UNAIDS, 2010; USAID/Jamaica, 2011). Gender disparities in HIV rates are particularly evident among youth. Jamaican adolescent females are two to three times more likely to be infected than their male peers (Olukoga, 2004; USAID/Jamaica, 2011). The sexual risk behaviors that place Jamaican adolescent girls at risk for HIV include young age at first sex, multiple sexual partners, transactional sex with older male partners, alcohol and marijuana use, and low rates of condom use (Chevannes, 2001; Figueroa, 2004; Kempadoo & Dunn, 2001; Norman & Uche, 2002; Smikle et al., 2000; Stallworth et al., 2004; USAID/Jamaica, 2011). However, sexual risk does not occur within a vacuum. In addition to individual behaviors, numerous social and cultural factors contribute to HIV risk among Jamaican girls, including poverty, social norms, gender roles, and lack of gender power within relationships with men (Chevannes, 2001; Ekundayo et al., 2007; Figueroa, 2004; Olukoga, 2004; USAID/Jamaica, 2011; Wood, Hutchinson, Kahwa, Hewitt, & Waldron, 2011).

## Family and Parental Influences of Adolescent Sexual Risk

In addition to distal sociocultural influences, one of the most proximal and important external influences of adolescent sexual risk may be the family. U.S. studies have demonstrated that parents exert significant influence on adolescent sexual risk-related beliefs and behaviors through parenting behaviors such as supervision or monitoring (DiClemente et al., 2001; Li et al., 2002), and parent-child sexual communication (Dilorio, McCarty, Denzmore, & Landis, 2007; Eisenberg, Sieving, Bearinger, Swain, & Resnick, 2006; Guilamo-Ramos, Jaccard, Dittus, & Collins, 2008; Hutchinson, Jemmott, Jemmott, Braverman, & Fong, 2003). Parents, particularly mothers, are widely acknowledged to be the primary sexual educators and socializing agents of children (Hutchinson, 2007; Hutchinson & Cederbaum, 2011; Hutchinson et al., 2003; Hutchinson & Montgomery, 2007). As such, parents are a potential target for interventions to reduce adolescent sexual risk taking (Hutchinson, 2007). However, little is known about whether or how these parenting influences operate outside of the United States, and no studies have examined family influences of adolescent sexual risk in Jamaica. In order to develop effective family interventions to reduce Jamaican adolescent girls' sexual risk taking, it is first necessary to understand how Jamaican mothers influence their daughters' sexual risk beliefs and behaviors.

## Theoretical Approach

The study was informed by the Theory of Planned Behavior (TPB; Ajzen, 1991) and the Parental Expansion of the TPB (PETPB; Hutchinson & Wood, 2007). Within the TPB, behavioral, normative, and control beliefs are viewed as the sole determinants of intentions, which, in turn, determine behaviors; all other factors are viewed as external influences that act through their influence on one of these three constructs (Jemmott, Jemmott, & Hutchinson, 2001). The PETPB acknowledges that adolescents are significantly influenced by the family system, particularly by parenting behaviors such as relationship quality, parent-child sexual communication and supervision or monitoring. Further, the PETPB posits that family interventions that improve these parenting behaviors may indirectly influence adolescents' sexual risk beliefs and behaviors, thus reducing their risk for HIV and other STIs (Hutchinson & Wood, 2007).

Both of these models assert that behavior change interventions should be tailored to a specific cultural group based on elicitation research that identifies which influences are most salient and how they operate within the population (Fishbein, 2000; Jemmott et al., 2001). HIV prevention programs are more likely to be effective if they are theory based, culture specific (Fishbein, 2000; Jemmott et al., 2001), and address multiple targets that influence sexual risk behaviors (DiClemente & Wingood, 2000; Pequegnat & Szapocznik, 2000). An earlier study with Jamaican adolescents, parents, and guidance counselors found that mothers were one of the most influential people in adolescents' lives, particularly adolescent girls (Hutchinson et al., 2007). Prior to developing a theory-based, culturally appropriate, HIV risk reduction intervention for Jamaican adolescent girls and their mothers, it was first necessary to understand how mothers influenced daughters' sexual risk taking. Thus, the purpose of this study was to examine how mothers influence their adolescent daughters' HIV-related sexual risk beliefs and behaviors, from the perspectives of both mothers and daughters.

## Methodology

This study represented the first phase (formative elicitation research phase) of a 4-year project. The study findings subsequently guided the development of a family-based HIV risk reduction intervention for urban adolescent Jamaican girls and their mothers that was

evaluated through a randomized controlled trial. Approvals were obtained from the New York University Committee on Activities Involving Human Subjects, the Ethics Committee of the Faculty of Medical Sciences, University of the West Indies (UWI), and the University of Pennsylvania Institutional Review Board prior to data collection.

### Data Collection Procedures

Data were collected using focus groups (Krueger & Casey, 2000; Morrison-Beedy, Cote-Arsenault, & Feinstein, 2001). Focus group sessions were held at community-based organizations (CBOs) and at the UWI School of Nursing, Mona Campus, between April and July 2008, and lasted approximately 1 to 2 hr. Adult participants provided written informed consent for their participation; adolescents provided written informed assent and parental consent. Adults received gift cards worth \$US10 to reimburse them for their time and effort, while teens received phone cards worth \$US5.

Adolescent girls and the mothers of adolescent girls participated in separate focus groups. Confidentiality procedures were outlined and group rules were created by the participants with assistance from the focus group facilitators. Each focus group included two facilitators (one Jamaican and one American) and two note takers (one Jamaican and one American); all sessions were audio-taped. These procedures were critical to ensuring that participants were understood, as it was sometimes difficult for American investigators to understand the slang or vernacular English (patois) spoken by some of the participants (<http://www.speakjamaican.com/glossary/>).

### Focus Group Guides

Semi-structured focus group guides were used and organized around the key theoretical constructs from the PETPB model (Hutchinson & Wood, 2007). Focus group guides included open-ended questions (e.g., “What kinds of things do mothers do that influence their daughters and whether they are having sex?” and “What are some good things/bad things that could happen if mothers talk to their daughters about sex?”) and prompts (e.g., “Tell me more about that”; “What is that like?”; “Any other thoughts?”) to identify and explore whether and how mothers influenced daughters and their HIV-related sexual risk beliefs and behaviors. Participants also completed brief demographic questionnaires.

### Participants

Inclusion criteria for adolescent girls were self-identify as Jamaican; age of 14 to 18 years; reside in Kingston, St. Andrew, or St. Catherine, Jamaica; and able to speak, read, and understand English. The inclusion criteria for mothers were self-identify as Jamaican; primary (co-residential) female caregiver for a girl 14 to 18 years of age; and able to speak, read, and understand English. An inclusive definition of “mother”—primary female caregiver with whom the girl resided—was used. Participants were recruited from eight CBOs in different communities in order to maximize the geographic and socio-economic variation in the sample (Sandelowski, 2000). A total of 46 girls and 30 mothers of adolescent girls participated in adolescent or adult focus groups. Participants were not required to enroll as mother-daughter dyads; some mothers participated without their daughters and vice versa.

Adolescent participants ranged in age from 14 to 18 (mean = 16.4) years; female guardians or mothers ranged in age from 30 to 52 (mean = 39.0) years. Forty percent of female guardians or mothers were employed full-time; 44% of the mothers attended church at least once per week.

## Qualitative Data Analysis

Audiotapes were transcribed verbatim. Note takers' notes and observations of nonverbal behaviors within the focus group sessions were incorporated into the data. Consistent with the qualitative descriptive approach, qualitative data were coded, sorted, categorized, and organized to "best fit" (Sandelowski, 2000, p. 339) the data and present them in a meaningful and relevant way. Transcripts were initially read through by two investigators completely in order to gain a sense of the whole (Hseih & Shannon, 2005); these two investigators then coded the data independently. Meetings of American and Jamaican investigators were held during which Jamaican investigators interpreted and agreed upon the meaning of any patois phrases that were included in the transcripts. The processes and results of data coding and categorizations were also discussed and agreed upon at co-investigator meetings.

The co-investigators' review and agreement of data coding contributed to the auditability and confirmability of the analyses (Beck, 1993; Sandelowski, 1986) and the trustworthiness of the results (Sandelowski, 2000). Credibility (Beck, 1993) was further established by receiving consistent responses from mothers and adolescents, and by validating the study findings with CBO leaders and youth and adult members of our community advisory board.

## Results

Both mothers and daughters identified maternal influences in four areas: mother-daughter relationship and communication quality, sexual communication, monitoring, and sexual role modeling. Within each category, mothers and daughters identified both positive and negative aspects. Verbatim quotes are presented in the following sections whenever possible; patois phrases were reworded into traditional English only when absolutely necessary for understanding.

### Relationship Closeness and Quality

Both mothers and daughters described the importance and potential influence of mother-daughter relationships. Mothers offered the following thoughts: "it [talking with daughter about sex] becomes easier when they have a good relationship and understand each other"; "[need to] bring us closer together and build trust. You'd have more trust in and you not 'fraid to come to me"; "Some daughters feel insecure about how parents feel about them; allow daughters to feel loved"; "LOVE THEM! [emphasis]. Sometimes girls go to men for love they don't get at home"; "If the girls are lacking attention at home, they tend to go outside to whoever they can get attention from"; "Listen to your daughter"; and "Be a best friend to your daughter."

Daughters voiced similar comments about the positive effects of close mother-daughter relationships. Examples included, "Having a close relationship to your parents makes it easier to talk to your mother about sex." In contrast, several girls offered concerns about negative mother-daughter relationships such as, "Some children is afraid of their parents abusing them."

In summary, mother-daughter closeness had the potential to confer protective effects, while distant or abusive relationships were thought to encourage girls to seek out men for affection, thus creating the potential for sexual risk. Relationship quality was also seen as important to other maternal influences, particularly mother-daughter sexual communication.

## Sexual Communication

**Mothers' reports**—A small number of mothers reported having extensive discussions with daughters about sex and prevention of HIV. These mothers tended to also report being very close with daughters and comfortable talking to daughters “about anything.” For example, “Nothing is hard for me to talk to my 14- year-old about”; and “We share a mother daughter relationship.”

Most mothers referred to sexual communication with daughters as a positive thing to do that had protective effects. For example, “We can protect her from making the wrong decision. Encourage her not to have sex”; “I wouldn't want my daughter to hear about it from somebody else, I would rather be the first person to tell her about it.” Mothers identified numerous positive outcomes, including “Less teenage pregnancy, less STIs. They will understand more what caution to take” and “They are able to focus, finish school and fulfill their life dream.”

A few mothers voiced concerns that sexual communication with daughters could “backfire” and inspire daughters to have sex. One mother offered, “She can get carried away with the wrong ideas and get involved too soon.” Many of the other mothers indicated that some parents do not view this type of communication as “proper.” A typical quote included “Some mothers don't think it right if talk to them children about sex.” Another mother offered:

Most Christian parents bury them head under the sand when it comes to sex ... not my child because she go to church. But they don't know in between school them skip class. Some of those parents take it real hard when they find out them pregnant.

**Daughters' reports**—Daughters identified many positive outcomes of mother-daughter sexual communication. Examples included: “Mothers been through similar situations”; “[When you are close to your mother, you] feel like you have a good friend you can speak to”; “She'll tell you what is right from wrong”; and “[Girls will] know some consequences so they know when to say no.” However, some daughters commented on possible problems that could result if they tried to talk with their mothers about sexual topics. For example, “She would get angry...”; “We are afraid to talk”; and “She would think I am sexually active and start accusing me.”

Both mothers and adolescent girls spoke of positive outcomes from mother-daughter sexual communication. However, a few mothers expressed concerns about potential negative consequences. In addition, barriers to sexual communication were identified. “Christian” parents were reported to be opposed to such communication, while some adolescent girls voiced concerns that mothers could react negatively if their daughters asked about sexual topics.

## Monitoring and Supervision

**Mothers' perspectives**—Most mothers agreed that monitoring their adolescent daughters was important and necessary. For example, “It's important for mothers to know where daughters are” and “Unsupervision [sic] and things like that give the teenagers a whole heap a time to do what they want to do.” However, some mothers voiced concerns that their daughters resented being supervised or monitored. As one participant noted, “They would say you don't trust them and you don't have no confidence in them.” Another added, “Some teenager[s] are very rebellious and them no want you to keep no track of them; they want to just have them own time and do them own thing.” A third respondent cautioned, “If they do know that you are monitoring them, they deliberately do what they want to do to spite you.”

Other mothers indicated their agreement with these types of statements with affirmations and nodding

**Daughters' perspectives**—Most of the daughters spoke of maternal supervision in a positive light. Many pointed out the benefits of monitoring; some reported that when their mothers called and “checked on them,” it made them feel safe or loved. Examples included: “When your mom speak to you [on the phone], feel more protective so you don’t care what dem want”; “When you feel left out right there and then you mother call you and you feel a sense of warmth”; and “You feel special. You feel loved. You feel a state of belonging....”

Several daughters pointed out negative aspects to having their mothers “keep track” of them. For example, one participant stated, “Some mothers are overprotective (keep calling continuously telling you to come home).” Others echoed this sentiment with nodding, laughing, and exclamations. Another adolescent offered, “[Some] mothers wrongfully accusing daughters based on what others say.” In response, another participant cautioned, “Continuous accusations lead some girls to just do it.”

While both mothers and daughters made reference to positive outcomes from parental monitoring, insights were also provided regarding the potential for backlash on the part of daughters. In short, parental supervision was well regarded and well received when it was balanced and emanated from a focus on love and caring rather than distrust and accusation.

### Sexual Role Modeling

Both mothers and daughters described mothers' personal conduct and other actions as important influences of daughters' sexual attitudes and behaviors. Although, at first, this type of influence seemed akin to nonverbal communication, after further exploration, it became clear that there was more to it than that. What was later labeled as “maternal sexual role modeling” (MSRM) included a wide variety of behaviors and nonverbal messages. Some were seen as positive and protective; others were seen as negative examples that could promote sexual risk taking in daughters. Examples of MSRM ranged from mothers acting with either power or deference in their own relationships with men, to engaging in transactional sexual relationships with men, and further to include encouraging daughters to pursue relationships with men who have money. However, while some examples of positive role modeling were offered in the first person (e.g., “I do this”), all of the examples of negative role modeling were made in relation to other families and other mothers (e.g., “some mothers”). Negative role modeling comments did not refer to the participants' own families.

**Mothers' perspectives**—How mothers conducted themselves in their personal relationships with men was seen as important. Positive examples of personal conduct included “I live a lifestyle where my daughter doesn't see me bringing men home and I expect you [her daughter] to do the same.” An example of strength in interactions with men included: When a man was bothering my daughter, she came in and said, “Mommy I can't walk in peace because of this guy.” I went and said, “I have nothing with you but me a ask you fi leave her alone you have me fi contend with cause me no back from nothing.”

Numerous examples of negative role modeling were also provided in terms of personal dress, lifestyle and sexual conduct. Quotes included: “The way the mothers dress, it has an impact on the daughters and the daughters them dress that way”; and “If the mother is living in a garrison community in the ghetto, you have mothers who dress a certain way and act a certain way.” Exposing daughters to their mothers' sexual behavior was seen as a negative influence. Typical quotes included: “They will have one, two, three male partners coming to the house”; and “Mother and daughter sometime sleeping in the same bed with partner.”

Another participant offered, “Daughters will hear people talk stuff about their mother so they say it is ok for my mother to do this so I can go ahead and do that.” These comments often generated affirmative utterances, nodding in agreement and disapproving head shaking from other group members.

Some participants also alluded to the negative influence of hypocrisy, when mothers behaved one way yet expected different behaviors from their daughters. For example: I know this mother goes to party all night; she has three girls in the house and every weekend she gone. You know they look at the mother and say, “Mommy you think you can run our life when we reach 15 and tell us we can’t go a dance and every night you gone and left.”

The most extreme examples of negative maternal sexual role modeling that were offered involved “some mothers” encouraging daughters to have transactional sexual relationships with men. Typical quotes included the following: “Instead of talking about how to protect yourself from sex, mothers teach their daughters what to look for in men and how to trick men”; and “Sometimes the mother will tell the daughter to go look for a man, a man with money.” These relationships might have benefited the child or the whole family. As one participant explained, “Some [mothers] encourage daughters to have sex for things such as food, books, clothes, lunch money; sometimes he takes care of mother and daughter or the whole house.”

**Daughters’ perspectives**—Similar to the adult participants, adolescent girls described “how mothers act” as being very influential. Nearly all of the girls provided examples of things mothers do (their own mothers and other girls’ mothers). Some examples were seen as positive, while others were viewed as negative and encouraging adolescent sexual risk behavior. Again, the notion of hypocrisy occurred often: “Do what I say but not what I do.”

Girls identified important influences in terms of mothers’ personal appearance and conduct. Most of the personal appearance comments focused on positive examples: “Mother wearing modest clothes”; “The way she present herself”; and “The type of music she listen to—she must listen to soul and gospels and some reggae, even dancehall but not all.” In contrast, negative examples were provided when adolescent girls discussed how exposure to mothers’ sexual conduct influenced daughters. Typical comments included: “Sometimes [mothers are] watching porn and not hide it”; “Some mothers do [sexual] things they shouldn’t in front of children”; and “Mothers talk on the phone and tell their friends about what they were doing last night, and did it good, and on and on.” In addition, mothers who did not provide daughters with any context for their behavior were seen as compounding the problem. In some cases, the mother’s sexual behavior might be more appropriate for an adult than a teen; in other cases, transactional sex may have been necessary to feed the family. As one participant explained:

Some mothers who are prostitutes they don’t tell their children what to do they just do it let them see and they don’t tell them how to protect themselves and the children say me a go do like weh [our] mommy do. Mommy a do it and mommy a she a big woman so mommy must know what is right from wrong.

Similar to the adult participants, adolescents reported that some mothers encouraged their daughters to engage in transactional relationships with wealthier older men. Typical quotes included: “Some mothers will tell their daughter if you want to have a boyfriend, take someone who has money and car”; “Some mothers tell kids to look for men with money”; “Some put her out to get for herself”; “Some mothers give their daughters to guys who have money”; and “Some mothers try to sell their daughters for money at clubs.” When participants made these types of comments, other group members indicated agreement.



Nearly all of the adolescent participants indicated awareness of the phenomenon, although none of the participants reported it in the context of their own lives or their own families.

## Summary

The data yielded four major themes: mother-daughter relationship quality, sexual communication, monitoring, and sexual role modeling. Interplay among the themes was also noted. Positive mother-daughter relationship quality was regarded as related to or enabling other maternal influences. In contrast, maternal hypocrisy was seen as diminishing the value of other maternal attempts to influence daughters.

## Discussion

The results of this study supported the PETPB (Hutchinson & Wood, 2007). The study results related to mother-daughter relationship quality, sexual communication, and monitoring were consistent with the results from earlier studies in the United States and elsewhere (DiClemente et al., 2001; Dilorio et al., 2007; Eisenberg et al., 2006; Guilamo-Ramos et al., 2008; Hutchinson et al., 2003; Li et al., 2002). However, unlike the results from earlier quantitative studies, participants in the current study identified both potentially positive and negative aspects in each of these influence domains. For example, girls reported that negative parental reactions and physical “abuse” might occur if they attempted to discuss sexual topics with their mothers. These findings highlighted the bidirectional nature of mother-daughter interactions and the potential importance of outcome expectancies.

In addition to the individual maternal influences reported, several combinations were noteworthy. Participants described the ways in which mother-daughter relationship quality interacted with other influences, particularly sexual communication and monitoring. In addition, perceived hypocrisy and inconsistency between what mothers did and what they told their daughters to do was seen as problematic. These types of mixed messages could reduce the mother’s credibility and impede the effectiveness of other maternal attempts at influence.

The fourth influence, MSRM, was unique to this study and extended the PETPB model. Although parental role modeling has been cited as an important factor in adolescent substance use (Coffelt et al., 2006), there is a near absence of literature addressing parental sexual role modeling. The few studies that have been conducted have been limited to the influence of family structure (e.g., single mother households) on adolescent sexual risk (Whitbeck, Simons, & Kao, 1994). The current study found that MSRM extended well beyond structural family characteristics. Examples of positive or protective MSRM included demonstrating strength and self-control in relationships with men. Examples of risk-promoting MSRM included mothers acting in an overtly sexual manner in public, engaging in transactional sex, and encouraging daughters to have transactional sexual relationships with men.

Although surveys have found that transactional sex is not unusual in Jamaica (USAID/Jamaica, 2011), the current study findings nevertheless must be viewed in context. Transactional sex is not unique to Jamaica; it exists in the United States and throughout the world (Wood et al., 2011). For very poor women in developing countries, transactional sex may be survival sex. Most importantly, although many participants reported that some mothers acted as risk-promoting role models or directly promoted their daughters to engage in sexual activity, this should not be equated with frequency of occurrence. These parenting behaviors were not viewed as normative or appropriate by participants and may only occur in a small minority of families.

## Limitations

The study's findings should be viewed in light of its limitations. Although facilitators used multiple strategies to engage all participants in discussions, some participants were more verbal and/or articulate than others, a common experience in focus groups. Participants were all residents of Kingston, St. Andrew, and St. Catherine parishes on the southern coast of Jamaica. These urban parishes included communities that were plagued by poverty, crime, and violence. Rural families and those who reside in other areas of the island were not included. In addition, most participants were recruited through CBOs. Families that were not engaged with community organizations may not have been represented and their voices may not have been heard.

## Research and Intervention Implications

Further study is needed to understand how parental influences operate in other areas of Jamaica, the Caribbean, and other countries where adolescents and young adults face significant risk for HIV and other STIs. Future research should examine to what extent parent-child sexual communication and parental monitoring exist across populations; how maternal sexual role modeling is enacted in other cultures; and how these parenting processes influence adolescent sexual risk beliefs and behaviors in other populations. In addition, there is a dire need for reliable and valid measures to assess and quantify parental influences, such as parent-child closeness, sexual communication, monitoring, and sexual role modeling. The cross-cultural validity of existing measures cannot be assumed; thus, it will be necessary to develop and evaluate instruments that are appropriate for use with other populations.

The findings of the current study highlighted the importance of conducting elicitation research in order to identify and understand the multiple potential influences of health behavior that are operating within a specific culture, in this case, maternal influences of adolescent girls' HIV-related sexual beliefs and behaviors. The results of the current study were used to develop an HIV risk reduction intervention for Jamaican families. The "Jamaican Mothers & Daughters Standing Strong Together" program included educational modules and activities that targeted each of the four maternal influences identified in this study. Further research will be needed to evaluate whether family-based HIV prevention interventions can be effective in other countries.

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### **Clinical Resources[05]**

- [http://www.unaids.org/globalreport/Global\\_report.htm](http://www.unaids.org/globalreport/Global_report.htm)
- <http://www.moh.gov.jm/>
- <http://www.nhpjamaica.org/informationCentre/statistics>