Understanding Sexual Abstinence in Urban Adolescent Girls

By: Dianne Morrison-Beedy, Michael P. Carey, Denise Côté-Arsenault, Susan Seibold-Simpson, and Kerry Anne Robinson

Morrison-Beedy, D., Carey, M. P., Côté-Arsenault, D., Seibold-Simpson, S. & Robinson, K.A. (2008). Understanding sexual abstinence in adolescent girls. *Journal of Obstetric, Gynecologic, and Neonatal Nursing, 37*, 185-195. DOI: 10.1111/j.1552-6909.2008.00217.x.

***Note: This version of the document is not the copy of record. Made available courtesy of Wiley-Blackley. The definitive version is available at www3.interscience.wiley.com.

Abstract:

Objectives- To gain insight into the context of sexual abstinence and identify potential determinants of abstinence in this population.

Design- Four focus groups.

Participants and Setting- Twenty-four, predominantly African American (88%) girls aged 14 to 19 years were recruited from urban health centers and youth development programs in Rochester, New York, between September and December 2006.

Data Analysis- Content analysis was used to analyze the four verbatim transcripts. Using analytic induction, groups were compared and contrasted at the micro (within-group) and macro (between-group) levels to identify themes.

Results- Four themes were identified that provided insight into how and why these girls remain abstinent despite being in sexually active social climates. They focused on the following: self-respect (I'm worth it), impact of mothers (Mama says ... think before you let it go), influence of boys and other peers (Boys will be boys), and potential negative consequences of sex (Hold on, there's a catch).

Conclusions- Developing interventions to maintain abstinence, delay onset of sexual activity, and promote protected first and subsequent sexual contact in abstinent girls are key to decreasing future sexual risk. These findings suggest opportunities to develop HIV prevention strategies tailored to the needs of abstinent girls.

Article:

Adolescent girls are at increasing risk for HIV infection, primarily due to sexual behavior (Centers for Disease Control and Prevention [CDC], 2004, 2005). From 1995 through 2005, the distribution of adolescent AIDS cases between genders has changed from predominantly male to almost equally divided numbers between genders. Most recently, 85% of HIV/AIDS cases in female adolescents and young adults were attributed to high-risk heterosexual contact, and the majority of these infections occurred in African Americans. Of the 33 states with confidential HIV infection surveillance, New York State has the highest number of cases in adolescents (CDC, 2007). Adolescent girls aged 15 to 19 years also have higher reported rates of sexually transmitted infections (STIs) such as chlamydia and gonorrhea than adolescent males or older

persons of either gender (CDC, 1999). These STI rates are especially relevant given that STIs are also known to facilitate the transmission of HIV (Boyers & Kegels, 1991).

LITERATURE REVIEW

HIV risk reduction interventions have been developed for adolescent youth, and many of these interventions have been evaluated in randomized controlled trials (RCTs). A recent meta-analysis of 56 such trials by Johnson, Carey, Marsh, Levin, and Scott-Sheldon (2003) indicated that both the theoretical mediators of HIV preventive behaviors (e.g., behavioral skills, communication with partners) as well as actual risk reduction behaviors (e.g., condom use, sexual frequency) were improved in these interventions. Similar findings were evidenced in another meta-analysis of adolescent HIV prevention trials from 1990 to 2002 by Chookaew et al. (2004). In contrast, in a systematic review of trials of sexual abstinence—only programs in high-income countries, none of the 13 trials affected, either positively or negatively, sexual risk in the adolescent participants. Of the abstinence-only trials reviewed that produced significant findings in either direction, these were counterbalanced by findings in the opposite direction for other behaviors or outcomes (Underhill, Montgomery, & Operario, 2007).

Studies with sexually active girls suggest that gender-specific interventions may enhance both psychosocial and behavioral outcomes related to HIV prevention (DiClemente et al., 2004; Kirby, 2001; Santelli, Ott, Lyon, Rogers, & Summers, 2006; Smoak, Scott-Sheldon, Johnson, Carey, & SHARP Research Team, 2006) but two gaps are apparent in the RCTs in the published literature. First, few all-girl interventions have been tested, and second, we have not identified any that have focused exclusively on sexually abstinent girls (Morrison-Beedy & Nelson, 2004).

A major gap in the HIV prevention literature is the lack of gender-specific interventions tailored specifically to the needs of sexually abstinent girls.

The gap in the literature with respect to interventions designed specifically for sexually abstinent girls is surprising for several reasons. First, abstinent girls represent a significant subgroup of the adolescent population; recent data indicate that more than one half of females aged 14 to 19 years reported that they have never had vaginal intercourse (Abma, Martinez, Mosher, & Dawson, 2004; Grunbaum et al., 2004). Second, intervening with abstinent girls offers an opportunity to address sexual risk reduction prior to adolescent girls becoming sexually active; such interventions can help to delay sexual initiation and to reduce risk behavior when these girls do become sexually active (Aten, Siegel, Enaharo, & Auinger, 2002). Third, girls' unique vulnerability and the gender-specific challenges they face in attempts to reduce sexual risk warrant special attention in intervention design and content. Thus, it is essential that girls learn the benefits of, and be assisted in, delaying onset of sexual activity; however, they must also be prepared to protect themselves from HIV, STIs, and unintended pregnancy when they transition to sexual activity (Cates, Herndon, Schultz, & Darroch, 2004; Haffner, 1998).

Intervention design is optimized when it is informed by theory, empirical precedent, and careful formative work. Several behavioral science theories (Fishbein et al., 2001; Fisher & Fisher, 1992) have identified key determinants of sexual risk behavior that should be targeted in interventions; developmental theory indicates the ways in which interventions should be designed to optimize their efficacy with adolescents (Irwin & Millstein, 1992; Pedlow & Carey,

2004). Our prior empirical research with sexually active adolescent girls also provided us with a foundation from which to develop interventions for sexually abstinent girls that would be gender specific as well as developmentally and culturally appropriate (Morrison-Beedy, Carey, & Aronowitz, 2003; Morrison-Beedy, Carey, Aronowitz, Mkandawire, & Dyne, 2002a, b; Morrison-Beedy, Carey, Kowalski, & Tu, 2005).

Focus groups can be used to understand the dynamics of HIV risk and preventive behavior in adolescent girls including abstinence. These findings can then be used to tailor the interventions to the population of interest in order to maximize its potential impact on HIV prevention outcomes (Fisher & Fisher, 1992). This methodology has been employed with: (a) younger adolescent girls (e.g., Aronowitz & Munzert, 2006), (b) both genders in regard to pregnancy risk (e.g., Hulton, Cullen, & Khalokho, 2000), and (c) adolescent girls to describe what the term abstinence meant to them (Haglund, 2003). Such methodology has not been used in formative work with mid-late adolescent, sexually abstinent girls to move beyond defining abstinence to identifying factors influencing this choice and skills used to maintain abstinence.

Therefore, the purposes of this study were to gain insight into the context of sexual abstinence and identify potential determinants of HIV preventive behavior in abstinent girls through formative research. The ultimate goal was to determine what refinements were needed to tailor a group-based intervention (previously used with sexually active girls; Morrison-Beedy et al., 2005) to enable abstinent girls to maintain abstinence, delay onset of sexual activity, and promote protected first and subsequent sexual contact in abstinent girls.

METHODS

Focus groups were used to gather girls' descriptions of their experiences of choosing not to have sex and factors influencing this choice. Following scientifically rigorous procedures, focus groups can provide valuable information from individual participants on their thoughts, feelings, and experience. These data are enhanced by the group process that occurs within the groups, thereby increasing the depth and breadth of individual responses (Morrison-Beedy, Côté-Arsenault, & Feinstein, 2001).

Participants

The eligibility criteria included the following: females aged 14 to 19 years old, with a history of a dating relationship with a male partner, never having had vaginal or anal intercourse, and able to attend one focus group. The sample consisted of 24 girls who ranged in age from 14 to 18 years with an average age of 15.1 (SD = 1.26) years. The majority of participants were African American (88%), 8% describing themselves as mixed race/other, and 4% as White; with respect to ethnicity, 8% considered themselves Hispanic/Latina. The majority (71%) received free or reduced lunch at their schools, a proxy indicator of economic disadvantage.

Procedures

Recruitment. Following institutional review board approval, participants were recruited using recruitment posters, brochures, and flyers posted at urban community, school-based, and area health care centers. Girls aged 14 to 19 years with no history of vaginal or anal intercourse were eligible for our study. We did not exclude girls who had had oral sex as we wanted to obtain a better understanding of how girls conceptualized this behavior—as a form of sex that would

preclude abstinence or as a form of preliminary sexual play. Of all the girls participating in the focus groups, none had had vaginal, anal, or oral sex. During discussions, however, two of the girls contributed that having only oral sex may still mean that you were considered abstinent; yet, the remaining girls voiced quite clearly that "oral sex is sex." Potential participants were screened for eligibility and then completed consents with a trained recruiter. Consent was obtained from the three participants who were 18 years old; parental consent and participant assent were obtained for the remaining participants who were less than 18 years of age.

Focus groups. Four focus groups were conducted with five to seven sexually abstinent girls in each group. Focus groups followed previously established procedures (Kirby, Laris, & Rolleri, 2006; Morgan, 1998). Each group was guided by the same study coordinator and experienced focus group moderator. At the start of each group, the moderator reviewed the guidelines and reminded the participants that the session would be audiotaped. The study coordinator served as note taker and transcribed impressions, nonverbal behaviors, key quotes, and group interactions. Each focus group was audiotaped and lasted for 60 to 90 minutes. Focus group participants were provided snacks at the beginning of each group meeting and were paid \$25 for participating.

An interview guide was used to structure the groups; the guide consisted of a list of open-ended exploratory questions guided by the Information-Motivation-Behavioral Skills Model (Côté-Arsenault & Morrison-Beedy, 1999, 2005; Fisher & Fisher, 1992). Initial questions were broad and open-ended (e.g., "What influences your decision to stay abstinent?"), and probes (e.g., "help me to understand that better" or "tell me more about that") were used to elicit more indepth responses. Also included were more specific questions (e.g., "Do you consider oral sex something you do that helps you avoid vaginal sex?" and "If you have oral sex, do you still consider yourself sexually abstinent?"). The girls' nonverbal responses and facilitator's initial impressions were summarized in field notes taken during the groups by one of the facilitators. Debriefing between the moderators occurred immediately following the focus group and included discussion of group characteristics, group interactions, what went well, what could be improved, and identification of possible themes. These meetings were audiotaped and then reviewed by the investigators as well. After the study team reviewed the debriefing tapes with the moderators, verbatim transcriptions were prepared immediately after each focus group. Subsequently, the transcripts were reviewed by the focus group moderators for accuracy and to add nonverbal communications.

Data coding and analysis

Content analysis was chosen as the data analysis method to identify themes and because of its focus on meanings, intentions, and context (Morrison-Beedy et al., 2001). Transcribed text and contextual data from field notes were reviewed for overall impressions, and then, analysis moved into line-by-line review to extracting significant statements, formulating the meaning of these statements, and organizing the meanings into themes (Ayres, Kavanaugh, & Knafl, 2003). Coding differences were explored and revised in meetings until consensus was achieved. Once each individual group transcript and field notes were examined, between-group analysis was performed. Groups were compared and contrasted at the micro (within-group) and macro (between-group) levels. Multiple dimensions of the group data were analyzed, including content, process, environments, dynamics, and milieu.

Theme identification and descriptions were refined through immersion in the data and team discussion. The interview guide was modified after reviewing the first and second focus group transcripts to capitalize on clarifications of themes identified in these groups and provide further direction for future groups. Trustworthiness of the analysis was established in multiple ways including: (a) debriefing after each focus group session, (b) independent and team approaches to analysis, (c) providing an audit trail of what was done and why, and (d) presenting rich descriptions of the sample and setting (Koch, 2004; Morrison-Beedy et al., 2001; Sandelowski, 1993). Trustworthiness was also increased through the use of one analyst who was not familiar with this population and provided a fresh perspective; this analyst could ask naïve questions that required further clarification within the analysis and theme development. Copies of an exhaustive description of the findings were sent to a random selection of 25% of participants for their review, verification, and comments. The six girls were then contacted by phone to review the descriptions with the research assistant and add further comments, clarifications, or totally new aspects that were not in the initial description (Bloor, 1983; Pyett, 2003). Participant responses were unanimously positive and agreed with the description, "Yes, this sounds just like what my group talked about."

RESULTS

During analysis, four themes were identified: (a) *Mama says* ... *think before you let it go*, (b) *I'm worth it*, (c) *Boys will be boys*, and (d) *Hold on, there's a catch*. It became clear, however, during theme identification that the themes were interrelated. Thus, an individual theme could not be completely understood without recognizing its connection to and impact on the other themes. This emerged as the girls described their thinking about their personal life choices.

Mama says ... think before you let it go

This theme reflects advice, warnings, or guidance given to the girls by an important person in their lives. All girls spoke of the persons who had influenced them, often to alert each girl to her potential. Awareness of that promise or capability led girls to want to avoid or postpone sexual activity so that she could realize her life goals.

Girls' mothers were clearly the most salient individuals. Nearly all the girls shared that their mother has made a concerted effort to supervise and communicate to their daughter the mother's thoughts and feelings regarding boyfriends, sexuality, and decision making. Mothers had an important impact on their daughters' view of boys, sex, and life and often dispensed advice. This maternal viewpoint was often grounded in the mother's life experience (e.g., as a teen mother), and it was clear that these mothers wanted a better life for their own daughters. The mothers used examples of girls who had become pregnant and now had responsibility for a baby as a way to teach their daughters about making wise choices. Mothers encouraged dreaming, reinforcing that her daughter had great potential and she should reach for those dreams.

Many of the girls gave examples of things their mothers say to them "Like she (mother) tell me like she say that one day I am probably gonna have like sex but she said like now you got a future going for yourself, you shouldn't wanna mess it up." Similarly, another girl described her mother as saying, "(she) told me not to have sex because she said she think I'm gonna have a baby, end up with a baby, and she don't want that for me. A lot that comes with it." She was describing her cousin who got pregnant. "I was like, but dang, I got a lot to live up for, I don't

wanna let my mom down, wanta let myself down 'cause that's low self esteem and I don't want to go through that."

These girls also recognized that their relationship with their mothers was unique and that other girls often do not have the advantage of this type of relationship.

If a female can't come to their mom and talk to them about stuff then it's hard for them say if somebody had sex with a boy and they try to tell their mom and they're scared, they all know the consequence behind it, telling their mom. They think their mom just probably gonna jump on 'em and tell 'em to get out of the house or yell at them or something like that or call 'em names or beat the crap out of them.

There seemed to be unique characteristics about the girls' relationships with their mothers. They felt that they could talk with them about anything; the girls often said that their mothers were approachable and were a constant influence in their lives. Sometimes, the mother was "in their (daughter's) face" about this, but in all cases, the girls said that this attention made them feel loved and cared for. They looked at some girls who were sexually active and felt that they did not feel loved, such girls who used sex as a means to find love.

Some girls have sex because like they say like their mom always yelling at them, or they having a hard child life so they try to relieve. They don't have love so they try to find love and I think that's the only way they try and find love.

Fathers were rarely mentioned as influential in their lives. However, one girl brought up the fact that her stepsister had become pregnant and she noticed that "Like the way my father treats her now is really different." Another girl who was in a relationship with a boy for 2 years stated, "I was in love with him. We never really did anything because you know (its) against my parents' wishes, mine and his, and also his parents'." Missing also was mention of the influence, positive or negative, of other adults, such as teachers, coaches, or other mentors.

Brothers influenced the girls by what they said and what they did. Brothers advised these girls not to have sex, even though the boys were sexually active often with several girls. Several participants remarked about their brothers, "they are clearly no virgins," an observation that was widely shared among the participants. Their brothers wanted and encouraged something better for their sisters.

Popular culture, as transmitted by the media and celebrities, also influenced the girls. The girls mentioned musical recording artists as having both positive and negative influences. Several girls noted that the media (i.e., television, music videos) "seemed to be talking directly to me" and thus influencing them. Many girls quoted a popular song about thinking over choices and whether to have sex or not. They brought up the line in a song that says "think before you let it go" and how they are trying to transfer that into their own lives. In contrast, a frequently viewed television show that presented a world in which everyone was having sex with people they barely knew but with few consequences was also frequently discussed in the groups. This show portrayed a very glamorous and cavalier view toward casual sex, normalizing such behavior. The girls recalled the important message in the song and took it to heart. Conversely, many girls saw through the hype of many television shows and felt that they were "being sold a bill of goods."

I'm worth it!

The theme "I'm worth it" reflected the young women's belief that there were other things in life that are more important than sex and that attaining these things were of far more value to the girls than the experience of sex and its associated risks. The girls spoke clearly about how they viewed themselves; they talked about self-worth, pride in themselves, and the future. Many expressed a positive sense of self; for them, postponing sex was a logical, necessary decision so that they could actualize their potential. This choice was deliberate, thought out, and not likely to change on a whim. These girls were steadfast, determined, and practical. Some of the girls were sexually inexperienced but quite sophisticated about the consequences of having sex. Talking about their sense of self-worth was spontaneous and integral to the focus group conversation.

It was also noted that these girls talked with potential boyfriends about sex and their choice to be abstinent before they went out; they chose boys who agreed with their choices:

Right now my life is steady and you know how sex change things . . . like I'm not, like you know, how some people have sex 'cause pressure, like I am not being pressured. None of that's coming in. So there's really no reason for me to have sex. Like I mean, I have a boyfriend but he don't pressure me, he already know the deal, like my life is moving steady.

Another girl described it this way, "You got your mind set on other things besides [sex]. You're not really thinking that you wanta have sex. You're thinking of other things like school, friends, family, work if you work. That's all I can think of."

Another girl described what she expected of a sexual relationship:

Like I want to be in a *real* relationship, If you gonna take my virginity I wanta be *with* you. I want you to call me at these times. I want you to call me everyday, you know, I want you to show me that you deserve me.

As a girl in one group poignantly put it, "You can be abstinent after the fact but you only lose your virginity one time, so you know you want to try to lose it right."

Many girls spoke with pride about the fact that they were abstinent, "I think people who choose to be abstinent should probably be rewarded." A 15-year-old said, "I am proud to be a virgin because I am innocent and I can wait until I am older and be more special." One girl who described herself as a "brainiac" commented that "the boys will always be there . . . And that's why I say I'm proud to be a brainiac and I'm proud to be a virgin."

These girls were not trying to hide their virginity. They were proud of it and let others know about their decision and stance on the subject. At times, they came across as wise beyond their years, mature, bright, and precocious.

If I wanta commit my dreams I can't have nothing holding me down, holding me back. Like dudes saying that they love you and all that. 'If you love me you will give it up' and all that. I think that's gonna hold me down, hold me back. So I'm looking like, I'm trying to stay single but it's hard sometimes, it really is but I am saying at the time that I am, I'm just gonna fight, I be like trying to accomplish. I'm gonna get good grades, try to get a scholarship; do something with my life . . . I'm just trying to wait until I am older, until I am more mature and I understand what I am doing.

These girls were not ambivalent; they were very clear about their position and why they held such belief in being abstinent. Similar to the beliefs of many girls in the groups, one girl expressed reasons why she thought she remained abstinent:

I think the biggest thing is self respect . . . I think like, if you would raise your bar like mad high, if you raise your standards higher, then I think you gonna be less likely to do like to do some of this stuff . . . you gonna be like, man, I got more for myself, like I wanta go to college and stuff like that. You gonna look at that like I don't wanta settle for less.

Boys will be boys

These girls had a pragmatic view of boys and their behavior; they knew that many boys wanted sex and may not have really cared about the girl and that many boys they knew would cheat on them or their girlfriends. As one girl described it:

Some boys just wanta, you know, do the girl and get it over with, leave 'em and then the girl looks stupid instead of the boy. The boy all walking off, boy happy, girl 'Oh man, why I have to give it up to him'.

The girls often described situations that had happened to their friends and often concurred that most boys would not be exclusive in their sexual relationships, especially as boys got older. One girl summed up this discussion this way, "I don't care if y'all supposed to be in a 'relationship' because when you is 15 and 16 that boy is going to cheat on you."

The girls were clear that they had different relationships with two categories of boys they knew—"homeboys" and "boyfriends." Homeboys were boys they could talk with about anything or spend time together, whereas boyfriends were those boys they had a romantic relationship with. There seemed to be an unspoken agreement that there would be no sexual engagement with homeboys. These girls told us about a lot of things that they did with their boyfriends instead of having sex: talking on the phone, riding bikes, listening to music, playing sports or games with each other, or watching movies. Both types of relationships were essential to these girls' social lives as well as how they learned about different roles and relationships with males.

Hold on, there's a catch

The theme "hold on, there's a catch" reflects an almost wary voice that echoed in many of these girls' minds as they considered whether they should have sex. Girls described curiosity and interest about becoming sexually active. However, they believed that any potential benefits were offset by the likelihood of adverse outcomes. Girls described both physical and emotional negative outcomes. As one girl noted:

And that's what gets you curious sometimes. They be like, 'cause my friends that have [had sex] they like 'it's the feel of it.' I be like, well damn, if it feels good and it's gonna make you feel good, well, wait a minute, well, maybe. Then I be like, wait a minute, hold on, there's a catch.

The "catch" referred to the negative consequences of sex. The girls believed the possibility of becoming pregnant, becoming infected with an STI, and the pain associated with vaginal sex were reasons not to be sexually active. The following quote from one of the girls clearly points out why she decided to be sexually abstinent. "I am not having sex because you don't wanta just have sex with anybody because you could end up pregnant or with a disease or something. And I'm scared it hurts, all that kind of stuff." Her feelings summarized the thoughts of many of the girls.

The negative consequence of pregnancy was layered with other concerns such as the decision to continue the pregnancy or have an abortion, how their mothers would feel if they became pregnant, worry that the boyfriend would not be involved with the baby if they continued the pregnancy, and the opportunity costs associated with being a teen parent, specifically not being able to have fun and concentrate on school. Of note, girls rarely discussed the option of seeking contraception to prevent pregnancy.

One of the negative consequences of becoming sexually active was the risk of being exposed to or developing an STI. Many of the girls spoke of knowing people who were infected with STIs and how that affected their perception of them, as well as other negative perceptions. As described, "Something that people say and they advertise on TV as being so good, feeling so good, [can] mess up your whole life. Now you gotta live taking medication. And if it's not taking medication you gonna die anyway." They articulated concerns about becoming HIV positive and the possibility of an early death. As one participant noted, condoms cannot always be trusted to prevent infection, "you know, some condoms ain't protective."

Although the physical concerns were in the forefront, the girls also believed that there was an inherent sense of regret if "losing your virginity wasn't done right." One girl said, "It's the regrets, you know, 'cause like if I was to do this, what's gonna happen next, you know." Girls expressed that if they were not having sex, they would not get hurt emotionally. "You're not going to hurt . . . emotionally ... 'cause when you was doing things to a boy you faced with lots of feelings sometimes." Girls expressed the concern that the boy might not feel the same way she did; if this should happen, the girl might get hurt and might feel remorse for the sexual experience.

These four themes are synergistic and intertwined. The girls' self-worth and self-esteem had likely been promoted for many years by their mothers and now fueled their convictions. Simultaneously, the mothers' influence reinforced the girls' desire to move toward positive choices. They had learned that some boys were self-focused and were not to be trusted when it came to sex. The reality that sex could have negative consequences was a deterrent but it would not be a strong enough influence without the positive influence of self-worth and others.

DISCUSSION

The purpose of this formative research was to gain insight into the context of, and identify potential determinants of, sexual abstinence among adolescent girls. Information gained through qualitative methods will help interventionists to design programs to maintain abstinence, delay onset of sexual activity, and promote protected first and subsequent sexual contact. While the majority of participants defined oral sex as "having sex" and something that would then make them no longer abstinent, further research is needed. These results coincide with those from Bersamin, Fisher, Walker, Hill, and Grube (2007) who found that definitions of virginity and abstinence differed between sexually active and abstinent youth, with those defining oral sex as contributing to the loss of abstinence more likely to be abstinent themselves. In other studies as well, definitions of "being abstinent" differed between genders, between sexually active and abstinent youth, and in those with a history of sexual abuse (Carpenter, 2001; Sanders & Reinisch, 1999). Since the meaning of these terms may also differ between adolescents and the scientists and clinicians who will be screening, recruiting, assessing, and intervening with them, gaining a better understanding of how youth conceptualize these terms is clearly needed.

The majority of the girls spoke poignantly about their beliefs in their own self-worth and plans for the future. These feelings were woven throughout the focus group conversations even as they discussed other thematic issues. Their lives included many valued activities that kept them busy and fulfilled; because their lives were busy and their futures bright, engaging in risky sexual activity held less appeal. Consistent with our qualitative findings, there is evidence that girls higher in self-esteem were more likely to have had more frequent communication with sex partners and parents, perceived fewer barriers to using condoms, and were less fearful of negotiating condom use (Salazar et al., 2005).

Validating the worth of every adolescent, and nurturing her aspirations, is clearly a worthwhile intervention component. Programs such as the Jemmotts'"Be Proud, Be Responsible" (Jemmott, Jemmott, & Fong, 1992), DiClemente and Wingood's SIHLE (Sistering, Informing, Healing, Living, and Empowering) (DiClemente et al., 2004), and Stanton's Focus on Kids (Wu et al., 2003) provide examples of interventions that include exercises designed to strengthen adolescents' self-regard, personal values, and long-term goals. Development of programs for abstinent adolescent females might include components that foster self-worth and future planning.

A second theme was the important role played by mothers who were consistently identified as important, influential persons who encouraged and supported a girl's choice to be abstinent. Although the approach used in our study did not allow us to specify at what stage during their development that their mothers began to influence the girls in regard to this issue, it was clear that mothers served as a protective factor. The importance of maternal involvement in sexual risk reduction interventions has already been suggested empirically (Hutchinson, Jemmott, Jemmott, Braverman, & Fong, 2003), and evaluation of interventions involving parental monitoring supports the importance of involving parents (Stanton et al., 2000). Our findings also suggest that recruiting mothers as well as adolescents to interventions may facilitate the naturally occurring protection observed in our sample and optimize intervention efficacy. Developing interventions solely for mothers may be another approach for addressing HIV risk in their daughters and should be considered as well.

It was noteworthy that the girls did not mention fathers, or other adults, regarding their decision to remain abstinent. The absence of other adults, and particularly fathers, is widely recognized as a risk factor for a variety of negative outcomes, including increased sexual activity (e.g., Hendricks et al., 2005). That the girls in our sample overcame this risk factor and remained abstinent shows that father absence alone does not determine girls' decisions regarding sexual behavior. Nonetheless, increasing paternal involvement in the lives of their daughters through intervention design may provide additional protections (Meeker, 2006).

Similar to the work by Hulton et al. (2000), in which Ugandan girls identified boys' lack of responsibility for the outcome of their sexual behaviors as a catalyst of sexual risk, the girls in our groups recognized that many boys participated in behaviors that the girls considered sexually negative. Several girls reported that boys would talk about girls who had had sex with them and stop "dating" the girl once they had sex with her. Girls also pointed out that boys (including their brothers) routinely had multiple sexual partners. The girls made clear that they did not want to end up in a similar situation. It was also clear that these girls believed they had the strength and ability to tell boys that they wanted to remain abstinent and to terminate relationships with boys who tried to pressure them to change their minds. Girls differed, however, on whether they avoided situations in which they had to refuse sex, restricted the type of relationships they had with boys, or terminated such relationships when pressured for sex.

This theme reflects two fundamental tenets of behavioral science theory and research. The first is the importance of peers during adolescence (Pedlow & Carey, 2004); it is widely acknowledged that peers can lead vulnerable youth into poor decision making and risky behavior. Girls in our sample were resilient in the face of such peer pressure. The second is the importance of behavioral skills for sexual risk reduction (Kelly, 1995). The girls in our sample seemed to have developed strong interpersonal skills, including sexual assertiveness and self-management skills that allowed them to avoid risky situations and to communicate clearly to potential partners in courtship situations. Interventions designed to promote abstinence should employ skill-building exercises to help adolescent girls avoid risky situations and peers and to teach assertiveness and interpersonal skills to help them negotiate safer sexual practices with partners. Ample evidence with adults indicates that interventions that include skills components are more efficacious (Copenhaver, Johnson, Lee, Harman, & Carey, 2006; Johnson, Carey, Chaudoir, & Reid, 2006; Johnson et al., 2003).

The fourth theme that emerged involved the potential for negative consequences resulting from sex. The most prominent of these concerns were those related to the physical effects of having sex: chance of becoming pregnant, HIV/STI risk, and pain during the first act of intercourse. This was not unlike the survey responses of approximately seven hundred 8th to 10th grade boys and girls who responded that fears related to pregnancy and STIs/HIV were their most common reason for not having sex (Blinn-Pike, 1999). Moving beyond these concerns, many of the girls also felt there was another negative consequence surrounding the potential emotional catch or trap that could occur when a girl chose to have sex. Girls were worried about having their feelings hurt, being gossiped about, or wishing they had not done something that they could never take back. The girls in these groups wanted to avoid being hurt either emotionally or physically; they wanted to protect themselves.

The negative consequences of sexual and other health-related behaviors are often identified in conceptual models as deterrents (e.g., the Health Belief Model; Rosenstock, 1966). Consequently, many behavioral interventions do include educational components to dispassionately identify these health threats to promote risk reduction. Based on our findings as well as theory, it appears that interventions designed for abstinent girls should confirm the real risks and consequences of sexual behavior. However, behavioral science research also suggests that fear-arousing messages can backfire if they appear heavy-handed or if they invoke defensive avoidance in participants (Earl & Albarracín, 2007).

Significant effort was made to ensure the trustworthiness of our findings and add to the rigor of our study. However, the results of our study are only suggestive and are based on a small sample of adolescent girls from one northeastern city. Clearly, they should not be assumed to be "representative" of all girls or a comprehensive set of risk and protective factors. However, they do provide insight into factors that have protected a group of socially- and economically disadvantaged girls from premature and risky sex.

These findings provide insight into factors that have protected a group of socially- and economically disadvantaged girls from premature and risky sex.

The findings from this research provide valuable insight into factors associated with delaying sexual activity in this sample of teenage girls. Nurses and clinicians providing care to adolescent girls can address these factors during health maintenance and reproductive health visits. This is especially salient in light of the recommendation by the American College of Obstetricians and Gynecologists Committee on Adolescent Health (2006) that girls first visit an ob-gyn between the ages of 13 and 15 in order to develop a trusting provider-client relationship within a health promotion visit before they need to seek care for a specific health concern.

In this study, rich information was obtained from our participants and four separate but interrelated themes were identified that suggest tangible topic areas that can be discussed during interactions with teenage girls to strengthen their desire to remain abstinent as well as help prepared them for when they become sexually active. A key finding is the acknowledgment that delaying sexual activity is often part of a larger picture of self-respect and self-worth projected by these girls. Our findings indicate that many abstinent girls may not be abstinent by chance but by choice; thus, the proactive thinking of these girls should be reinforced and client-identified strengths elicited during the course of the health care visit. Current aspects can include involvement in community projects or sports, academic success, and positive involvement with friends and family. Plans for the future, whether realistic or idealistic, can also be discussed as well as possible deterrents, including, but not limited to, pregnancy and child-rearing.

Engaging in conversation with adolescent girls about nonhealth topics, such as their relationship with their mother (or parents), life goals, and dreams for the future, may help girls to maintain a future-oriented time perspective (cf. Henson, Carey, Carey, & Maisto, 2006) and to prefer abstinence rather than an early and premature initiation into sexual activity. Focusing on the positive reasons for being abstinent, rather than relying solely on the use of scare tactics or the negative consequences of becoming sexually active, may be more persuasive to these girls.

However, in addition to standard topics, such as normal development and menstruation, clinicians can target more specific worries teenage girls might have such as pain during intercourse or a pelvic examination and prevention of STIs. These discussions also offer opportune times to discuss the HPV vaccine as well.

Clinicians should also consider discussions with mothers of teen girls, encouraging mothers to talk with their daughters about the pros and cons of sexual activity and relationships with boys; role-playing possible approaches to such discussions may be beneficial. Reinforcing mothers' beliefs regarding their influence on their daughter's values and decision making may be a valuable component to helping their daughters avoid sexual risk. Nurses and clinicians can help adolescents develop strategies to address potentially risky situations while in a safe environment. Additionally, nurses and clinicians can reinforce positive relationships with male friends and family members who can provide a voice of reason when girls are being pressured by a romantic partner or social group.

These findings can be integrated into the design of interventions tailored to sexually abstinent girls in order to maximize their potential impact on HIV prevention outcomes.

Based upon these findings, developing strategies that address some or all of these protective factors in a formal intervention is worthwhile. Including components within interventions that focus on girls' future aspirations, the mother-daughter relationship and communication, as well as emphasizing positive aspects of remaining abstinent within a supportive group of other abstinent girls may prove to be an effective approach to maintaining abstinence in these girls. In addition, however, the available evidence clearly indicates that an abstinence-only approach is not sufficient (Underhill et al., 2007). Abstinence-only approaches do delay sexual debut, but safer sex interventions have more long-lasted effects (Jemmott, Jemmott, & Fong, 1998). Therefore, sexual health promotion interventions for adolescent girls also need to prepare girls for their (inevitable) sexual debut so that, when this occurs, girls are knowledgeable and able to protect themselves against unintended pregnancy and STIs.

The inclusion of forward-looking risk reduction information, motivation, and skills in abstinence "plus" programs can be achieved without undermining abstinence goals; indeed, evidence from 174 recent studies documented that sexual risk reduction interventions do not inadvertently increase the overall frequency of sexual behavior (Smoak et al., 2006). Ultimately, the results of this study can help scientists and clinicians more clearly understand the thinking and decision making of sexually abstinent girls as they address with them ways to maintain abstinence and reduce future sexual risk.

ACKNOWLEDGMENTS

Funded by NINR R03 NR010193 (D.M.-B.) and NINR F31NR08665 (S.S.-S). The authors thank the participants for their contribution.

REFERENCES

Abma, J.C., Martinez, G.M., Mosher, W.D., & Dawson, B.S. (2004). Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, 2002. *Vital Health Statistics* 23(24).

- American College of Obstetricians and Gynecologists Committee on Adolescent Health. (2006). Committee opinion no. 335: The initial reproductive health visit. *Obstetrics and Gynecology*, 107, 1215-1219.
- Aronowitz, T., & Munzert, T. (2006). An expansion and modification of the information, motivation, and behavioral skills model: Implications from a study with African American girls and their mothers. *Issues in Comprehensive Pediatric Nursing*, 29, 89-101.
- Aten, M.J., Siegel, D., Enaharo, M., & Auinger, P. (2002). Keeping middle school students abstinent: Outcomes of a primary prevention intervention. *Journal of Adolescent Health*, 31, 70-78.
- Ayres, L., Kavanaugh, K., & Knafl, K.A. (2003). Within-case and across-case approaches to qualitative data analysis. *Qualitative Health Research*, 13, 871-883.
- Bersamin, M.M., Fisher, D.A., Walker, S., Hill, D.L., & Grube, J.W. (2007). Defining virginity and abstinence: Adolescent's interpretations of sexual behaviors. *Journal of Adolescent Health*, 41, 182-188.
- Blinn-Pike, L. (1999). Why abstinent adolescents report they have not had sex: Understanding sexually-resilient youth. *Family Relations*, 48, 295-301.
- Bloor, M.J. (1983). Notes on member validation. In R. M. Emerson (Ed.), *Contemporary field research: A collection of readings* (pp. 156-172). Prospect Heights, IL: Waveland Press.
- Boyers, D.B., & Kegels, S.M. (1991). AIDS risk and prevention among adolescents. *Social Science and Medicine*, *33*, 11-23.
- Carpenter, L.M. (2001). The ambiguity of "having sex": The subjective experience of virginity loss in the United States. *Journal of Sex Research*, *38*, 127-139.
- Cates, J.R., Herndon, N.L., Schultz, S.L., & Darroch, J.E. (2004). *Our voices, our lives, our futures: Youth and sexually transmitted diseases*. Chapel Hill: School of Journalism and Mass Communication, University of North Carolina at Chapel Hill.
- Centers for Disease Control and Prevention. (1999). Sexually transmitted disease surveillance 1998: Centers for Disease Control and Prevention, National Center for HIV, STD and TB prevention. Atlanta, GA: Author.
- Centers for Disease Control and Prevention. (2004). Fact sheet: Young people at risk for HIV/AIDS among America's youth. Atlanta, GA: Author.
- Centers for Disease Control and Prevention. (2005). AIDS cases by state and metropolitan area provided for the Ryan White CARE Act.

- Centers for Disease Control and Prevention. (2007). *HIV/AIDS surveillance report*, 2005: Vol. 17. Atlanta, GA: Author.
- Chookaew, N., Soeken, K., Harris, R., Johantgen, M., DeForge, B., Dorsey, S., et al. (2004, July 11-16). The impact of adolescent HIV/AIDS prevention programs on sexual behaviors: A meta-analysis, International Conference on AIDS. Abstract No. THPeD7633. Bangkok, Thailand.
- Copenhaver, M.M., Johnson, B.T., Lee, I.C., Harman, J.J., & Carey, M.P. (2006). Behavioral HIV risk reduction among people who inject drugs: Meta-analytic evidence of efficacy. *Journal of Substance Abuse Treatment*, 31, 163-171.
- Côté-Arsenault, D., & Morrison-Beedy, D. (1999). Practical advice for planning and conducting focus groups. *Nursing Research*, 48, 280-283.
- Côté-Arsenault, D., & Morrison-Beedy, D. (2005). Maintaining your focus in focus groups: Avoiding common mistakes. *Research in Nursing & Health*, 28, 172-179.
- DiClemente, R.J., Wingood, G.M., Harrington, K., Lang, D.L., Davies, S.L., Hook, E.W., III, et al. (2004). Efficacy of an HIV prevention intervention for African American adolescent girls. *Journal of the American Medical Association*, 292, 171-179.
- Earl, A., & Albarracín, D. (2007). Nature, decay, and spiraling of the effects of fear-inducing arguments and HIV counseling and testing: A meta-analysis of the short- and long-term outcomes of HIV-prevention interventions. *Health Psychology*, 26, 496-506.
- Fishbein, M., Triandis, H.C., Kanfer, F.H., Becker, M., Middlestadt, S.E., & Eichler, A. (2001). Factors influencing behavior and behavior change. In A. Baum, T. A. Revenson, & J.E. Singer (Eds.), *Handbook of health psychology* (pp. 3-17). Mahwah, NJ: Erlbaum.
- Fisher, J.D., & Fisher, W.A. (1992). Changing AIDS-risk behavior. *Psychological Bulletin*, 111, 455-474.
- Grunbaum, J.A., Kann, L., Kinchen, S., Ross, J., Hawkins, J., Lowry, R., et al. (2004). Youth risk behavior surveillance United States, 2003. *Morbidity and Mortality Weekly Report*, 53 (SS-2), 1-96.
- Haffner, D.W. (1998). Facing facts: Sexual health for American adolescents. *Journal of Adolescent Health*, 22, 453-459.
- Haglund, K. (2003). Sexually abstinent African American adolescent females' descriptions of abstinence. *Journal of Nursing Scholarship*, 35, 231-236.
- Hendricks, C.S., Cesario, S.K., Murdaugh, C., Gibbons, M.E., Servonsky, E.J., Bobadilla, R.V., et al. (2005). The influence of father absence on the self-esteem and self-reported sexual

- activity of rural southern adolescents. ABNF Journal: Official Journal of the Association of Black Nursing Faculty in Higher Education, 16, 124-131.
- Henson, J., Carey, M., Carey, K., & Maisto, S. (2006). Associations among health behaviors and time perspective in young adults: Model testing with boot-strapping replication. *Journal of Behavioral Medicine*, 29, 127-137.
- Hulton, L.A., Cullen, R., & Khalokho, S.W. (2000). Perceptions of the risks of sexual activity and their consequences among Ugandan adolescents. *Studies in Family Planning*, *31*, 35-46.
- Hutchinson, M.K., Jemmott, J.B., III, Jemmott, L.S., Braverman, P., & Fong, G.T. (2003). The role of mother-daughter sexual risk communication in reducing sexual risk behaviors among urban adolescent females: A prospective study. *Journal of Adolescent Health*, *33*, 98-107.
- Irwin, C.E., Jr., & Millstein, S.G. (1992). Risk-taking behaviors and biopsychosocial development during adolescence. In E.J. Susman, L.V. Feagans, & W.J. Ray (Eds.), *Emotion, cognition, health, and development in children and adolescents* (pp. 75-102). Hillsdale, NJ: Lawrence Erlbaum.
- Jemmott, J.B., Jemmott, L.S., & Fong, G.T. (1992). Reductions in HIV risk-associated sexual behaviors among black male adolescents: Effects of an AIDS prevention intervention. *American Journal of Public Health*, 82, 372-377.
- Jemmott, J.B., III, Jemmott, L.S., & Fong, G.T. (1998). Abstinence and safer sex HIV risk-reduction interventions for African American adolescents: A randomized controlled trial. *Journal of the American Medical Association*, 279, 1529-1536.
- Johnson, B.T., Carey, M.P., Chaudoir, S.R., & Reid, A.E. (2006). Sexual risk reduction for persons living with HIV: Research synthesis of randomized controlled trials, 1993 to 2004. *Journal of Acquired Immune Deficiency Syndromes*, 41, 642-650.
- Johnson, B.T., Carey, M.P., Marsh, K.L., Levin, K.D., & Scott-Sheldon, L.A. (2003). Interventions to reduce sexual risk for the human immunodeficiency virus in adolescents, 1985-2000: A research synthesis. *Archives of Pediatrics and Adolescent Medicine*, 157, 381-388.
- Kelly, J.A. (199). Changing HIV risk behavior: Practical strategies. New York: Guilford Press.
- Kirby, D. (2001). *Emerging answers: Research findings on programs to reduce teen pregnancy.* (Summary). Washington, DC: National Campaign to Prevent Teen Pregnancy.
- Kirby, D., Laris, B.A., & Rolleri, L. (2006). *The impact of sex and HIV education programs in schools and communities on sexual behaviors among young adults*. Research Triangle Park, NC: Family Health International.

- Koch, T. (2004). Commentary: Expert researchers and audit trails. *Journal of Advanced Nursing*, 45, 134-135.
- Meeker, M. (2006). Strong fathers, strong daughters. Washington, DC: Regnery.
- Morgan, D.L. (1998). Planning focus groups. In Morgan, D.L., Krueger, R.A. (eds) *Focus group kit: Vol.* 2. Thousand Oaks, CA: Sage.
- Morrison-Beedy, D., Carey, M.P., & Aronowitz, T. (2003). Psychosocial correlates of HIV risk behavior in adolescent girls. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, 32, 94-101.
- Morrison-Beedy, D., Carey, M.P., Aronowitz, T., Mkandawire, L., & Dyne, J. (2002a). Adolescents' input on the development of an HIV-risk reduction intervention. *Journal of the Association of Nurses in AIDS Care*, 13, 21-27.
- Morrison-Beedy, D., Carey, M.P., Aronowitz, T., Mkandawire, L., & Dyne, J. (2002b). An HIV risk-reduction intervention in an adolescent correctional facility: Lessons learned. *Applied Nursing Research*, *15*, 97-101.
- Morrison-Beedy, D., Carey, M.P., Kowalski, J., & Tu, X. (2005). Group-based HIV risk reduction intervention for adolescent girls: Evidence of feasibility and efficacy. *Research in Nursing & Health*, 28, 3-15.
- Morrison-Beedy, D., Côté-Arsenault, D., & Feinstein, N.F. (2001). Maximizing results with focus groups: Moderator and analysis issues. *Applied Nursing Research*, 14, 48-53.
- Morrison-Beedy, D., & Nelson, L.E. (2004). HIV prevention interventions in adolescent girls: What is the state of the science? *Worldviews on Evidence-Based Nursing*, 1, 165-175.
- Pedlow, C.T., & Carey, M.P. (2004). Developmentally appropriate sexual risk reduction interventions for adolescents: Rationale, review of interventions, and recommendations for research and practice. *Annals of Behavioral Medicine*, 27, 172-184.
- Pyett, P.M. (2003). Validation of qualitative research in the real world? *Qualitative Health Research*, 13, 1170-1179.
- Rosenstock, I.M. (1966). Why people use health services. *Millbank Memorial Fund Quarterly*, 44, 94-124.
- Salazar, L.F., Crosby, R.A., DiClemente, R.J., Wingood, G.M., Lescano, C.M., Brown, L.K., et al. (2005). Self-esteem and theoretical mediators of safer sex among African American female adolescents: Implications for sexual risk reduction interventions. *Health Education and Behavior*, *3*, 413-427.

- Sandelowski, M. (1993). Rigor or rigor mortis: The problem of rigor in qualitative research revisited. *Advances in Nursing Science*, *16*, 1-8.
- Sanders, S.A., & Reinisch, J.M. (1999). Would you say you had sex if? *Journal of the American Medical Association*, 281, 275-277.
- Santelli, J., Ott, M.A., Lyon, M., Rogers, J., & Summers, D. (2006). Abstinence-only education policies and programs: A position paper of the Society for Adolescent Medicine. *Journal of Adolescent Health*, *38*, 83-87.
- Smoak, N.D., Scott-Sheldon, L.A., Johnson, B.T., Carey, M.P., & SHARP Research Team. (2006). Sexual risk reduction interventions do not inadvertently increase the overall frequency of sexual behavior: A meta-analysis of 174 studies with 116,735 participants. *Journal of Acquired Immune Deficiency Syndromes*, 41, 374-384.
- Stanton, B.F., Li, X., Galbraith, J., Cornick, G., Feigelman, S., Kaljee, L., et al. (2000). Parental underestimates of adolescent risk behavior: A randomized, controlled trial of a parental monitoring intervention. *Journal of Adolescent Health*, 26, 18-26.
- Underhill, K., Montgomery, P., & Operario, D. (2007). Sexual abstinence only programmes to prevent HIV infection in high income countries: Systematic review. *British Medical Journal* [downloaded from BMJ Online First], *335*, 1-12.
- Wu, Y., Stanton, B.F., Galbraith, J., Kaljee, L., Cottrell, L., Li, X., et al. (2003). Sustaining and broadening intervention impact: A longitudinal randomized trial of 3 adolescent risk reduction approaches. *Pediatrics*, 111, e32-e38.