Differences Between Dual-Method and Non–Dual-Method Protection Use in a Sample of Young African American Women Residing in the Southeastern United States

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Objectives: To characterize dual-method protection users and report the prevalence of dual-method use among young adult African American women residing in the Southeastern United States.

Design: Analysis of baseline data from a randomized controlled trial.

Setting: A clinic-based sample of young women enrolled in a randomized trial of a human immunodeficiency virus (HIV)–prevention program in Atlanta, Georgia, from June 2005 to June 2007.

Participants: African American women aged 14 to 20 years who reported unprotected sexual activity in the past 6 months. Of the eligible adolescents, 94% (N = 701) were enrolled in the study and completed baseline assessments.

Outcome Measures: Dual-method protection use as well as sociodemographic, individual-level, interpersonal-level, and community-level factors and interpersonal communication skills. Only data from the baseline assessment, before randomization, were used for the analysis.

Results: A total of 102 participants (14.6%) were classified as dual-method protection users. After controlling for age and clinic, significant differences between dual-method users and non–dual-method users were found for impulsivity, self-esteem, social support, relationship style, partner communication self-efficacy, and fear of condom negotiation.

Conclusions: Dual-method protection use is low. Identification of factors that differentiate dual-method users from non–dual-method users at the individual, interpersonal, and community levels in this young African American sample suggests that HIV, sexually transmitted disease, and unintended pregnancy risk–reduction programs should address factors at each level, not simply the individual level, and that this may involve structural and/or clinical counseling practice changes in clinics that serve young women, to optimally facilitate dual-method protection use among young African American women in the Southeastern United States.

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Young women are at the greatest risk of pregnancy and sexually transmitted diseases (STD). Recently, the Centers for Disease Control and Prevention reported that 1 in 4 girls in the United States has an STD, and they are twice as likely to report STDs as boys the same age. Despite widespread availability of safe and effective contraceptive technologies, unintended pregnancy is also a significant public health issue in the United States, with an estimated 82% of pregnancies being unintended. Furthermore, after declining nearly 30% nationally from its peak in 1991, the teen birth rate rose 3% in 2006 and another 1% in 2007.

These risks are magnified in the Southeastern United States, where national case surveillance data indicate that the burden of STD/human immunodeficiency virus (HIV) and teen pregnancy disproportionately affects African American youth aged 13 to 24 years. Compared with the national average rate of 84 pregnancies per 1000 adolescents, African American pregnancy rates in Alabama, Georgia, and Mississippi are all above the national average (123, 127, and 139 per 1000, respectively). Moreover, Georgia has the eighth highest adolescent birth rate in the nation and ranks second highest in repeated births. While the pregnancy rate for African American adolescents has declined in Georgia, it remains almost twice the rate of that of white individuals.

For more than a decade, medical practitioners, researchers, and professional organizations (eg, the Centers for Disease Control and Prevention, American Medi-

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al Association, American Academy of Pediatrics, and the American College of Obstetrics and Gynecology) have recommended comprehensive reproductive health counseling for young women that includes recommending dual-method protection strategies to prevent both unintended pregnancy and STD/HIV. Although recommended, dual-protection strategy use is not commonly practiced. A nationally representative survey of young women found that 6.6% used both a condom and oral contraception at their last sexual encounter. Findings from the National Survey of Family Growth indicated that 8.5% of adolescent girls reported dual-method protection use (condoms plus oral contraception during the month when the interview occurred). Among African American adolescent girls, 13.5% used dual-method protection, suggesting that dual-method use may be slightly higher among certain racial/ethnic groups.

Few studies have investigated correlates of dual-method protection use. In persons aged 14 to 22 years, dual-method protection use was more likely among younger and African American adolescents, particularly those who communicated with their parents about HIV. For low-income, predominately minority urban women, dual-method protection use was more likely among those who had a history of STDs and were worried about both pregnancy and HIV. Communicating with male sex partners and parents about family planning and higher self-efficacy to refuse non-condom-protected sex were also associated with increased dual-method protection use.

Although informative, gaps in the empirical database regarding dual-method protection use remain. Specifically, most studies that explore contraceptive and/or condom use employ a decision-theory framework, an individual-centered explanation for clients' decisions and behavior, to guide the research. This framework has strengths for understanding personal decisionmaking but may not adequately address the broader array of contextual influences that affect women's decisions and behaviors. Recent findings support the use of a broader contextual perspective because young women make behavioral choices within a complex web of social systems and structures, and each system (individual-, interpersonal-, family, and peers, community-, and society-level systems) influences STD/HIV preventive and contraceptive behaviors.

This study identifies the prevalence of dual-method protection use among young African American women in the Southeastern United States and characterizes dual-method users along an array of contextual influences including individual-, interpersonal-, and community-level factors. For this study, dual-method use was conceptualized as young women's concurrent use of a hormonal birth control method and use of a condom at their last sexual encounter.

**METHODS**

**SETTING**

Participants were part of a larger study evaluating a sexual risk-reduction intervention for young African American girls. Analyses reported in this article are based on data from the baseline assessment. From June 2005 to June 2007, African American adolescent women aged 14 to 20 years were recruited from 3 clinics in Atlanta, Georgia, that provided sexual health services to predominantly inner-city adolescents. A young, female, African American recruiter approached adolescents in the clinic waiting area, described the study, solicited participation, and assessed eligibility. Eligibility criteria included self-identifying as African American, being 14 to 20 years of age, and reporting vaginal intercourse at least once without a condom in the past 6 months. Adolescents who were married, currently pregnant, or attempting to become pregnant were excluded. Adolescents returned to the clinic to complete informed consent procedures and baseline assessments and to be randomized to trial conditions. Written informed consent was obtained from all adolescents, with parental consent waived for those younger than 18 years owing to the confidential nature of clinic services. Of the eligible adolescents, 94% (N=701) were enrolled in the study, completed baseline assessments, and were randomized to study conditions. The Emory University Institutional Review Board approved all study protocols.

**PARTICIPANTS**

The sample comprised 701 participants recruited from either a county health department STD clinic (n=373), hospital-based adolescent clinic (n=81), or Planned Parenthood clinic (n=247). Participants' mean (SD) age was 17.6 (1.7) years. Most (65.3%) were full-time students; the remaining 34.8% had graduated, which represents appropriate levels of education for their age. Most reported living in a mother-only household (42.5%). Most (79.5%) reported being in a current relationship (mean [SD] length of relationship, 14.4 [14.9] months).

**PROCEDURES**

Data collection consisted of a 60-minute survey administered via audio computer-assisted self-interviewing technology. Questions on the baseline survey included demographics, sexual history, attitudes and outcome expectancies, psychosocial variables, HIV/STD knowledge, and peer norms. Participants were compensated $50 for their participation.

**MEASURES**

**Dual-Method Use**

Dual-method use was based on current hormonal birth control use and condom use at last sexual encounter, assessed by 2 questions: "The very last time you had sex, did you use a condom to prevent STDs or pregnancy?" and, "The very last time you had sex, did you use the pill, patch or Depo?" Response choices were yes (1) or no (0). Participants responding yes to both questions were classified as dual-method users. All others were classified as non–dual-method users.

**Sociodemographic Measures**

Age was assessed by asking, "How old are you (in years)?" Receiving federal assistance for living expenses was assessed by 4 binary response format questions (yes/no). Responses were summed to create an index of family aid.

**Individual-Level Measures**

Depressive Symptomatology. Depressive symptoms were assessed with the 8-item Center for Epidemiological Studies-
Depression scale. This scale assesses the presence of depressive symptoms in the past 7 days and has been shown to be a valid measure of depressive symptoms in African Americans. Cronbach α, a measure of the scale’s internal consistency, was .91.

**Perceived Interpersonal Stress.** We used 13 items modified from the African American Women’s Stress Scale to measure perceived interpersonal stress. Questions assess the amount of stress an individual feels in various interpersonal relationships. Cronbach α was .87.

**Self-esteem.** The 10-item Rosenberg Self-Esteem Scale measured global self-esteem. Possible scores range from 10 to 40, with higher scores indicating higher levels of self-esteem. Cronbach α was .86.

**Impulsivity.** Impulsivity was assessed using Zimmerman’s 15-item impulsivity scale. Possible scores range from 15 to 75, with higher scores indicating higher levels of impulsivity. Sample scale items include, “I like to do things as soon as I think about them” and, “I act on the spur of the moment.” Cronbach α was .76.

**History of Forced Vaginal or Anal Sex.** History of sexual violence was determined based on 2 questions assessing forced vaginal intercourse or forced anal intercourse: “Has anyone ever forced you to have vaginal sex when you didn’t want to?” and, “Has anyone ever forced you to have anal sex when you didn’t want to?” Response choices were yes (1) and no (0).

**Current Alcohol Use.** Recent alcohol use was assessed by asking, “In the past 90 days, how many days have you used alcohol?” Participants entered the number of days, with options ranging from 0 to 90 days.

**Current Marijuana Use.** Recent marijuana use was assessed by asking, “In the past 90 days, how many days have you used marijuana?” Participants entered the number of days, with options ranging from 0 to 90 days.

**Interpersonal-Level Measures**

**Social Support.** Perceived social support was assessed with a 12-item scale developed by Zimet et al. Sample scale items include (1) my family really tries to help me, and (2) I can count on my friends when things go wrong. Responses were coded so that higher scores reflected higher levels of perceived social support. Cronbach α was .90.

**Relationship Questionnaire.** The Relationship Questions is a procedure developed by Bartholomew and Horowitz in which participants rate the degree to which each of 4 descriptive vignettes describe their feelings about significant others (ie, boyfriends/other intimate relationships) on a scale from 1 to 4 (1 = not at all like me; 4 = very much like me). The vignettes represent 4 distinct types of relationship styles: secure, fearful, preoccupied, and anxious. Higher scores indicate a preference for a particular relationship style.

**Currently Having a Boyfriend.** Current relationship status was assessed by a single question, “Do you have a boyfriend?” Boyfriend was defined as a current partner that you have a sexual relationship with or someone you have a special or committed relationship. Response choices were yes (1) or no (0).

**Currently Having a Casual Sex Partner.** Currently having a casual sex partner, defined as someone other than a current boyfriend who you occasionally have sex with and are not in a committed relationship with, was assessed by a single item, “Do you currently have a casual sex partner(s)?” Response choices were yes (1) or no (0).

**Interpersonal Communication Measures**

**Fear of Consequences of Condom Negotiation.** Fear of consequences of condom negotiation with a sexual partner was assessed by a 7-item scale. Sample consequences were to “ignore my request,” “hit, push or kick me,” “leave me,” and “go out with other girls.” Cronbach α was .87.

**Partner Communication Self-efficacy.** A 6-item scale assessed partner sexual communication self-efficacy. Sample items included, “With a sex partner, how hard is it for you to ask how many sex partners he has had?” and, “With a sex partner, how hard is it for you to ask if he would use a condom?” Cronbach α was .82.

**Partner Communication Frequency.** Partner communication frequency was assessed by a 5-item scale that assess adolescents’ frequency of communicating with male sex partners. Each item required a response based on a 4-point Likert-type scale (never to a lot/7 or more times). Higher values indicate more frequent sexual communication. Cronbach α was .83.

**Parent-Adolescent Communication Scale.** The Parent-Adolescent Communication Scale is composed of 3-items assessing adolescents’ frequency of communicating about sexually related topics with their parents. Each item required a response based on a 4-point Likert-type scale from 1 (never) to 4 (often). Higher values indicated more frequent parent-adolescent communication. Cronbach α was .91.

**Community-Level Measures**

**Clinic.** Participants were recruited from 3 downtown Atlanta reproductive health/STD clinics where they were currently receiving services. Participant’s clinic choice was recorded by assessment staff during baseline assessment. Clinic was selected as a community-level factor because clinic differences such as counseling practices with adolescent clients or clinic atmosphere (eg, teen-friendly, easy for teens to access) may influence dual-method use.

**Neighborhood Quality.** Neighborhood quality was assessed with 3 questions about the physical condition of participants’ neighborhood. A sample item is, “On your street, are there abandoned homes or apartments?” Responses to all 3 yes/no questions were summed to create an index of neighborhood quality. Neighborhood quality was included as a community-level factor because it has been associated with STD infections in prior research, and it has been suggested that a disordered physical environment is a signal to residents that behaviors that are usually prohibited are tolerated.

**STATISTICAL ANALYSIS**

Descriptive statistics summarized sociodemographics and dual-method use for the entire sample. In addition, analyses examined differences between groups (dual-method users vs non–dual-method users) on sociodemographic variables, individual-level, interpersonal-level, and community-level measures. Differences were assessed using independent-samples t tests for continuous variables and χ² analyses for categorical variables. Individual and interpersonal factors...
(which are commonly targeted in intervention programs because they are amenable to change) that differed significantly between dual-method users and nonusers were subsequently analyzed using analyses of covariance, controlling for any significant sociodemographic and community-level variables (which are less amenable to change).

## RESULTS

### DESCRIPTIVE ANALYSIS

The prevalence of dual-method use in this sample of young Southern African American women was 14.6% (n = 102). Several participants reported using only 1 method during their last sexual encounter, with 28.5% (n = 200) reporting using only a condom at their last sexual encounter and 20% (n = 140) reporting using only hormonal birth control. The remaining 36.9% (n = 259) reported not using a condom or hormonal birth control during their last sexual episode.

### GROUP DIFFERENCES IN MULTILEVEL FACTORS

The only sociodemographic difference between dual-method users and non–dual-method users that demonstrated a statistically significant difference was age: dual-method users were younger (mean age, 17.2 years vs 17.70 years; P = .01).

Several individual-level factors such as abuse history, depression, and impulsivity were compared between dual-method users and non–dual-method users (Table 1).

Interpersonal-level factors such as social support, relationship style, and current relationship status were compared between dual-method users and non–dual-method users (Table 2).

Interpersonal communication skills such as partner sexual communication self-efficacy, parent-adolescent sexual communication frequency, and fear of condom negotiation were compared between dual-method users and non–dual-method users (Table 3).

### Table 1. Differences in Individual-Level Factors by Dual-Method Use or Non–Dual-Method Use

<table>
<thead>
<tr>
<th>Individual-Level Factors</th>
<th>Mean (SD) by Method Used</th>
<th>Test Statistic</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depressive symptomatology</td>
<td>13.74 (6.52)</td>
<td>15.05 (6.49)</td>
<td>t = 1.90</td>
</tr>
<tr>
<td>Perceived interpersonal stress</td>
<td>28.07 (12.81)</td>
<td>28.43 (13.25)</td>
<td>t = 0.28</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>35.36 (4.77)</td>
<td>33.68 (5.09)</td>
<td>t = −3.11</td>
</tr>
<tr>
<td>Impulsivity</td>
<td>37.08 (8.22)</td>
<td>38.99 (7.50)</td>
<td>t = 2.35</td>
</tr>
<tr>
<td>History of forced vaginal sex, No. (%)</td>
<td>19 (18.6)</td>
<td>149 (24.9)</td>
<td>χ² = 1.87</td>
</tr>
<tr>
<td>History of forced anal sex, No. (%)</td>
<td>1 (1.0)</td>
<td>28 (4.7)</td>
<td>χ² = 3.00</td>
</tr>
<tr>
<td>Alcohol use in past 90 d</td>
<td>2.67 (4.38)</td>
<td>4.37 (8.83)</td>
<td>t = 2.63</td>
</tr>
<tr>
<td>Marijuana use in past 90 d</td>
<td>6.31 (17.03)</td>
<td>12.19 (24.67)</td>
<td>t = 2.51</td>
</tr>
</tbody>
</table>

### Table 2. Differences in Interpersonal-Level Factors by Dual-Method Use or Non–Dual-Method Use

<table>
<thead>
<tr>
<th>Interpersonal-level Factors</th>
<th>Method Used</th>
<th>Test Statistic</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social support, mean (SD)</td>
<td>37.12 (4.83)</td>
<td>35.74 (5.96)</td>
<td>t = −2.21</td>
</tr>
<tr>
<td>Secure relationship style, mean (SD)</td>
<td>3.26 (1.89)</td>
<td>2.94 (1.06)</td>
<td>t = −3.96</td>
</tr>
<tr>
<td>Fearful relationship style, mean (SD)</td>
<td>2.15 (1.09)</td>
<td>2.42 (1.15)</td>
<td>t = 2.26</td>
</tr>
<tr>
<td>Has current boyfriend, No. (%)</td>
<td>76 (74.5)</td>
<td>481 (80.3)</td>
<td>χ² = 1.79</td>
</tr>
<tr>
<td>Has current casual sex partner, No. (%)</td>
<td>43 (42.2)</td>
<td>199 (33.2)</td>
<td>χ² = 3.08</td>
</tr>
</tbody>
</table>

### Table 3. Differences in Interpersonal Communication Factors by Dual-Method Use or Non–Dual-Method Use

<table>
<thead>
<tr>
<th>Interpersonal Communication Factors</th>
<th>Mean (SD) by Method Used</th>
<th>t</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear of condom negotiation</td>
<td>7.69 (1.64)</td>
<td>8.35 (3.41)</td>
<td>3.11</td>
</tr>
<tr>
<td>Partner communication self-efficacy</td>
<td>21.24 (2.94)</td>
<td>20.45 (3.67)</td>
<td>−2.40</td>
</tr>
<tr>
<td>Partner communication frequency</td>
<td>12.34 (3.95)</td>
<td>11.85 (4.38)</td>
<td>−1.07</td>
</tr>
<tr>
<td>Parent-adolescent communication</td>
<td>14.52 (4.61)</td>
<td>13.22 (5.05)</td>
<td>−2.59</td>
</tr>
</tbody>
</table>
Because significant differences in age and clinic were identified between dual-method and non–dual-method users, both variables that are not amenable to behavioral intervention, all significant individual and interpersonal factors were reanalyzed using analyses of covariance, controlling for age and clinic site (Table 4). After controlling for age and clinic, significant differences between dual-method users and non–dual-method users remain for impulsivity, self-esteem, social support, relationship style, partner communication self-efficacy, and fear of condom negotiation.

The prevalence of dual-method use among young African American girls was low (14.6%), although it was higher than reported in national surveys of adolescent girls (6.6% and 8.5%) and similar to that reported in another sample of adolescent African American girls (13.5%). Our findings replicate others suggesting that dual-method users were younger and felt more self-efficacious to talk about sexually related topics, including condom use, with sex partners. However, we extend the empirical literature by identifying several other individual-level, interpersonal-level, and community-level factors that significantly differentiate dual-method users from non–dual-method users. For instance, we identified a marked difference in dual-method use among young women at the 3 recruitment clinics. Identifying potential factors associated with dual-method use at more than the individual-level provides a multifaceted understanding of the problem that may guide development of intervention efforts to increase dual-method use among young African American women.

The findings have clinical practice implications for reducing the risk of unintended pregnancy and STDs among adolescents. First, providers who interface with adolescents will routinely need to assess the frequency of adolescent patients’ use of dual protection to avoid pregnancy and STDs. There is, however, limited guidance, specifically regarding how best to assess dual-protection use. Moreover, the extent to which pediatricians/adolescent providers are actually monitoring adolescents’ dual-protection use is unclear. In a recent study by the American Academy of Pediatrics of pediatricians who provide reproductive health services, 61.2% and 60.8%, respectively, described always discussing contraception and condoms with adolescent patients at preventive care visits. However, it is unclear whether contraceptive use and condom use were independently discussed rather than being linked as a way to assess the frequency of adolescents’ dual-method use.

Second, pediatricians/adolescent providers, regardless of venue or clinic type (eg, STD clinic, reproductive health clinic, or teen services clinic) will need to broaden prevention messages to specifically include dual-method protection. Published recommendations to encourage providers to convey information about STD/HIV infection to their adolescent patients and to assist adolescents in understanding the responsibilities of their sexual behavior have primarily focused on promoting consistent and appropriate use of latex condoms during sexual intercourse. While consistent condom use is a dual-protection strategy, as condoms are effective in reducing the risk of STDs as well as pregnancy, there is evidence that adolescents may overestimate their condom use, inaccurately report their level of condom use, and experience condom use errors that markedly degrade the protective capability of condoms. Thus, the prevention message for all sexually active girls needs to be dual-pronged for optimal protection (ie, the use of condoms and another form of effective contraception).

Third, innovative clinic-based approaches are needed to improve dual-protection use. One strategy is to use the clinical interaction between the provider and adolescent patient as an opportunity to provide high-intensity counseling. The US Preventive Services Task Force recommends high-intensity behavioral counseling to prevent STDs for all sexually active adolescents. Although effective interventions for girls exist, most are impractical for relatively brief pediatrician-patient interactions in clinical venues. Thus, it would be beneficial, from a practice perspective, to enhance providers’ counseling skills by using newly developed behavior-change theory and techniques such as motivational interviewing which can be seamlessly integrated into pediatrician counseling and used during a clinical encounter. Of course, like any new skill, an investment of time is required to become proficient with this counseling technique.

Fourth, while most providers who were engaged in providing reproductive health services surveyed by the American Academy of Pediatrics thought that personalized preventive counseling was effective in reducing high-risk sexual behaviors, 76% believed they did not have sufficient time to provide such counseling. This may be related to both volume of patients and lack of reimburs-

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**Table 4. Differences in All Factors by Dual-Method Use or Non–Dual-Method Use, Adjusting for Age and Clinic**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Mean (SE)</th>
<th>Dual</th>
<th>Non Dual</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual-level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-esteem</td>
<td>35.49 (.50)</td>
<td>33.66 (.21)</td>
<td>.001 a</td>
<td></td>
</tr>
<tr>
<td>Impulsivity</td>
<td>36.68 (.74)</td>
<td>39.06 (.31)</td>
<td>.003 a</td>
<td></td>
</tr>
<tr>
<td>Alcohol use in past 90 d</td>
<td>3.01 (.96)</td>
<td>4.32 (.38)</td>
<td>.20</td>
<td></td>
</tr>
<tr>
<td>Marijuana use in past 90 d</td>
<td>6.57 (2.86)</td>
<td>12.15 (1.14)</td>
<td>.07</td>
<td></td>
</tr>
<tr>
<td><strong>Interpersonal-level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social support</td>
<td>37.17 (.58)</td>
<td>35.74 (.24)</td>
<td>.02 a</td>
<td></td>
</tr>
<tr>
<td>Secure relationship style</td>
<td>3.28 (.10)</td>
<td>2.93 (.04)</td>
<td>.002 a</td>
<td></td>
</tr>
<tr>
<td>Fearful relationship style</td>
<td>2.15 (.11)</td>
<td>2.42 (.05)</td>
<td>.04 a</td>
<td></td>
</tr>
<tr>
<td>Interpersonal communication</td>
<td>7.66 (.32)</td>
<td>8.36 (.13)</td>
<td>.04 a</td>
<td></td>
</tr>
<tr>
<td>Partner communication self-efficacy</td>
<td>21.28 (.35)</td>
<td>20.44 (.15)</td>
<td>.03 a</td>
<td></td>
</tr>
<tr>
<td>Parent-adolescent communication</td>
<td>14.23 (.48)</td>
<td>13.27 (.20)</td>
<td>.07</td>
<td></td>
</tr>
</tbody>
</table>

a Remains significant at P < .05 level after adjusting for age and clinic.
able time for providing preventive counseling. In general, although a variety of possible approaches for facilitating the integration of a broader array of sexual risk-reduction activities into clinical practice exist, to facilitate the adoption and delivery of these preventive services will require resources or an adequate system for financing and provider reimbursement.

Finally, given the cost and time constraints of the clinical interaction between providers and adolescent patients, it is conceivable that the next generation of clinic-based sexual risk–reduction programs will need to adopt a 2-tier system of providing preventive counseling. In this system, at-risk adolescents could initially be triaged by their provider for preventive counseling delivered in the clinic. Subsequently, adolescents would be referred to community-based prevention services designed to extend, reinforce, and amplify prevention messages from providers (ie, extend beyond addressing only individual-level factors to include relational factors such as partner and parent communication). This approach would necessitate developing an inventory of community-based services and tailoring referrals based on type of risk practices (eg, drug use, abuse history), possibly sex (eg, sex-appropriate intervention programs), and perhaps race/ethnicity (eg, race/ethnicity-appropriate intervention programs). In essence, the pediatrician or adolescent health care provider acts as both a provider of prevention services and a broker of out-of-clinic prevention services by linking adolescents with service agencies that can continue to engage youth in more intensive, tailored, long-term sexual risk-reduction programs.

This study is not without limitations. First, the sample consisted of young women who were already seeking services at local sexual health clinics and therefore may not be generalizable to individuals who are not accessing similar clinics or to individuals who did not meet the eligibility criteria for the parent study (eg, engaged in unprotected sex in the past 6 months or trying to get pregnant). Additionally, our findings may not generalize to African American girls who reside in other geographical areas of the United States. Further, given our narrow definition of dual-method use, our findings may not be comparable with other studies that use different definitions of dual-method use. Finally, it is important to acknowledge that several potentially important factors that could be associated with dual-method use, including societal-level factors like media messages and cultural beliefs, were not assessed.

The identification of factors differentiating dual-method users from non–dual-method users at the individual, interpersonal, and community levels in this sample of young African American women has significant implications for both clinical practice and the design of HIV/STD/unintended pregnancy risk-reduction programs. Given the high rates of both STDs and unintended pregnancy among young African American women and low prevalence of dual-method protection use, the design of HIV/STD risk–reduction programs for African American adolescent girls should include an unintended pregnancy prevention component and, likewise, pregnancy prevention programs should include an STD/HIV risk-reduction component. Moreover, all STD/unintended pregnancy prevention efforts should address, whenever feasible, factors beyond the individual in an attempt to reduce sexual risk taking and the adverse consequences of unintended pregnancy and STDs.

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