Sexual Victimization and Reproductive Health Outcomes in Urban Youth

Maria Trent, MD, MPH; Gretchen Clum, PhD; Kathleen M. Roche, MSW, PhD

Objective.—Adolescents and adults with a history of sexual victimization (SV) are at increased risk of engaging in sexual risk behaviors. This study seeks to examine race- and gender-based differences in SV as well as the association between SV and reproductive health outcomes (pregnancy and sexually transmitted infections [STIs]) among young adults from an urban community with high rates of both outcomes.

Methods.—This study used cross-sectional data from the Young Adult Survey of the Baltimore Prevention Program’s intervention trials. Participants initially enrolled as first graders were interviewed for the Young Adult Survey as they entered adulthood. A total of 1698 participants were asked about SV, pregnancy, and STIs. Data were analyzed by logistic regression analysis.

Results.—History of SV did not vary by racial background, but female participants were more likely to report SV than their male peers. Results for models predicting STIs revealed a significant interaction between gender and SV. Adolescent girls who reported a SV were significantly more likely to have an STI than adolescent girls who did not report victimization. Both adolescent boys and girls who reported SV were more likely to report involvement in a pregnancy.

Conclusions.—Youth in urban communities with a history of SV are far more likely than those without victimization histories to have a pregnancy or STI before young adulthood. Further research is needed to explore the mediators of these outcomes and the value of sexual safety and child protection programs for pregnancy and STI prevention in urban environments.

KEY WORDS: adolescents; pregnancy; sexual victimization; sexually transmitted infection

Ambulatory Pediatrics 2007;7:313–316

Sexual victimization of children and adolescents has been identified as a public health problem in the United States.1 Data from national samples estimate that between 7% to 9% of adolescents report a history of forced intercourse, and 9% are involved in dating violence.2,3 Although these estimates are informative about the general population of in-school youth in the United States, they likely represent substantial underestimates of the problem of sexual victimization (SV) in high-risk populations such as low-income youth living in this country’s central cities.4,5 Among adolescent and young adult women, 18% to 25% had been subject to either verbal sexual coercion or attempted/completed acquaintance rape in the past year.6,7

Public health concern over SV largely stems from the strong links between childhood SV and subsequent mental health problems as well as increased sexual risk–related outcomes in adolescence.8,9 Abused boys and girls are more likely to have intercourse at earlier ages, more sexual partners than their peers, and increased problems with substance abuse.10 These behaviors put them at risk for acquiring sexually transmitted infections (STIs),11,12 becoming pregnant, or getting someone pregnant.13 Despite heightened risks of STIs and early pregnancy among youth living in urban, racially segregated urban communities, few studies have focused on this population. As such, the objectives of this study are to determine whether there are race- and gender-based differences in SV among urban youth, and to explore the association between SV and reproductive health outcomes among young adults in an urban community.

METHODS

Study Sample

This study used secondary analysis of cross-sectional data from the Young Adult Survey of the Baltimore Prevention Program. This program—a collaborative project between the Baltimore City Public Schools, the Prevention Research Center of the Johns Hopkins School of Public Health, and the community—aimed to identify early risk behaviors for poor achievement.

Participants were originally enrolled in the 1985–1986 school year as first graders. Participants were recruited from 43 different classrooms from 19 different elementary schools in Baltimore. Although Baltimore is a large city with a rich historical legacy and institutional resources, it has limited racial/ethnic diversity, with segregation by race14 and a disproportionate number of poor families with limited educational attainment when compared with statewide data.15 The Johns Hopkins Bloomberg School of Medicine...
Public Health Institutional Review Board approved the Baltimore Prevention Program study.

The Young Adult Survey was conducted as participants entered young adulthood (ages 19–20 years). A team of trained field interviewers by using a standardized telephone interview protocol collected data. Participants were included in the analysis if their survey included the SV questions, and if they self-identified as being black or white. Participants from other racial groups were not included in the analysis as each represented less than 1% of the total sample. A total of 1698 participants remained in the final analysis.

Measures

The interviews asked participants about SV, pregnancy, and STIs. We used the following question to determine SV: “Has anyone ever done something sexual to you that you did not want them to?” The following question provided information about history of forced intercourse: “Has anyone ever used physical or verbal force to make you have sex with them?” We used these 2 victimization variables to compute a summary of any type of victimization. Although the primary analysis uses the summary measure, sensitivity analyses were conducted that explored the role of forced intercourse on the observations seen. Throughout, we will use 2 measures in the analyses: first, sexual victimization (SV; reported unwanted sexual acts and/or forced intercourse); and second, sexual victimization with forced intercourse (SVFI).

We used the following question to determine whether the respondent had had an STI: “Have you ever had a sexually transmitted disease?” Previous pregnancy or involvement in pregnancy was assessed with the question: “How many times have you been/gotten someone pregnant, including current pregnancies, abortions, and stillbirths?”

Statistical Analyses

Descriptive analyses and χ² tests were used to explore univariate relationships. Multivariate relationships were analyzed by logistic regression analyses in which history of pregnancy and STIs were each regressed on SV. The SV, pregnancy, and STI history variables were dichotomized for use in analyses (ever/never).

Race and gender were evaluated as potential confounders in the relationships between victimization and our study outcomes by using the change in estimate approach.16 We also tested for an interaction of race and gender on the relationship between SV and the reproductive health outcomes.17 The threshold for considering interactions significant was 0.1. Separate logistic regressions were conducted for both the pregnancy and STI outcomes. Stratified reports were generated for models for which an interaction was present for comparison.

RESULTS

Selected Population Characteristics

The mean age of participants was 20 (± 0.85 SD) years. Fifty-four percent of study participants were girls and 46% were boys. Seventy-one percent of the sample was black and 29% were white. Of the participants who reported SV, 54% were victimized before or during elementary school, 54% during middle or high school, and 14% since high school. These categories are not mutually exclusive because participants may have been abused through multiple developmental periods as defined by our study. Twelve percent of participants reported SV during more than one period.

Pregnancy, STI, and Victimization History

Forty-seven percent of respondents were involved in a pregnancy, 19% experienced an STI before their young adult interview, and 16% of all study participants reported a history of either SV or SVFI. Of participants who reported SV, 51% also reported SVFI. Although there were no gender differences in reports of SVFI, a significantly smaller proportion of adolescent boys (10%) than girls (25%) reported a history of SV (χ² = 41.6; P < .001). There was no significant difference in rates of SV or SVFI by race (χ² = 0.28; P = .6).

SV, Gender, and Race

In main effects models, female participants were 2.6 times more likely to report SV than their male peers (odds ratio [OR], 2.6; 95% confidence interval [95% CI], 1.9; 3.5 (P < .001). There were no statistically significant differences in the rates of SV (OR, 1.1; 95% CI, 0.8, 1.4, P = 0.6) or SVFI (OR, 0.7, 95% CI, 0.4, 1.1) reported by race.

SV and Reproductive Health Outcomes

Victimization and STIs

Thirty-two percent of SV participants reported a history of STI compared with 15% of nonvictimized participants. Logistic regression models predicting STIs revealed a significant interaction between gender and SV. Adolescent girls who reported a history of SV and SVFI were significantly more likely to report a history of STI (data controlled for race), whereas there was no significant relationship in adolescent boys (Table 1).

Victimization and Pregnancy

Sixty percent of participants reported history of pregnancy or getting someone pregnant compared with 44% of

<table>
<thead>
<tr>
<th>Finding</th>
<th>Odds Ratio (95% CI)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy</td>
<td></td>
</tr>
<tr>
<td>Sexual victimization</td>
<td>1.8 (1.3, 2.7)</td>
</tr>
<tr>
<td>Sexual victimization with forced intercourse</td>
<td>2.1 (1.3, 3.4)</td>
</tr>
<tr>
<td>Sexually transmitted infection</td>
<td></td>
</tr>
<tr>
<td>Sexual victimization</td>
<td>3.1 (1.9, 5.2)</td>
</tr>
<tr>
<td>Sexual victimization with forced intercourse</td>
<td>3.8 (2.4, 6.0)</td>
</tr>
</tbody>
</table>

*95% CI indicates 95% confidence interval.
nonvictimized participants ($\chi^2 = 19.6; P < .001$). There were no significant age differences between those with a history of victimization (or by degree of victimization) than those who were not victimized. Unlike the gender effects observed for STIs, both adolescent boys and girls who had been victimized were more likely to report a pregnancy occurring before their young adult interview. Notably, adolescent boys with a history of SVF had twice the odds of having a pregnancy compared with their victimized female peers (Table 1).

**DISCUSSION**

Youth in urban communities with a history of SV are more likely than those without victimization histories to have a pregnancy or STI before young adulthood. This study demonstrates that rates of SV are significant in this sample of urban young adults. As is consistent with other studies, adolescent girls were more likely to experience SV than their male peers. Although girls who had been victimized were more likely to experience an STI than boys, both boys and girls who had been victimized were more likely to have a pregnancy outcome. In stratified analyses, adolescent boys had greater odds of being involved in a pregnancy when they experienced SVF. These data support previous work demonstrating the relationship between abuse and teen pregnancy among large statewide samples of adolescent boys in behavioral surveys. Our work further demonstrates the importance of this relationship in urban adolescent boys and suggests gender-based differences in pregnancy outcomes.

The finding that abused adolescent boys have an increased odds of pregnancy compared with their female peers who have been victimized and that STIs are not associated with victimization suggests that these 2 outcomes are not simply the result of high-risk sexual behavior, but may be a part of affirming masculinity through purposeful childbearing. SV is not only potentially traumatizing for boys, but violates gender norms. Male survivors of sexual abuse often report feelings of inadequacy and may embrace hypermasculine behaviors to counter concerns about their sexuality. Further, boys from urban environments often struggle with the development of a sense of self-worth. For adolescent boys who have experienced SV, fathering a child may be a means of addressing concerns about sexuality.

Although other studies have reported significant racial/ethnic differences in rates of SV, we did not observe this in our community sample. Because race is a socially and legally constructed measure that describes individuals who are linked by a shared history, phenotypic characteristics, and/or ancestry, there are other critical social factors, such as family structure, level of dysfunction, and/or economic status during childhood, that remain unaccounted for, but that likely affect families across racial lines. Youth from this community probably share many social circumstances despite segregation by race. This notion is supported by the work of Wyatt and colleagues, which demonstrated that race/ethnicity was not an independent predictor of human immunodeficiency virus–related risk, but rather limited resources, high-risk sexual behavior, and exposure to violence. One area, however, in which race has consistently been found to be important in victimization research is related to the timing of disclosure of SV among affected youth.

The findings of this study must be considered in the context of several limitations. This is a cross-sectional analysis with past reports of SV, so causality cannot be inferred, and responses are subject to recall bias. However, SV is not a trivial event. Although some victimized youth may psychologically block events of SV from daily living, this would likely result in underreporting rather than overreporting, thus biasing the results toward the null. We report age of victimization for a subgroup of participants; however, we do not have this information for all participants. Although not including the age of victimization in the regression analyses lends less specificity to the work, we are able to capture other events that may have influenced the trajectory for exposed youth but would not have been identified by other approaches. Finally, this sample derives from a single urban community, so it has limited generalizability. However, given the paucity of investigations of race and gender in maltreatment research and the disproportionate effect that STIs and teen pregnancy have within the community described, our work adds additional information about race, gender, and victimization among urban youth to the field.

Additional research is warranted to explore the mediators of adverse health outcomes of sexually victimized urban youth and to assess the value of sexual safety/child protection programs in urban communities with health disparities associated with teen pregnancy and STIs. Until additional research is available that provides a deeper understanding of these reproductive health outcomes, STI and pregnancy prevention efforts should target both adolescent boys and girls of all racial/ethnic backgrounds with victimization histories.

**ACKNOWLEDGMENTS**

This study was supported by grants from the National Institutes of Health (grants MH42698, MH38725, and L32MD000660) and Centers for Disease Control and Prevention (grant R49 CCR318627). In addition, we thank Nicholas Ialongo for making the data available to our team, and Scott Hubbard for his assistance with data management and transfer of the necessary data to complete this project.

**REFERENCES**


