

## Original Studies

# Low Parental Monitoring Predicts Subsequent Pregnancy Among African-American Adolescent Females

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**Abstract.** *Study Objective:* Accumulating evidence suggests that parental monitoring is associated with adolescents' sexual risk behaviors. However, evidence associating low parental monitoring with greater odds of becoming pregnant has not been reported. The objective of this study was to prospectively assess the relationship of low perceived parental monitoring with incidence of biologically confirmed pregnancy among a sample of low-income African-American adolescent females.

*Design:* A prospective study.

*Setting and Participants:* African-American females 14–18 years of age were recruited from schools and health clinics in low-income neighborhoods. Adolescents completed an in-depth survey and interview at baseline and 6 months later. The study achieved an 85.7% baseline participation rate (n = 522) and 92% (n = 482) returned at follow-up. Only adolescents who initially tested negative for pregnancy were included in the analysis (n = 410).

*Main Outcome Measure:* Incidence of biologically assessed pregnancy.

*Results:* In controlled analyses, among adolescents testing negative for pregnancy at baseline, those who reported less parental monitoring were 2.5 times more likely to become pregnant in the 6-month follow-up period (AOR = 2.50, 95% CI = 1.1–5.9,  $P < .04$ ).

*Conclusion:* Low parental monitoring was prospectively associated with incidence of biologically confirmed pregnancy among minority adolescent females. This finding adds to a growing body of empirical literature that supports the value of parental monitoring as a protective factor in adolescents' lives. Interventions designed to increase parental monitoring or adolescent females' perceptions of their par-

ents' monitoring may be effective components of pregnancy prevention programs designed for minority youth.

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**Key Words.** African American Adolescents—Parental monitoring—Teenage pregnancy

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### Introduction

Recent evidence has suggested that parental monitoring may be an important protective factor against sexual risk behaviors that place adolescent females at risk of pregnancy and sexually transmitted diseases (STDs), including HIV infection.<sup>1</sup> In cross-sectional studies, more frequent parental monitoring has been associated with females' later age of sexual initiation, safer sex behaviors (e.g., fewer partners and less unprotected sex), and less frequent sexual intercourse.<sup>2–8</sup> Lower frequency of parental monitoring has been associated with a greater likelihood of adolescents testing positive for STDs, having risky sex partners, and not using condoms and other forms of contraception.<sup>9,10</sup> A recent prospective study found that parental monitoring was protective against sexual-risk behavior for African-American youth in their early adolescent years.<sup>11</sup>

To date, published studies have not investigated the impact of parental monitoring on subsequent incidence of pregnancy among adolescents. Accordingly, the purpose of this study was to prospectively assess the relationship of low perceived parental monitoring with incidence of biologically confirmed pregnancy among a sample of low-income African-American ad-

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olescent females. We chose to study African-American adolescents because the birth rate among these adolescent females (15–19 years of age) is much higher than that for all U.S. females of the same age (85.3 per 1000 vs. 51.1 per 1000).<sup>12</sup>

## Methods

### Study Sample

From December 1996 through April 1999 project recruiters screened 1130 female teens in adolescent medicine clinics, health department clinics, and school health classes to assess eligibility for participating in an HIV/STD prevention trial. Recruitment sites were in neighborhoods characterized by high rates of unemployment, substance abuse, violence, and STDs. Of those screened, 609 adolescents were eligible to participate in the study. Adolescents were eligible to participate in the trial if they were African-American females, between the ages of 14 and 18 at the time of enrollment, sexually active in the previous six months and provided written informed consent. Of those adolescents not eligible to participate, the majority (98%) were not sexually active. Of those eligible adolescents, 85.7% ( $N = 522$ ) were enrolled and subsequently completed baseline assessments. The majority of eligible teens who did not participate in the study were unavailable due to conflicts with their employment schedules. The study protocol was approved by the Institutional Review Board Committee on Human Research prior to implementation.

### Data Collection

Data collection was conducted at the University of Alabama Family Medicine Clinic and consisted of two components: a urine test for pregnancy and a self-administered survey that assessed adolescents' perceptions of their parents' monitoring. The survey was conducted in a group setting, with monitors providing assistance to adolescents with limited literacy and helping to assure confidentiality of responses. Adolescents were reimbursed \$20.00 for their participation in the data collection procedures. Adolescents returned 6 months later for a follow-up assessment comprised of a second pregnancy test. Of the adolescents completing baseline assessments ( $n = 522$ ), 92% ( $n = 482$ ) returned to complete 6-month follow-up assessments. Analyses were limited to adolescents who tested negative for pregnancy at baseline ( $n = 410$ ).

### Measures

Baseline levels of parental monitoring were assessed by two questions that asked adolescents if their parents (or parent figure) knew where they were and who they were with when not at school and away from

home. Adolescents responded to each item using a 5-point Likert scale ranging from 1 ("Never") to 5 ("Almost Always"). Adolescents were categorized into two groups: those responding "Almost Always" (5) to each of the two items were classified as exposed to more parental monitoring; the remainder were categorized as having less parental monitoring.

### Data Analysis

Statistical tests were conducted to identify covariates that could confound the analyses. Subsequently, baseline frequency of parent-adolescent communication about sex-related issues was identified as a covariate. This covariate was assessed by a 5-item scale that had good inter-item reliability (Cronbach's  $\alpha = .88$ ). Adolescents were asked how often, in the past 6 months, they had communicated with their parent(s) about sex, how to use condoms, protection from STDs, AIDS, and pregnancy.

Because adolescents were enrolled in an HIV prevention trial, assignment to condition (intervention vs. control) was also included as a covariate. To control for the observed covariates, logistic regression was used to calculate an adjusted odds ratio (AOR), the 95% confidence interval, and corresponding *P*-value, for the influence of parental monitoring on subsequent pregnancy.

## Results

Average age of the adolescents was 16.0 yr ( $SD = 1.2$ ). At the baseline assessment, about one-third (32.6%) of the adolescents reported they had ever been pregnant, with 12% ( $n = 16$ ) of these adolescents reporting two pregnancies. Several other descriptive measures were also assessed at baseline. Sixty percent of the adolescents reported they had used some form of contraception during their most recent episode of sexual intercourse. The majority of adolescents (61%) reported primary reliance on condoms as a contraceptive method, with 15% and 10% reporting reliance on Depo Provera and the pill, respectively. About one-fifth (22.5%) of the adolescents indicated at least some desire to become pregnant.

Prior pregnancy was not related to parental monitoring ( $P = .93$ ). Significant differences in pregnancy history were not found between adolescents who completed the follow-up assessment and those who only participated in the baseline assessment ( $P = .17$ ). Similarly, significant differences in level of parental monitoring were not found between adolescents who completed the follow-up assessment and those who only participated in the baseline assessment ( $P = .24$ ). Further, sociodemographic differences between those completing and those not completing both assessments were not found (e.g., adolescents' age and family structure, employment status of the parents, school enrollment, family receipt of welfare).

Of the adolescents completing both assessments, 88% (n = 410) tested negative for pregnancy at baseline. Of those testing negative at baseline, 35 (8.5%) tested positive for pregnancy at the follow-up assessment. Low parental monitoring was reported by 61.5% of the adolescents who completed both baseline and follow-up assessments. In controlled analyses, among adolescents testing negative for pregnancy at baseline, those who reported less parental monitoring were 2.5 times more likely to become pregnant in the 6-month follow-up period (AOR = 2.50, 95% CI = 1.1–5.9,  $P < .04$ ).

## Discussion

This finding adds to a growing body of empirical literature that supports the value of parental monitoring as a protective factor in adolescents' lives. The use of a prospective study design, in conjunction with biological assessment of the outcome measure, provides evidence suggesting that adolescents' increased perceptions of parental monitoring may be an important antecedent to preventing risk behaviors associated with conception. This observation is particularly important given the high rate of prior pregnancy among adolescents enrolled in the study.

Evidence suggests that knowledge-based approaches to reducing teen pregnancy are insufficient to change adolescents' sexual risk behavior.<sup>13</sup> Although the strategy of providing adolescents with enhanced life skills has been widely advocated as a method of reducing their risk behavior for pregnancy, evidence has not been published that supports the efficacy of this approach.<sup>13,14</sup> Our findings suggest an alternative approach to the problem of teen pregnancy. Further research should seek to identify how adolescents' perception of their parents' monitoring translates into risk or protective behavior for pregnancy. Research could also be conducted to determine the efficacy of clinic- and community-based interventions designed to promote parental monitoring. An important preliminary study has been reported, indicating the potential efficacy of parental monitoring interventions for achieving sexual risk reduction among adolescents.<sup>15</sup> In addition, our findings support the need for research that investigates the efficacy of family-level interventions designed to reduce adolescents' sexual risk behavior.<sup>16</sup> Finally, the findings support further investigation of prospective associations between adolescents' sexual risk behavior and family factors such as family connectedness<sup>17</sup> and parent-adolescent communication about sex-related issues.

## Limitations

These findings are limited by the use of a convenience sample. The sample was limited to African-American adolescent females residing in Birmingham, Alabama.

Therefore, the findings may not be generalized to other racial/ethnic groups, or to adolescents from different communities, particularly communities without the high rates of teen pregnancy reported among the current sample. Further research is needed with diverse adolescent populations to corroborate and extend our findings. The findings are also limited by reliance on adolescents' valid responses to the self-reported measures of perceived parental monitoring and frequency of parent-adolescent communication about sex-related issues.

## Conclusion

This prospective finding suggests that interventions designed to increase parental monitoring or adolescent females' perceptions of their parents' monitoring may be effective components of pregnancy prevention programs designed for minority youth.

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