



## Is perceived parental monitoring associated with sexual risk behaviors of young Black males?☆☆☆

Richard Crosby<sup>a,b,\*</sup>, Ivy Terrell<sup>c</sup>, Ryan Pasternak<sup>c</sup>

<sup>a</sup> College of Public Health at the University of Kentucky, Lexington, KY, USA

<sup>b</sup> The Kinsey Institute for Research in Sex, Gender, and Reproduction, Bloomington IN, USA

<sup>c</sup> Department of Pediatrics at Louisiana State University Health Sciences Center-New Orleans, LA, USA

### ARTICLE INFO

Available online 9 October 2015

#### Keywords:

Condoms  
Young Black men  
Sex  
Sexually transmitted diseases  
Sexual behavior  
Parental monitoring

### ABSTRACT

This study determined whether perceived parental monitoring is associated with any of twelve selected outcomes related to sexual risk behaviors of young Black males. Recruitment occurred in clinics diagnosing and treating sexually transmitted infections. Young Black males living with a parent or guardian ( $N = 324$ ) were administered a 9-item scale assessing level of perceived parental monitoring. The obtained range was 10–45, with higher scores representing more frequent monitoring. The mean was 29.3 ( $sd = 7.0$ ). Eight of the twelve outcomes had significant associations with perceived parental monitoring (all in a direction indicating a protective effect). Of these eight, five retained significance in age-adjusted models were ever causing a pregnancy, discussing pregnancy prevention, safer sex, and condom use with sex partners, and using a condom during the last act of penile–vaginal sex. Monitoring by a parent figure may be partly protective against conceiving a pregnancy for Black males 15–23 years of age.

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### Introduction

In the United States, young Black males (YBM) continue to be disproportionately likely to become infected with the human immunodeficiency virus (HIV) (Centers for Disease Control and Prevention [CDC], 2006, 2007, 2011). In parallel fashion, the epidemic of STIs in the U.S. disproportionately affects YBM (CDC, 2014). Further, YBM are significantly more likely than their White counterparts to conceive a pregnancy (Charlotte et al., 2012; Manlove et al., 2007). This triangle of epidemics among YBM can be addressed, in part, through multi-level interventions targeting reductions in sexual risk behaviors (Kirby et al., 2009).

One underinvestigated, but potentially valuable, level of intervention for YBM may be enhanced parental monitoring for those living with a parent or guardian. At least some evidence suggests that perceived parental monitoring (PPM) may be protective against sexual risk taking behaviors for youth in general (Crosby et al., 2002, 2003; DiClemente et al., 2001, 2006; Li et al., 2000; Voisin et al., 2006). Other evidence supports a potential effect for YBM, especially those who are very young, e.g., 9 to 16 years of age (Borawski et al., 2003; Li et al.,

2000; Rai et al., 2003). However, none of the studies published to date have specifically investigated the protective value of PPM against biologically confirmed acquisition of sexually transmitted infections (STIs) or against conceiving pregnancies. Moreover, the few studies investigating associations between PPM and unprotected sex among YBM (Borawski et al., 2003; Li et al., 2000) were based on community samples rather than clinical samples that provided a much greater prevalence of those engaging in risky sexual behaviors. Finally, to the best of our knowledge, all of the studies pertaining to PPM have operationalized the construct as being specific to parents only—the concept of “parental figures in the household” has been neglected.

Accordingly, this study broadly investigated the concept of PPM by asking YBM, “Who is the person (who lives in your house) who knows what you are doing most of the time?” Response alternatives included mother, father, grandmother, brother/sister, aunt, or other. Given this expanded operational definition of PPM, the purpose of this study was to determine whether PPM is associated with any of twelve selected outcomes related to sexual risk behaviors of YBM recruited from STI clinics located in three cities of the southern U.S.

### Methods

#### Study sample

A convenience sample of YBM was recruited for participation from a larger NIH-funded randomized controlled trial of a safer sex intervention

\* The authors have no conflicts of interest to report.

☆☆ This study was funded by a grant from the National Institute of Mental Health (R01MH083621) to the first author.

\* Corresponding author at: College of Public Health, 151 Washington Ave., Lexington, KY 40506-0003, USA.

E-mail address: [crosby@uky.edu](mailto:crosby@uky.edu) (R. Crosby).

program designed for this population. Only the baseline data from that trial were used for the current study, making it cross-sectional. Recruitment occurred in clinics that diagnose and treat STIs; most YBM attending the clinics were either referred through a partner notification system or self-referred based on dysuria or other issues they perceived as signs of a sexually transmissible infection. Only clinics located in the southern U.S. were considered for use in this study. Inclusion criteria were: (1) self-identification as Black/African American; (2) aged 15 to 23 years; (3) engaged in penile–vaginal sex at least once in the past two months; and (4) not knowingly HIV-positive. Recruitment occurred from approximately 2010 through 2012, in a primary site (New Orleans, LA) and two secondary sites (Baton Rouge, LA and Charlotte, NC). The overall study participation rate was 60.4% ( $N = 702$ ). For this secondary analysis, only YBM who reported living in a household that included a parent or guardian ( $N = 324$ ) were assessed for PPM and therefore included in the analyses.

### Study procedures

After providing assent, research assistants asked young men less than 18 years of age for their permission to contact one parent or guardian to obtain consent for study participation. YBM were clearly informed that contacting a parent would necessitate identifying the point their son had attended the clinic on that day; attempts to conceal this information were not deemed possible. Thus, YBM agreeing to have a research assistant contact their parents were tacitly agreeing to disclose their attendance to the clinic. Young men aged at least 18 years old provided written informed consent. After enrollment, an audio-computer-assisted self-interview (A-CASI) survey was administered. YBM were instructed in the use of a laptop computer to complete the A-CASI, which lasted approximately 30 min. The A-CASI was completed in a private area with a research assistant being available to clarify wording if needed. Young men were then asked to provide a urine specimen that would be analyzed for evidence of recent infection with Chlamydia and/or gonorrhea. At the conclusion of the baseline session, YBM were provided with a \$50 gift card as compensation for the time they spent completing the assessment procedures. The study protocol was approved by the institutional review boards at all participating sites.

### Measures

PPM was assessed with a 9-item modified version of the Silverberg Parental Monitoring Scale (Silverberg and Small, 1991). The scale yielded a Cronbach's alpha value of .80, indicating excellent reliability. Response options were provided on a 5-point scale ranging from 1 "never" to 5 "always." Thus, higher overall scores represented great levels of PPM.

The 12 sexual risk behaviors/outcomes were selected based on availability from the battery of questions used for the larger study. Five were based on pregnancy, with two of these asking if they had "ever gotten a girl pregnant" and if "there is a girl who is currently pregnant with your child?" Two more were based on preventing pregnancy: (1) whether they had discussed pregnancy prevention with sex partners in the past two months, and (2) whether they used condoms primarily to prevent pregnancy. The last of these five items assessed whether YBM currently desired to conceive a pregnancy. Five additional items were focused on safer sex, with four of these using a two-month recall period and the fifth sample assessing whether a condom was used the last time YBM had penetrative sex. The four items assessed: (1) whether YBM had any unprotected vaginal sex, (2) frequency of discussing safer sex with sex partners, (3) whether YBM discussed condom use with partners before having sex, and (4) being drunk or high when using condoms. The remaining two of the twelve items involved one question assessing whether YBM had ever been diagnosed with any entry in a list of sexually transmitted infections and a biological measure of prevalence for Chlamydia and/or gonorrhea. Urine specimens were shipped

to Quest Diagnostics (Madison, NJ, U.S.) and tested using the Gen Probe Aptima Combo 2 Assay, a target amplification nucleic acid probe test that utilizes target capture for the in vitro qualitative detection and differentiation of ribosomal RNA (rRNA) from *Chlamydia trachomatis* (CT) and/or *Neisseria gonorrhoeae* (GC) to diagnose urogenital disease. The study was not designed or funded to include HIV testing; however, each clinic offered routinely HIV testing services to these young men.

### Data analysis

The obtained range for the measure of PPM was 10–45. The mean was 29.3,  $sd = 7.0$ . The distribution met the assumptions of normality; therefore, it was preserved in its continuous form. Outcome measures assessed continuously, however, did not meet normality assumptions and thus were dichotomized for analysis. Independent groups t-tests were used to compare mean PPM scores between each level of the twelve dichotomous outcomes variables. Subsequently, a series of twelve logistic regression models were constructed to determine the age-adjusted significance level of PPM for each outcome. The adjustment for age was important given natural differences in maturity levels and degree of independence from parents across the age range of 15 to 23 years. Significance was defined by an alpha of .05. All analyses were conducted using SPSS, version 20.0.

## Results

### Characteristics of the sample

The mean age of the sample was 19.2 years (standard deviation [ $sd$ ] = 1.9 years). About one-half (51.9%) reported attending school. Most (54.3%) had graduated from high school. The vast majority (93.7%) received public assistance of some kind. The mean frequency of penile–vaginal sex in the past two months was 8.9 times ( $sd = 12.9$ ). The mean frequency of condom of unprotected penile–vaginal sex in the past two months was 4.7 times ( $sd = 11.4$ ). The mean number of sex partners over the lifetime was 17.6 ( $sd = 19.3$ ), with a mean of 2.7 ( $sd = 3.3$ ) for the past two months. Most (94.8%) self-reported having been diagnosed (by a clinician) with an STI in the past. Nucleic acid amplification testing of young men upon study enrollment found that 18.8% of participants tested positive for Chlamydia and/or gonorrhea.

### Bivariate findings

Table 1 displays the unadjusted, bivariate findings. As shown, eight of the twelve outcomes had significant associations with PPM (all in a direction indicating a protective effect). Significantly greater levels of PPM were observed for those who had never caused a pregnancy, who did not currently report that someone was pregnant with their child, and for those not having a history of multiple sexually transmissible infections. Also, significantly greater levels of PPM were observed for those engaging in five protective behaviors: (1) discussing pregnancy prevention with sex partners, (2) greater frequency of safer sex discussions with sex partners, (3) discussing condom use with partners before sex occurred, (4) use of condoms the last time sex occurred, and (5) not having any unprotected penile–vaginal sex in the two months prior to study enrollment.

Three of the non-significant outcomes were self-reported measures: not achieving significance were desire to conceive a pregnancy, recently being drunk or high while using condoms, and using condoms to prevent pregnancy. The final non-significant outcome was the biological measure of Chlamydia/gonorrhea.

**Table 1**  
Associations of selected outcomes with levels of perceived parental monitoring reported by young Black males.

| Outcomes                                                             | Mean PM score <sup>1</sup> | t    | df  | P     |
|----------------------------------------------------------------------|----------------------------|------|-----|-------|
| Ever caused a pregnancy                                              |                            |      |     |       |
| Yes (n = 129)                                                        | 27.7                       |      |     |       |
| No (n = 186)                                                         | 30.3                       | 3.03 | 313 | <.001 |
| Currently someone pregnant with your child?                          |                            |      |     |       |
| Yes (n = 39)                                                         | 26.77                      |      |     |       |
| No (n = 285)                                                         | 29.65                      | 2.41 | 322 | .016  |
| Desire to have someone pregnant with your child                      |                            |      |     |       |
| High (n = 153)                                                       | 28.59                      |      |     |       |
| Low (n = 171)                                                        | 29.94                      | 1.73 | 322 | .084  |
| Discussed pregnancy prevention with a partner (past 2 months)        |                            |      |     |       |
| Yes (n = 204)                                                        | 30.4                       |      |     |       |
| No (n = 120)                                                         | 27.37                      | 3.86 | 322 | <.001 |
| Frequency of safer sex discussions with sex partners (past 2 months) |                            |      |     |       |
| High (n = 149)                                                       | 31.3                       |      |     |       |
| Low (n = 169)                                                        | 27.7                       | 4.47 | 316 | <.001 |
| Discussed condom use with partner before having sex (past 2 months)  |                            |      |     |       |
| Yes (n = 168)                                                        | 30.38                      |      |     |       |
| No (n = 105)                                                         | 27.51                      | 3.36 | 271 | .001  |
| "I use condoms to prevent pregnancy"                                 |                            |      |     |       |
| Agree (n = 210)                                                      | 29.75                      |      |     |       |
| Disagree (n = 114)                                                   | 28.48                      | 1.55 | 322 | .13   |
| Used condoms at last sex                                             |                            |      |     |       |
| Yes (n = 177)                                                        | 30.11                      |      |     |       |
| No (n = 98)                                                          | 27.85                      | 2.77 | 273 | .006  |
| Any unprotected vaginal sex (past 2 months)                          |                            |      |     |       |
| Yes (n = 147)                                                        | 28.50                      |      |     |       |
| No (n = 177)                                                         | 29.97                      | 1.88 | 322 | .06   |
| Ever drunk or high while using condoms (past 2 months)               |                            |      |     |       |
| Yes (n = 116)                                                        | 28.71                      |      |     |       |
| No (n = 198)                                                         | 29.71                      | 1.23 | 312 | .22   |
| Reported ever being diagnosed with an STI on more than one occasion  |                            |      |     |       |
| Yes (n = 38)                                                         | 27.29                      |      |     |       |
| No (n = 269)                                                         | 29.77                      | 2.08 | 305 | .04   |
| Tested positive for Chlamydia and/or gonorrhea at study enrollment   |                            |      |     |       |
| Yes (n = 61)                                                         | 28.64                      |      |     |       |
| No (n = 253)                                                         | 29.33                      | .69  | 312 | .49   |

1. Parental monitoring scores ranged from 10 to 45; mean = 29.3, sd = 7.0.

**Table 2**  
Age-adjusted significance levels of selected outcomes with levels of perceived parental monitoring reported by young Black males.

| Outcomes                                                             | P-value PM | P-value age |
|----------------------------------------------------------------------|------------|-------------|
| Ever caused a pregnancy                                              | .03        | <.0001      |
| Currently someone pregnant with your child?                          | .15        | .001        |
| Desire to have someone pregnant with your child                      | .55        | .001        |
| Discussed pregnancy prevention with a partner (past 2 months)        | <.001      | .71         |
| Frequency of safer sex discussions with sex partners (past 2 months) | <.001      | .06         |
| Discussed condom use with partner before having sex (past 2 months)  | .002       | .99         |
| "I use condoms to prevent pregnancy"                                 | .08        | .31         |
| Used condoms at last sex                                             | .03        | .16         |
| Any unprotected vaginal sex (past 2 months)                          | .30        | .06         |
| Ever drunk or high while using condoms (past 2 months)               | .29        | .72         |
| Reported ever being diagnosed with an STI on more than one occasion  | .20        | .006        |
| Tested positive for Chlamydia and/or gonorrhea at study enrollment   | .42        | .61         |

1. Parental monitoring scores ranged from 10 to 45; mean = 29.3, sd = 7.0.

*Age-adjusted findings*

Table 2 displays the age-adjusted findings. As shown, of the four outcomes testing non-significant at the bivariate level, none became significant in the adjusted analyses. Further, three additional outcomes became non-significant: YBM reporting that somebody was currently pregnant with their child, having any unprotected penile–vaginal sex in the past 2 months, and reporting a history of two or more STIs. The five outcomes retaining significance in age-adjusted models were ever causing a pregnancy, discussing pregnancy prevention, safer sex, and condom use with sex partners, and using a condom during the last act of penile–vaginal sex.

**Discussion**

In this study of 324 YBM, a normal distribution was obtained for a 9-item measure of perceived parental monitoring. Mean scores for this distribution were significantly different for two-thirds of the selected outcomes measures. A protective effect of PPM was observed relative to ever causing a pregnancy and currently having someone pregnant. Protective effects were also observed for three measures of safer sex communication with female sex partners. Those reporting condom use at last sex also reported higher levels of PPM. Those having a self-reported history of only one STI (or for a small number of YBM, no STIs) also reported significantly higher levels of PPM. However, in age-adjusted analyses, this outcome and the outcome of currently having someone pregnant failed to maintain a significant association with PPM. Thus, the overall evidence from this study of YBM suggests "mixed" evidence supporting the protective value of PPM. For example, PPM appears to be protective against ever causing a pregnancy, but the same is not true against ever having more than one sexually transmitted infection (only 4.4% had never had an STI) or against testing positive for Chlamydia/gonorrhea upon study entry. The difference here may be attributable to the basic observation that STIs are spread through networks and thus network affiliation is a confounding variable that does not apply to causing pregnancy. PPM appeared to be protective against the last occasion of penile–vaginal sex being unprotected but, over a 2-month recall period, this effect was not found. In this instance, it is quite possible that the use of "last sex" as a proxy for a longer recall period was not reliable. Perhaps the one set of consistencies in these findings pertained to the three measures of safer sex communication with female sex partners; the evidence here clearly suggests a potential value of PPM as a psychosocial mediator of safer sex (although one that may not be strong enough to consistently achieve safer sex).

To the best of our knowledge, this is the first empirical investigation of PPM specifically conducted with a clinic-recruited sample of YBM. Moreover, this is the first investigation of PPM related to sexual risk behaviors among YBM older than 16 years of age. With a mean age of 19.2 years, the sample in the current study clearly represented youth in early adulthood. This is a novel test of a concept that has previously been applied to a much younger and far less risk-prone populations. Thus, finding that five of the twelve outcomes retained significance in the age-adjusted analyses was intriguing. Especially intriguing is the finding relative to ever conceiving a pregnancy. Although age is inherently confounded with any outcome that uses a recall period of "ever", the protective effect of PPM persisted after controlling for this problem. Consequently, one potential component of any multi-level intervention designed to rectify racial disparities in teen/early adulthood pregnancy may be increased parental monitoring for parents of YBM. Indeed, parents of YBM may need to be mobilized to increase their vigilance in monitoring their teens, even as they age into their early twenties.

The findings, however, also suggest that the promotion of parental monitoring to parents of later age YBM is not a universal solution to the prevention of issues that compromise sexual health. Unlike studies of young Black females (e.g., Crosby et al., 2003; DiClemente et al., 2001, 2006), for example, findings from the current study do not

support a protective effect of PPM against acquisition of STIs in YBM. Clearly, a spectrum of antecedents to STI acquisition has been identified for young populations (DiClemente and Crosby, 2003), including antecedents specific to the family (Davies et al., 2009).

### Limitations

Beyond the inevitable limitations of self-reported measures and the use of a convenience sample, the findings are limited by at least three factors. First, it is possible that YBM not living with a parent or guardian (excluded from this study) may indeed benefit from parental monitoring delivered by cell phones (text messaging, voice, instant messaging, Facebook messaging, etc.). Second, the A-CASI questionnaire did not assess the quality of the PPM. Certainly, parental monitoring can be provided in ways that are welcome and effective for teens/young adults or in ways that may alienate and lead to secrecy/avoidance. Also, the use of multiple bivariate tests may have contributed to an inflated chance of spurious significant findings. Finally, it is not known whether YBM in this sample are typical of those attending STI clinics in other areas of the southern U.S. and it is not known to what extent (if any) the findings from this clinic-based sample would apply to a community-based sample of YBM.

### Conclusions

In this unique sample of high-risk YBM, large numbers had been diagnosed with STIs (past and present) and extremely large percentages had conceived pregnancies. Using an expanded definition of PPM (one that accounts for concept of “parent figures” within the home) evidence supporting a protective effect of PPM against conceiving pregnancies, but not against STI acquisition, was found. Findings suggest that more frequent parental monitoring may be an important component in multi-level intervention programs designed to promote sexual health among older populations of YBM.

### Acknowledgement

This study was funded by a grant from the National Institute of Mental Health to the first author (R01MH083621).

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