



# Personal and family factors associated with virginity among African American male and female high school students



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## Introduction:

Much research has been conducted to identify a variety of risk and protective factors associated with teen initiation of sexual activity, pregnancy, childbearing, and/or infection with STI/HIV. Individual or personal factors, such as being male (vs. female), being Black or an ethnic minority (vs. being White), less frequent attendance at religious services, having more permissive attitudes toward premarital sex, and/or perceiving peers to have permissive sexual attitudes or behaviors, have all been associated with initiation of sexual intercourse among adolescents, especially at younger ages.

Conversely, family factors such as living in a two parent-home, higher parent income, higher level of parent education, parental disapproval of pre-marital sex, greater parental monitoring, greater parental involvement in school, higher quality of parent-child connectedness, and greater parent-child communication about sex, birth control, and STD/HIV have all been associated with less sexual risk among adolescents/teens.

It is important to note that most of the research conducted regarding adolescent sexuality has focused on adolescents/teens who had already initiated sexual intercourse. Fewer studies have examined factors associated with non-initiation of sexual intercourse (or "virginity") among adolescents, especially among older (high school-aged) teens, or among African American adolescents exclusively. In addition, few studies have examined what, if any, differences exist in personal and/or family factors associated with non-initiation of sexual intercourse based on students' gender. That was the purpose of this investigation.

## Methods:

### Survey Instrument

The *Adolescent Health Attitudes and Behaviors Survey* (AHABS), which included items from the Centers for Disease Control and Prevention's *Youth Risk Behavior Survey* (YRBS), the *Adolescent Curriculum Evaluation* (ACE), the *Youth Sensitive Survey* [McLeroy et al., unpublished], and the *Survey of Student Resources and Assets* by the Search Institute, was used in this investigation.

Nine items from the AHABS were used to assess personal factors among African American high school students, including youths' personal beliefs about when sexual intercourse was appropriate; level of involvement in academic, athletic, and religious activities/programs/services; perceived peer involvement in sexual intercourse; and perceived involvement of their "closest friends" in other risk behaviors (alcohol use, drug use, and getting in trouble).

Six items from the AHABS were utilized to assess family factors among African American high school students, including youths' family structure; family income; family communication about waiting to have sex; parental/family monitoring; parental/family discipline; and level of family involvement in school.

### Study Population

Data were collected from 8th, 10th and 12th grade students enrolled in two school cluster areas within the city of Columbia, South Carolina and a school cluster area in a suburb contiguous to the city. [NOTE: School cluster area refers to a 9th-12th grade high school and the 6th-8th grade middle school(s) and K-5th grade elementary schools that feed into the high school.]

The Office of Research and Evaluation in the school district, which regularly administers all district testing, administered the AHABS in January, 2004. Passive informed consent from parents/guardians was obtained prior to testing. The entire 8th, 10th and 12th grade populations attending school on the designated testing day were surveyed. Not included were students absent on the testing day, opt-out students without parent consent, blank answer forms, mutilated answer forms, and answer forms with less than 50 responses.

For the purpose of this investigation, only African-American high school (10th and 12th grade) students were included in the analyses.

### Participants

A total of 744 African American 10th (n=440) and 12th grade (n=304) students completed the AHABS. Over half (57.5%) of the respondents were female and 42.5% were male. Thirty-nine percent (n=178) of female students and 25% (n=89) of male students were consistent responders to two items indicating that they had not initiated sexual intercourse (or were "virgins").

Table 1: Likelihood of Being a Virgin by Personal Factors

Personal Factors	Virgin N (%)	Non-Virgin N (%)	Odds Ratio (95% CI) p-Value
I think it is ok for a girl to have sex only after marriage/long-term relationship (vs. other)	243 (92.0)	379 (70.8)	<b>4.74 (2.89 – 7.89) p&lt;0.001</b>
I think it is ok for a boy to have sex only after marriage/long-term relationship (vs. other)	235 (89.3)	333 (62.1)	<b>5.09 (3.37 – 7.97) p&lt;0.001</b>
I think none/some/half of girls of my age have had sexual intercourse (vs. most/all of them)	110 (41.8)	169 (31.2)	<b>1.57 (1.54 – 2.13) p=0.004</b>
I think none/some/half of boys of my age have had sexual intercourse (vs. most/all of them)	80 (30.3)	101 (18.8)	<b>1.89 (1.34 – 2.65) p&lt;0.001</b>
Involvement in sports for 3+ hours a week (vs. <3 hours a week)	108 (40.9)	223 (42.1)	0.96 (0.71 – 1.29) p=0.769
Involvement in church/religious services/programs for 3+ hours a week (vs. <3 hrs week)	130 (48.4)	236 (44.7)	1.22 (0.90 – 1.64) p=0.192
"Low" Perceived Peer Risk Score (vs. "High")	27 (10.1)	131 (24.1)	<b>0.35 (0.22 – 0.54) p&lt;0.001</b>

Table 2: Likelihood of Being a Virgin by Family Factors

Family Factors	Virgin N (%)	Non-Virgin N (%)	Odds Ratio (95% CI) p-Value
Live with both mother and father (vs. other)	125 (47.5)	176 (32.8)	<b>1.85 (1.37 – 2.50) p&lt;0.001</b>
Qualify for free/reduced lunch (vs. other)	160 (60.1)	306 (57.3)	1.12 (0.83 – 1.51) p=0.441
Strongly agree/agree family had lots of conversations about waiting to have sex (vs. other)	154 (57.7)	226 (42.1)	<b>1.88 (1.39 – 2.53) p&lt;0.001</b>
Strongly agree/agree parents monitor whereabouts and who with (vs. other)	242 (91.0)	454 (84.5)	<b>1.84 (1.16 – 3.04) p=0.009</b>
Strongly agree/agree parents have clear rules about what could/not do (vs. other)	218 (82.0)	387 (71.9)	<b>1.77 (1.24 – 2.57) p=0.002</b>
Family Involvement in School Score (Mean, Std Dev)	4.70 (2.58)	4.16 (2.55)	<b>0.52 (0.33 – 0.82) (p=0.005)</b>

Table 3: Likelihood of African American Male and Female High School Students Being a Virgin by Personal Factors

Personal Factors	Males			Females		
	Virgin N (%)	Non-Virgin N (%)	Odds Ratio (95% CI) p-Value	Virgin N (%)	Non-Virgin N (%)	Odds Ratio (95% CI) p-Value
I think it is ok for a girl to have sex only after marriage/long-term relationship (vs. other)	70 (82.3)	132 (51.1)	<b>4.45 (2.48 – 8.46) p&lt;0.001</b>	172 (96.6)	247 (89.1)	<b>3.48 (1.52 – 9.43) p=0.002</b>
I think it is ok for a boy to have sex only after marriage/long-term relationship (vs. other)	66 (78.6)	97 (37.5)	<b>6.12 (3.50 – 11.19) p&lt;0.001</b>	168 (94.4)	236 (86.1)	<b>2.92 (1.48 – 6.31) p=0.002</b>
I think that none/some/half of girls my age have had sexual intercourse (vs. most/all)	42 (49.4)	89 (33.9)	<b>1.90 (1.16 – 3.12) p=0.012</b>	67 (37.9)	80 (28.7)	<b>1.52 (1.02 – 2.26) p=0.042</b>
I think that none/some/half of boys my age have had sexual intercourse (vs. most/all)	37 (43.0)	63 (24.2)	<b>2.36 (1.41 – 3.94) p=0.001</b>	43 (24.3)	38 (13.7)	<b>2.03 (1.25 – 3.30) p=0.004</b>
Involvement in sports for 3+ hours a week (vs. <3 hrs a week)	44 (50.6)	123 (49.0)	1.06 (0.65 – 1.74) p=0.801	64 (36.3)	100 (35.9)	1.01 (0.69 – 1.50) p=0.932
Involvement in church/religious services/programs for 3+ hours a week (vs. <3 hrs a week)	44 (51.1)	97 (37.9)	<b>1.64 (1.00 – 2.69) p=0.049</b>	86 (48.8)	139 (49.8)	0.96 (0.66 – 1.40) p=0.842
"Low" Perceived Peer Risk Score vs. "High"	10 (11.4)	80 (30.5)	<b>0.29 (0.13 – 0.56) p&lt;0.001</b>	17 (9.6)	51 (18.2)	<b>0.47 (0.26 – 0.83) p=0.012</b>

Table 4: Likelihood of African American Male and Female High School Students Being a Virgin by Family Factors

Family Factors	Males			Females		
	Virgin N (%)	Non-Virgin N (%)	Odds Ratio (95% CI) p-Value	Virgin N (%)	Non-Virgin N (%)	Odds Ratio (95% CI) p-Value
Living with both mother and father (vs. other)	39 (44.3)	94 (34.9)	1.42 (0.89 – 2.32) p=0.161	87 (49.2)	84 (30.0)	<b>2.26 (1.53 – 3.34) p&lt;0.001</b>
Qualify for free/reduced price lunch (vs. other)	48 (53.9)	141 (54.7)	0.97 (0.60 – 1.58) p=0.907	112 (63.3)	165 (59.8)	1.15 (0.79 – 1.71) p=0.456
Strongly agree/agree had lots of conversations about waiting to have sex (vs. other)	41 (46.1)	107 (41.3)	1.21 (0.75 – 1.97) p=0.435	113 (63.5)	119 (42.8)	<b>2.32 (1.58 – 3.43) p&lt;0.001</b>
Strongly agree/agree parents monitor whereabouts and who with (vs. other)	84 (94.3)	205 (79.5)	<b>4.34 (1.84 – 12.80) p&lt;0.001</b>	158 (89.3)	249 (89.2)	1.00 (0.55 – 1.87) p=0.995
Strongly agree/agree parents have clear rules about what could/not do (vs. other)	81 (91.0)	191 (74.0)	<b>3.55 (1.72 – 8.32) p&lt;0.001</b>	137 (77.4)	196 (70.0)	1.46 (0.95 – 2.28) p=0.81
Family Involvement in School Score (Mean, Std Dev)	5.21 (2.49)	4.37 (2.43)	<b>0.31 (0.14 – 0.71) p=0.005</b>	4.43 (2.59)	3.97 (2.66)	0.58 (0.32 – 1.02) p=0.062

## Results:

Personal factors significantly associated with virginity among both males and females were beliefs about when sexual intercourse was appropriate for boys and girls their age, perceived involvement in sexual intercourse among girls and boys at their school, and perceived risk behaviors of their closest friends. Involvement in church/religious programs and services was associated with virginity in males only.

Different family factors were associated with virginity among males and females. Living with both parents and family communication about waiting to have sex were associated with virginity in females only, while parental monitoring, parental discipline, and family involvement in school were associated with virginity in boys only. (See Tables 1 thru 4).

## Limitations:

Because this was a cross-sectional and not longitudinal investigation, the researchers were not able to test whether a causal relationship existed between personal and/or family factors and non-initiation of sexual intercourse among African American high school students.

In addition, the definition of "sexual intercourse" in the survey was left open to interpretation. Thus, youth who reported that they had not had sexual intercourse and were labeled as "virgins" by the researchers, may have engaged in other sexual behaviors (such as oral and/or anal intercourse).

Other personal and family factors not assessed in this investigation may have been associated with non-initiation of sexual intercourse among African American male and/or female high school students.

## Discussion/Conclusion:

These results have significant implications for parents/families of African American youth, as well as youth serving agencies and public health professionals who focus on the promotion of sexual health and/or the postponement of sexual intercourse among African American high school students.

Programs should address perceived peer norms and beliefs held by both male and female high school students regarding the involvement of boys/girls at their school in sexual intercourse (as well as other sexual behaviors). In particular, data comparing actual vs. perceived sexual behaviors among youth should be compared and the influences of peer pressure and peer norms on sexual behavior should be discussed.

For African American female high school students, the importance of living in a two-parent home and communicating with parents about waiting to have sex were significantly associated with non-initiation of sexual intercourse.

For African American male high school students, attendance at church, as well as parental/family monitoring, discipline and involvement in school were significantly associated with non-initiation of sexual intercourse.



Thus, youth-serving organizations should work with parents/families of African American youth to build their communication skills to discuss a variety of sexuality issues, including the postponement of sexual intercourse, with their child(ren) and teach/train parents/families about the importance of parent-child connectedness, monitoring, and discipline.

## Future Research:

Additional longitudinal and/or qualitative research should be conducted to understand whether and/or the extent to which the personal and family factors identified in this investigation are associated with non-initiation of sexual intercourse among African American high school students. In addition, such research should explore the differences reported in family factors among African American male and female high school students to further understand their association with non-initiation of sexual intercourse.