

# Factors associated with sexual debut and depression among rural Jamaican adolescents

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# Background

Individual and family factors have been hypothesized to influence adolescent sexual behavior, but the extent to which this is true for adolescents in Jamaica as a whole and for those in rural areas in particular, has not been well studied

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It has also been hypothesized that adolescents who engage in sexual activity often regret their actions and this may predispose them to depression, the relationship between engagement in sexual activity and symptoms of depression among adolescents in this population remains largely unknown

# Objective

**To determine the influence of individual and family factors in the initiation of sexual activity among rural Jamaican adolescents and establish the relationship between sexual experience and self-reported depressive symptoms**

# Methods

## Participants:

- Students attending public high schools in a rural parish in Jamaica (n=748)
- Categorized into groups based on sexual experience, age at sexual debut, and depressive symptoms score
  - Data collection:
    - Questionnaire based on the Alabama rural Youth Survey Instrument
    - Depressive symptoms assessed with the short form of the Beck's Depression Inventory II (BDI II)

# Analysis

- Pearson's chi-square and student t-tests were used to compare baseline characteristics of adolescents who are sexually experienced and those who are not
- multivariable logistic regression was used to predict factors associated with sexual experience, early sexual debut, and symptoms of depression

# Results

**N: 748**

**Mean age: 16.3 ( $\pm 1.2$ ) years**

**Female: 65%; Living with both parents:  
312 (42%)**

**Sexually experienced: 469 (63%)**

**Mean age at sexual initiation:**

**Male: 11 years**

**Female: 15 years**

**Sexual experience before 16 years: 369  
(49%)**

# Table 1: Baseline characteristics

N(%), mean $\pm$ SD	All (748)	Sexual experience		P-value
		No (279)	Yes (469)	
<b>Socio-demographics</b>				
Age at time of survey	16.3 $\pm$ 1.2	16.0 $\pm$ 1.0	16.5 $\pm$ 1.2	<b>&lt;0.0001</b>
Female	484 (65)	226 (81)	258 (55)	<b>&lt;0.0001</b>
Attend comprehensive high school	545 (73)	224 (80)	321 (68)	<b>&lt;0.0001</b>
Goes home after school	559 (75)	224 (80)	335(71)	<b>0.007</b>
Hangs out with classmates	264 (35)	85 (31)	179 (38)	<b>0.03</b>
Hangs out with boyfriend/girlfriend	177 (25)	38 (14)	139(30)	<b>&lt;0.0001</b>

# Table 1: Baseline characteristics

N(%), mean $\pm$ SD	All (748)	Sexual experience		P- value
		No (279)	Yes (469)	
<b>Family characteristics</b>				
Parental monitoring	5.7 $\pm$ 0.1	5.2 $\pm$ 1.6	6.0 $\pm$ 2.0	<0.0001
Living with both parents	312 (42)	143 (51)	169 (36)	<0.0001
Maternal affection and support	7.4 $\pm$ 2.8	7.2 $\pm$ 2.7	7.6 $\pm$ 2.8	0.086
Paternal affection and support	10.0 $\pm$ 0.1	9.6 $\pm$ 3.7	10.3 $\pm$ 3.5	0.008
<b>Psychosocial variables</b>				
Depressive symptoms	2.8 $\pm$ 1.5	2.7 $\pm$ 0.8	3.0 $\pm$ 0.9	0.007
Norms about refraining from sex	13.4 $\pm$ 2.3	13.1 $\pm$ 2.2	13.6 $\pm$ 2.3	0.002
Norms about negative sexual outcomes	6.8 $\pm$ 0.9	6.8 $\pm$ 1.9	7.9 $\pm$ 1.8	<0.0001

# Table 2: Predictors of sexual experience, overall and by gender

	Odds ratio (OR), 95% Confidence Interval (CI)		
	Overall	Males (N=264)	Females (N=484)
Female	0.26 (0.18-0.37)	-	-
Age at time of survey	1.51 (1.30-1.76)	1.47 (1.07-2.02)	1.54 (1.29-1.84)
Hangs out with boyfriend or girlfriend	2.06 (1.35-3.17)	1.64 (0.74-3.64)	2.27 (1.37-3.76)
Living with both parents	0.50 (0.36-0.70)	0.61 (0.33-1.14)	0.45 (0.30-0.67)
Parental monitoring	1.19 (1.08-1.31)	1.19 (1.01-1.39)	1.20 (1.07-1.35)
Norms about refraining from sex	1.79 (1.27-2.52)	1.35 (0.71-2.56)	2.08 (1.38-3.13)
Depressive symptoms	1.59 (1.003-2.52)	2.85 (0.80-10.10)	1.45 (0.84-2.56)

# Table 3: Predictors of sexual experience before age 16 years

	Odds ratio, 95% CI		
	Overall	Males (N=102)	Females (N=367)
<b>Female</b>	<b>0.16</b> <b>(0.07-0.36)</b>	<b>-</b>	<b>-</b>
<b>Age at time of survey</b>	<b>0.40</b> <b>(0.32-0.52)</b>	<b>0.42</b> <b>(0.23-0.77)</b>	<b>0.39</b> <b>(0.30-0.52)</b>
<b>First sexual partner (not a steady boyfriend/girlfriend)</b>	<b>4.19</b> <b>(1.62-10.84)</b>	<b>1.28</b> <b>(0.31-5.32)</b>	<b>11.95</b> <b>(2.39-59.69)</b>
<b>Norms about negative sexual outcomes</b>	<b>1.34</b> <b>(1.34-2.87)</b>	<b>3.11</b> <b>(1.09-8.93)</b>	<b>1.83</b> <b>(1.21-2.77)</b>

# Table 4: Predictors of depressive symptoms (overall)

	<b>UnAdj OR</b>	<b>95% CI</b>	<b>P value</b>	<b>Adj. OR</b>	<b>95% CI</b>	<b>P value</b>
<b>Sexually experienced</b>	<b>1.60</b>	<b>1.02- 2.52</b>	<b>0.040</b>	<b>1.59</b>	<b>1.003- 2.52</b>	<b>0.049</b>
<b>Lack of maternal affection and support</b>	<b>4.07</b>	<b>2.62- 6.32</b>	<b>&lt;0.0001</b>	<b>4.06</b>	<b>2.61- 6.32</b>	<b>&lt;0.0001</b>

# Conclusions

**Sexual activity during adolescence is common among rural Jamaican adolescents, with similarities in proportion and predictors to what has been reported among comparable populations in the United States**

# Conclusions

**Education programs that will delay initiation of sexual activity need to start early before adolescents become sexually active. As most homes are female headed, establishing support systems for the mother to take care of their adolescent children may decrease the odds of depressive symptoms**

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