

Sexual Experience Among Emotionally and Behaviorally Disordered Students in Therapeutic Day
Schools: An Ecological Examination of Adolescent Risk

Geri R. Donenberg, Ph.D.^a

Erin Emerson, M.A.^a

Larry K. Brown, M.D.^b

Christopher Houck, Ph.D.^b

Mary Ellen Mackesy-Amiti, Ph.D.^c

^aUniversity of Illinois at Chicago, Institute for Juvenile Research, 1747 W. Roosevelt Road, Chicago, IL 60808. United States.

^bBradley/Hasbro Children's Research Center (BHCRC), Rhode Island Hospital and Brown Medical School, One Hoppin Street, Suite 204, Providence, RI 02903. United States.

^cUniversity of Illinois at Chicago, School of Public Health, Division of Epidemiology and Biostatistics, 1603 West Taylor Street, Chicago, IL 60612. United States.

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Abstract

Objective: This study examined gender differences in family, peer, partner, and mental health characteristics related to sexual experience among emotionally and behaviorally disordered students in therapeutic day schools, a population at elevated risk for negative sexual health outcomes.

Methods: A total of 417 13 – 20 year-old adolescents reported on their family functioning, peer and partner relationship characteristics, mental health problems, and self-reported sexual behavior.

Results: For boys and girls, peer influence and conduct problems predicted sexual experience, and family dysfunction was related to negative peer influence. Greater rejection sensitivity was related to less sexual experience for boys and girls. The final path model revealed indirect effects of family dysfunction on boys' but not girls' sexual experience.

Conclusions: Findings underscore the utility of an ecological approach to understand social and personal mechanisms that increase risk and mitigate negative outcomes among emotionally and behaviorally disordered boys and girls in therapeutic day schools.

Keywords: adolescents; sexual behavior; mental health; families; peers

Young people ages 15 – 24 years account for almost half of new sexually transmitted infections (STI) each year (Centers for Disease Control and Prevention, 2009a), placing them at increased risk for HIV. By the end of 2008, 68,600 13 – 24 year olds were living with HIV and almost 59% had undiagnosed HIV (Torian, Chen, Rhodes & Hall, 2011). Most adolescent HIV transmissions result from sexual risk taking (e.g., unprotected sex and multiple partners), and almost half of high school students report having had sexual intercourse (Eaton, Kann, Kinchen, et al., 2010). Important gender differences exist. Compared to boys, girls are more likely to test positive for an STI, report less consistent condom use, and endorse more sexual partners (Centers for Disease Control and Prevention, 2009b; Kan, Cheng, Landale, McHale, 2010). Understanding the mechanisms related to these gender differences is imperative to risk-reduction programming.

Adolescence is a period of experimentation, identity formation and risk taking, and most youth reach adulthood with minimal disruption. Teens with mental illness, however, have trouble negotiating this developmental stage, because they often lack accurate risk assessment, have a limited capacity to process information, and show poor affect regulation, impaired judgment, and restricted problem solving (Brown, Danovsky, Lourie, DiClemente & Ponton, 1997; Donenberg & Pao, 2005). These difficulties amplify risk for HIV transmission. Research consistently documents high rates of sexual risk taking among teens with emotional and behavior problems, including depression, delinquency, mania, and conduct problems (Brawner, Davis, Fannin, & Alexander, in press; Brown et al., 2010; Donenberg, Emerson, Bryant, Wilson, & Weber-Shifrin, 2001; Lehrer, Shrier, Gortmaker, & Buka, 2006; Shrier, Walls, Lops, & Feldman 2011). Still, less is known about teens whose problems are severe enough to warrant placement in therapeutic school settings.

Therapeutic schools exist for youth whose emotional and/or behavioral problems exceed the services available at public schools. Students who are unable to benefit from mainstreaming (i.e., regular education plus special education classes) or other personalized interventions offered

by the school (e.g., resource teacher, in-class aide), and who need full-time special education are placed in therapeutic schools. Whereas inpatient psychiatric hospitals serve teens in crisis and involve brief stays (less than one week), therapeutic schools provide longer-term alternative placements and teens live at home. Placements can last from a few weeks to years depending on the adolescent's needs. In addition to educational programming, teens receive a myriad of mental health services, and families often participate in treatment.

Therapeutic schools offer a unique and potentially ideal venue for sexual risk reduction and HIV prevention programs with a high risk population. First, there is extensive evidence that addressing mental health during HIV prevention interventions leads to more positive outcomes for participants (Sikkema, Watt, Drabkin, et al., 2010). Delivering risk reduction programs in a therapeutic school context would provide opportunities to incorporate mental health issues. Second, family-based HIV prevention may lead to more sustained positive outcomes for teens (Donenberg, Paikoff, & Pequegnat, 2006). Family involvement in therapeutic schools can be leveraged for sexual risk reduction efforts. Finally, engaging teachers and school-administrators in prevention efforts increases the potential for sustainability of risk reduction programs with demonstrated efficacy.

Drawing on a social-personal framework (Donenberg & Pao, 2005) and ecodevelopmental theory (Szapocznik & Coatsworth, 1999), this study examined the broader context of sexual risk among a large sample of teens attending therapeutic schools spanning two U.S. cities. The two frameworks extend well-known social cognitive models to include family factors, mental health issues, and peer and partner relationship characteristics associated with adolescent sexual behavior. Research supports linkages between each factor and adolescent risk taking. For example, adolescent sexual behavior is consistently linked to parenting styles (e.g., warmth, monitoring, permissiveness, parent-teen communication) (Belsky, Steinberg, Houts, et al., 2010; Donenberg,

Emerson, & Mackesy-Amiti, 2011; Donenberg, Bryant, Emerson, et al., 2003; Donenberg, Wilson, Emerson, & Bryant, 2002; Hadley, Brown, Lescano, et al., 2009; Kan et al., 2010; Nappi, Thakral, Kapungu, et al., 2009), negative peer influence (Buhi & Goodson, 2007), and relationship mechanisms (i.e., rejection sensitivity and the need for intimacy) (Corbett, Dickson-Gomez, Hilario, & Weeks, 2009; Marston, Hare, & Allen, 2010).

It is less clear how these domains operate together to explain adolescent risk, or the extent of these linkages for youth with mental health problems attending therapeutic schools. Past research has been inconsistent. Some studies suggest that peer sexual activity and peer norms, more than parental monitoring and disapproval, predict teen sexual behavior (Elkington, Bauermeister, Brackis-Cott, Dolezal, & Mellins, 2009; Hampton, McWatters, Jeffery, & Smith, 2005), whereas other studies suggest that parenting moderates the relationship between adolescent sexual behavior and peer influence (Rai, Stanton, Wu, et al., 2003). Poor parent-adolescent relationships may spur teens to pursue sexual experiences to compensate for strained family relationships, or protective family processes may reduce the likelihood that teens will associate with risky peers (Emerson, Donenberg, & Wilson, in press; Kogan, Brody, Gibbons, et al., 2010). Elkington, Bauermeister, and Zimmerman (2010) found that peer and parent factors together exerted a positive influence on youth condom use. Based on previous research, we test a potential framework (see Figure 1) for understanding the interrelationships among these characteristics.

Gender differences in sexual behavior and risk mechanisms (e.g., family functioning, peer influence, romantic relationships) pose important challenges for HIV prevention, because boys and girls may require different risk reduction approaches. Emotionally and behaviorally disordered girls report higher rates of sexual risk than boys, including less frequent and more inconsistent condom use (Donenberg et al., 2002; Seth, Lang, DiClemente, et al., 2012). This may be explained, in part, by boys having more direct control over using condoms and/or because

compared to boys, girls are less willing to risk conflict or loss for the sake of HIV prevention. Lastly, family processes may impact girls more than boys (Kan et al., 2010), and girls' sexual behavior appears to be more responsive to engaged parenting than boys' sexual behavior (Coley, Votruba-Drzal, & Schindler, 2009).

Despite their high-risk for serious negative health outcomes, few studies focus on teens whose emotional and behavioral problems are so severe that they cannot function in typical school settings. It is unclear whether previous research extends to this uniquely vulnerable group. This study examined the direct and indirect (through adolescent peer and partner relationship attitudes) associations of family functioning and family affective involvement on engagement in vaginal and/or anal sex among girls and boys attending therapeutic schools. We expected poorer family functioning and less parental involvement to be associated with a greater likelihood of sexual experience among boys and girls, although we hypothesized that the pathways would be stronger for girls because they are more impacted by family relationships. We expected more need for intimacy and greater fear of rejection to be related to an increased likelihood of sexual experience for girls but not boys, and we hypothesized that greater peer influence and more conduct and emotional problems would be related to sexual experience for both genders. Finally, we hypothesized that more family dysfunction and less parental warmth would be associated with a greater need for intimacy, more rejection sensitivity, and increased negative peer influence for girls more than boys, which in turn would be related to a greater likelihood of sexual experience.

Methods

Participants

This study is part of Project XXX, a 2-site (XXX, and XXX), 3-arm randomized controlled trial to reduce risky sexual behavior among 417 13-20 year-old girls and boys ($M=15.25$ years; $SD = 1.47$) in therapeutic day schools. Teens were excluded from the study if they were diagnosed

with a pervasive developmental disorder or active psychotic disorder, were known to be HIV positive, currently pregnant, or wards of the state in XXX because the XXX Department of Children and Family Services did not grant IRB approval. Ninety-three percent of families approached provided written consent and assent (N=32 refused consent/assent). Reasons for refusal were not collected. Youth completed baseline, 1-, 6-, and 12-month follow-up interviews. Consistent with Brown et al., (2010), we calculated the percentage of teens who met threshold or subthreshold criteria for psychiatric diagnoses on the Computerized Diagnostic Interview Schedule for Children (C-DISC) (Shaffer, Fisher, Lucas, Dulcan, & Schwab-Stone, 2000). Based on adolescent reports, 56% qualified for at least one diagnosis; 9.2% qualified for internalizing disorders alone (i.e., generalized anxiety, major depression, post-traumatic stress), 9.2% qualified for mania or hypomania, 26.4% qualified for externalizing disorders alone (i.e., conduct, oppositional defiant), and 11.2% qualified for comorbid internalizing and externalizing disorders.

Procedures

The institutional review boards at XXX and the XXX approved all study procedures. Therapeutic day school staff identified eligible youth and contacted parents to request consent to release their contact information to the research team. The project recruiter called parents to provide more detail, screen for eligibility, and schedule a home visit to obtain written consent. Youth provided assent at the school and completed the 75-minute baseline assessment via audio computer-assisted self-interview (ACASI). Research staff remained in the room to answer questions but sat at a distance to increase youth privacy. Teens received \$25 for completing the survey. This paper analyzed the baseline data from a 3-arm randomized controlled trial. All follow-up data were collected after the intervention was delivered. Hence, longitudinal analyses would change the focus of the paper and require extensive data manipulation to control for the impact of the intervention (e.g., arm, dosage, attendance).

Measures

Demographics. Teens reported their age, gender, race, and school grade.

Family functioning. Teens completed a shortened version of the Family Assessment Device (Epstein, Baldwin, & Bishop, 1983) to indicate family functioning and family affective involvement. Scale scores ranged from 1 to 4 with higher scores indicating greater family dysfunction. Extensive evidence of the measure's internal consistency, test-retest reliability, and criterion validity exist (Epstein et al., 1983; Miller, Epstein, Bishop & Keitner, 1985). Internal consistency in this paper was high for the 7-item affective involvement scale ($r=.80$) and 12-item general functioning scale ($r=.77$).

Peer and partner relationships. We used adapted versions of the Sanderson and Cantor (1995) need for intimacy scale and Downey and Feldman (1996) rejection sensitivity scale. Previous research indicates high internal consistency, concurrent and predictive validity for the need for intimacy scale (Sanderson & Cantor, 1995), and Downey and Feldman (1996) reported strong internal consistency ($\alpha=0.83$), test-retest reliabilities (0.83 and 0.78 for 3-week and 4-month retest intervals), and construct validity. Need for intimacy scores ranged from 8 to 40 with items on a 1 (disagree strongly) to 5 (agree strongly) scale. Higher scores indicated greater pursuit of intimacy. Internal consistency in this sample was high ($r = .90$). Fear of rejection was measured using five hypothetical interpersonal situations in which students reported their level of rejection concern from 1 (very unconcerned) to 6 (very concerned) and partner compliance with their request, from 1 (very likely) to 6 (very unlikely). Internal consistency in this sample was acceptable for concern ($r = .71$) and likelihood ($r = .73$). An overall rejection sensitivity score was computed with higher scores indicating greater rejection sensitivity.

Peer influence was assessed using six questions from the Health Questionnaire (HQ; Costa, Jessor, Fortenberry, & Donovan, 1996) measuring perceived peer support and approval of drinking

alcohol, smoking marijuana and cigarettes, and having sex. The HQ has strong reliability and validity (Donovan, Jessor, & Costa, 1991; Costa et al., 1996). Higher scores indicated more peer approval of drug use and sexual intercourse. The scale's internal consistency was strong in this study ($r=.86$).

Sexual behaviors. The AIDS Risk Behavior Assessment (ARBA) (Donenberg et al., 2001) is a computerized self-administered interview of adolescent sexual behavior, drug/alcohol use, and needle use associated with HIV infection. It uses a skip structure so that more detailed items do not follow screening questions answered negatively. Teens were asked about non-abusive sexual intercourse, defined as: "when a man puts his penis into a woman's vagina" (vaginal intercourse) and "when a man puts his penis into someone else's anus or butt" (anal intercourse). We examined teens' reports of 'ever had vaginal or anal sex' (yes/no).

Mental health. The Strengths and Difficulties Questionnaire (SDQ) is a brief screening for emotional, conduct, hyperactivity, and peer problems (Goodman, Meltzer, & Bailey, 1998). The emotional and conduct problems scales used in this study consist of five items ranging from 0 to 10 with higher scores indicating more problems. The SDQ has strong evidence of reliability and discriminant, predictive, and construct validity (Goodman et al., 1998; Goodman, 2001; Goodman & Goodman, 2009). Internal consistency in this study was moderate for emotional problems ($r = .75$) and fair for conduct problems ($r = .58$).

Data Analyses

Data analyses were conducted in two waves consistent with study goals. First, logistic and linear regression analyses examined the direct associations between theoretical predictors of risk behavior (mental health, peer influence, relationship attitudes and family factors) and between the predictors and 'ever had vaginal and/or anal sex', separately for boys and girls. Analyses tested hypothesized associations among variables indicated by the theoretical model, and site, age, and

race were included as covariates. Second, we conducted path analyses using Mplus version 6.1 to evaluate the theoretical model in Figure 1. A two-group (by gender) path model was tested to predict 'ever had vaginal or anal sex' from proximal predictors (mental health, peer influence, relationship attitudes) and distal predictors (family functioning). The model was fit using a robust weighted least squares estimator with a diagonal weight matrix (WLSMV estimator). This analysis fits a probit regression equation for the dichotomous outcome. Lastly, to test the equality of paths across gender, each parameter was constrained to be equal across groups, and the fit of the restricted model was compared to that of the unrestricted model using a chi-square difference test. Indirect effects of family functioning on sexual behavior and bias-corrected bootstrap confidence intervals were computed (see Table 3).

Results

Sample

The majority of therapeutic school students were male (70%), and the largest racial/ethnic group was non-Hispanic White (44%). African American/Black made up 26% of the sample, followed by Hispanics (19%). Most youth reported having a female (88%) and male (56%) caregiver in the home, and 52% were eligible for free or reduced-price lunch. Among students enrolled in therapeutic schools, the majority of girls (67%) and boys (56%) reported ever having vaginal or anal intercourse, and 74% of girls and 69% of boys who ever had sex reported having had vaginal/anal sex in the previous six months. Among sexually experienced therapeutic school students, 46% of girls and 37% of boys reported sexual activity with one partner in the past six months, and 30% of girls and 36% of boys reported sexual activity with two or more partners in the past six months. Nineteen percent of sexually experienced girls and 29% of sexually experienced boys reported anal sex in the past six months. Rates of inconsistent condom use were high during anal and vaginal sex among girls (69%, 57%) and boys (43%, 48%) respectively.

Wave 1: Direct relationships among model constructs

Several factors directly predicted ever having vaginal/anal sex among therapeutic school students, with peer influence as the strongest predictor (girls: OR = 6.09, $p=.000$; boys: OR = 2.73, $p=.000$), followed by conduct symptoms (girls: OR = 1.85, $p=.009$; boys: OR = 1.51, $p=.003$), and a protective effect of rejection sensitivity (girls: OR = 0.64, $p=.045$; boys: OR = 0.70, $p=.01$). Family dysfunction was related to negative peer influence (girls: $B = 0.25$, $p = .025$; boys: $B = 0.15$, $p = .013$), and conduct symptoms were associated with less family affective involvement (girls: $B = 0.33$, $p = .002$; boys: $B = 0.15$, $p = .012$). Emotional symptoms were associated with more general family dysfunction for girls ($B = 0.27$, $p = .014$), but less family affective involvement for boys ($B = 0.17$, $p = .002$) (see Table 2).

Wave 2: Path analysis

The model for 'ever had vaginal or anal sex' included negative peer influence, conduct problems, and rejection sensitivity as proximal predictors, and emotional problems, general family functioning and family affective involvement as distal predictors (see Figure 1). Negative peer influence, emotional problems, and conduct problems were each regressed on both general family functioning and family affective involvement, and rejection sensitivity was regressed on emotional problems. Age and race were included as direct predictors of the outcome, and site was included as a predictor of general family functioning and family affective involvement, as there were significant differences between the samples on these variables. Correlated errors were included for general family functioning and family affective involvement. Modification indices indicated that the model fit could be improved by including paths from race to emotional problems, and from age and conduct problems to peer influence. The resulting model fit adequately (chi-square [58] = 69.76, CFI = 0.963, RMSEA = 0.033), and explained 75% of the variance in the outcome for boys in therapeutic schools, and 44% for girls in therapeutic schools.

Path coefficients are shown in Figure 1; significant differences between parameter estimates for boys and girls are represented by dashed lines. For the outcome, path coefficients represent the expected change in the probit coefficient for the outcome given a 1-standard deviation change in the predictor. Indirect effects and bias-corrected bootstrap confidence intervals are shown in Table 3 (see supplemental table on-line).

For boys in therapeutic schools, the indirect effect of general family functioning through conduct problems to peer influence to sexual activity was significant, though small (Estimate = .036). The indirect effect of family affective involvement through conduct problems and peers was statistically significant (Estimate = .025). The indirect (protective) effect from family affective involvement through emotional problems and rejection sensitivity was also significant (Estimate = -.011). The indirect effects of general family functioning and family affective involvement were not statistically significant for girls.

Discussion

This study assessed social and personal mechanisms associated with ever having sex among emotionally and behaviorally disordered adolescents attending therapeutic schools. Girls and boys reported high rates of sexual behavior and substance use. Peer influence and conduct problems predicted sexual experience for boys and for girls, but important gender differences forecasted behavior. Both risk and protective factors were identified, and a broad array of social and personal mechanisms explained a relatively large amount of the variance in troubled boys' (75%) and girls' (44%) sexual experience.

Similar patterns across gender reinforce the important role of broad psychological and interpersonal factors in sexual behavior during adolescence for seriously troubled boys and girls. In logistic regression analyses for both genders, family dysfunction was related to negative peer influence, and low family involvement was related to more adolescent conduct problems. These

data support prior research linking family interactions with children's externalizing problems (Burke, Loeber, & Birmaher, 2002; Chronis, Lahey, Pelham, et al., 2007) and family dysfunction with negative peer influence (Miller, Benson, & Galbraith, 2001), suggesting that teens with troubled families associate with risky peers. Results extend the literature to seriously emotionally and behaviorally disordered teens whose family and peer relationships are often problematic, and underscore the role that families might play in mitigating teens' links to risky peers (Emerson et al., in press). Consistent with earlier studies, for boys and for girls, negative peer influence and conduct problems were related to ever having sex (McLeod & Knight, 2010). Taken together, these data support Problem Behavior Theory (Jessor & Jessor, 1977).

Surprisingly, the need for intimacy did not predict a history of sexual experience for boys or girls, but findings uncovered a protective effect of rejection sensitivity; both girls and boys who reported more sensitivity to rejection were less likely to be sexually experienced. Previous research reveals more rejection sensitivity among boys than girls (Marston et al., 2010). Emotionally and behaviorally disordered boys and girls often lack positive peer relationships and may sense rejection more acutely than their peers. A history of rejection may lead to avoidance of intimate relationships altogether, thereby reducing the likelihood of sexual opportunities. Still, while troubled teens may initially avoid intimate relationships, once they are in them, they may engage in riskier behavior than their peers to avoid subsequent rejection (Edwards & Barber, 2010).

Unexpectedly, relationship attitudes were not associated with family functioning for boys or girls. Perhaps for seriously troubled youth whose family relationships are often disturbed, youth come to depend on substitutes (e.g., teachers, other family members, peers) to inform their relationship expectations. These relationships may confer protection in ways that family relationships do not. Research focused on the role and influence of other adults in teens' lives is important to clarify this question.

Path analysis results revealed gender differences in the mechanisms of sexual experience and linkages between mental health problems and family functioning. Consistent with expectations, the pathway from negative peer influence to sexual experience was significantly stronger for girls than for boys. Also for girls, emotional symptoms were related to more family dysfunction, whereas for boys, emotional symptoms were linked to less family affective involvement and conduct problems were related to more family dysfunction. These findings provide new insight regarding the specificity of linkages between internalizing symptoms and poor family functioning in the lives of seriously troubled youth, and may reveal distinct responses by girls and boys to problematic family relationships. For example, girls may become depressed and anxious whereas boys may experience depression, anxiety, and more conduct problems.

The final path model revealed indirect effects of family dysfunction on boys' sexual experience. Both low family affective involvement and general family dysfunction were indirectly related to sexual experience through conduct problems and negative peers, underscoring the role of peers and mental health problems on risk taking in the context of family dysfunction. Similar to research on outpatient psychiatric samples, these data suggest that parents can mitigate the influence of negative peers on adolescent sexual behavior (Emerson et al., in press). Likewise, where families are dysfunctional, teens may turn to troubled peers to compensate for what is missing at home. Contrary to expectations, there was no indirect effect of family functioning on girls' sexual activity. Still, taken together, findings highlight the important role that parents and families play during adolescence and lend support to family-based interventions to reduce both mental health problems and sexual risk behavior (Donenberg et al., 2006).

Study limitations merit careful interpretation of the results. Cross-sectional data do not permit conclusions about temporal relationships. Longitudinal studies are needed to ascertain causation, such as whether family, peer, and partner characteristics precede or follow sexual

experience among therapeutic school youth. Factors associated with teens' sexual behavior in prior research (e.g., academic achievement) were not tested in this study and may play an important role in the advent of sexual activity for seriously troubled teens. Although all scale reliabilities were acceptable, some of the measures were adapted from the original instruments and this may impact comparisons with previous research. The number of girls in the sample was relatively small, limiting power to detect effects, particularly indirect relationships in the path model. Still, this research included one of the largest samples available of seriously emotionally and behaviorally disordered girls and provides new information about their risk and protective mechanisms. Data were adolescent self-reports. The study would have benefited from multiple informants and different types of data to minimize shared method variance. We cannot rule out the potential impact of social desirability concerning sexual behavior. However, evidence suggests that self-reported sexual behavior closely approximates actual behavior, especially when questions are administered using computer technology (Turner, Ku, Rogers, et al., 1998), as in the present study. Sexual behavior was defined as 'ever had sex' in order to maximize the sample size for data analyses. Other sexual behaviors (e.g., condom use, number of partners) may yield different patterns and confer greater risk, but given the young age of the sample, ever having vaginal or anal sex poses a distinct risk for HIV and deserves attention. Results may not generalize beyond therapeutic school youth, a population with serious emotional and behavior problems.

This study has implications for public health, psychiatry, and education. Adolescent HIV and STI transmission are public health priorities; one in four young people are infected with an STI, and STIs increase risk for HIV. Mental health problems amplify HIV-risk through impaired judgment, poor risk assessment, and dysfunctional interpersonal relationships. The prevention and intervention needs of teens with serious emotional and behavioral problems are extensive. School-based settings can be leveraged to provide needed programs to reach these vulnerable teens on a

broader scale. Findings underscore the need to address the full spectrum of mental health problems, family processes, and teens' peer influence to reduce their sexual risk. Therapeutic schools are an excellent venue to provide a full range of services. Teens are already receiving mental health care at therapeutic schools, and mental health practitioners can extend empirically-supported approaches for psychiatric problems (e.g., cognitive-behavioral therapy, emotion regulation) to HIV-risk reduction (Donenberg & Pao, 2005). For example, school counselors can help teens evaluate high-risk situations more accurately, recognize the link between feelings and behavior, and help teens resist negative peer influence. Similarly, therapeutic schools are an ideal setting to deliver family-based HIV-prevention programs, because parents are actively involved in their youths' education and care. Schools can capitalize on counselors' therapeutic relationship with families, educate parents about adolescent HIV-risk, and engage them in risk reduction efforts so they can continue prevention messages after formal interventions end.

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Table 1. Mental health, peer influence, relationship measures, and & family functioning on ever had vaginal or anal sex

	Male					Female				
	<i>Adj. OR</i>	<i>p</i>	<i>95% Conf. Int.</i>	<i>N</i>		<i>Adj. OR</i>	<i>p</i>	<i>95% Conf. Int.</i>	<i>N</i>	
General family functioning	1.06	0.678	0.82	1.36	287	1.41	0.104	0.93	2.15	125
Family affective involvement	1.16	0.274	0.89	1.51	287	1.49	0.056	0.99	2.26	125
Emotional symptoms	0.86	0.240	0.66	1.11	290	1.03	0.869	0.69	1.54	126
Conduct symptoms	1.51	0.003	1.15	1.97	290	1.85	0.009	1.16	2.94	126
Peer support of risky behavior	2.73	0.0005	1.98	3.76	286	6.09	0.0005	3.12	11.90	125
Need for intimacy ^a	0.93	0.622	0.70	1.24	251	0.96	0.847	0.63	1.46	118
Rejection sensitivity ^a	0.70	0.014	0.53	0.93	251	0.64	0.045	0.41	0.99	118

^a asked only of subjects who report liking someone as more than a friend or having a boyfriend/girlfriend

Note: odds ratios adjusted for site, race, and age

Table 2. Mental health, peer influence, & relationship measures on family functioning

	Male				Female					
	<i>Coef.</i>	<i>p</i>	<i>95% Conf. Int.</i>		<i>N</i>	<i>Coef.</i>	<i>p</i>	<i>95% Conf. Int.</i>		<i>N</i>
Peer support of risky behavior					287					125
General family functioning	0.15	0.013	0.03	0.27		0.25	0.025	0.03	0.46	
Family affective involvement	0.10	0.126	-0.03	0.22		0.05	0.642	-0.17	0.27	
Emotional symptoms					288					125
General family functioning	0.08	0.183	-0.04	0.20		0.27	0.016	0.05	0.49	
Family affective involvement	0.17	0.006	0.05	0.29		-0.04	0.700	-0.26	0.18	
Conduct problems					288					125
General family functioning	0.30	0.0005	0.03	0.27		0.02	0.867	-0.19	0.23	
Family affective involvement	0.15	0.012	0.18	0.41		0.33	0.003	0.11	0.54	
Need for intimacy ^a					252					118
General family functioning	-0.12	0.072	-0.26	0.01		-0.07	0.591	-0.31	0.18	
Family affective involvement	0.10	0.166	-0.04	0.23		0.07	0.556	-0.17	0.32	
Rejection sensitivity ^a					252					118
General family functioning	0.06	0.350	-0.07	0.20		0.12	0.300	-0.11	0.36	
Family affective involvement	0.06	0.357	-0.07	0.20		-0.21	0.093	-0.45	0.04	

^a asked only of subjects who report liking someone as more than a friend or having a boyfriend/girlfriend

Note: Measures are standardized within gender; analyses are adjusted for site, race, and age.

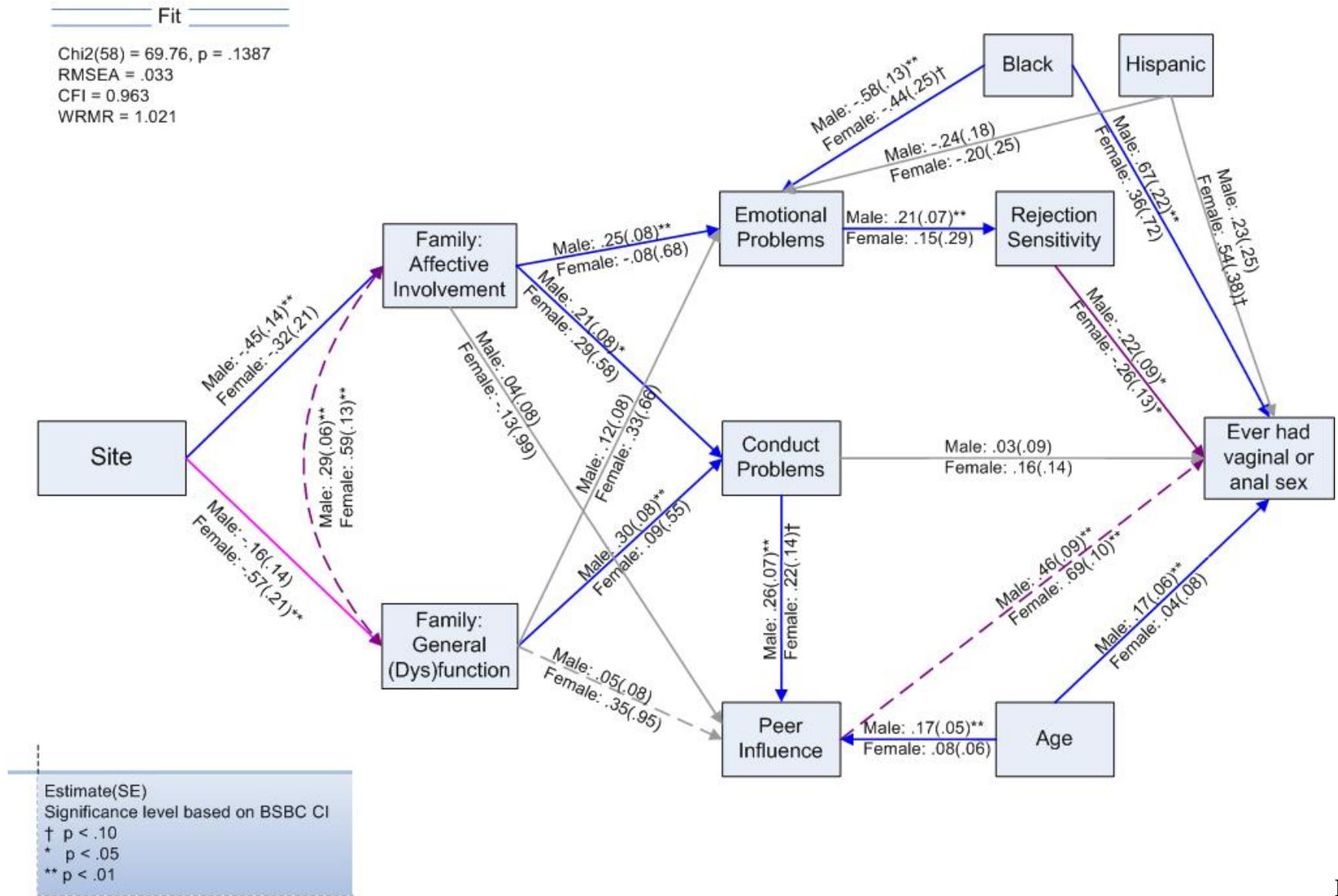


Figure 1. Path model