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### ${\bf IDENTITY\ EXPLORATION\ AND\ ADOLESCENTS'\ HIGH\ RISK\ SEXUAL\ BEHAVIORS:}$

A LONGITUDINAL ANALYSIS

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## IDENTITY EXPLORATION AND ADOLESCENTS' HIGH RISK SEXUAL BEHAVIORS: A LONGITUDINAL ANALYSIS

**Context:** Recent trends in American adolescents' sexual and fertility-related behaviors suggest the need to better understand processes associated with sexual risk-taking. Among sexually experienced youth, we prospectively examine two identities, i.e., self-identifying as a 'troublemaker' and self-identifying as 'popular with peers,' as predictors of sexual risk-taking in the past 12 months. Outcome variables include: (1) number of sexual partners; (2) involvement in non-dating sexual activity; (3) condom use; (4) becoming or causing a pregnancy; and (5) involvement in a regrettable sexual situation due to either being drunk or high.

**Methods:** Our study uses two waves from a longitudinal study of adolescents' relationships with parents, friends and romantic partners (the Toledo Adolescent Relationships Study). Participants are 503 white, Hispanic, and African-American sexually active male and female youth who were in grades seventh, ninth and eleventh at the time of the first interview. Relying on multiple regression and logistic regression models, self-identifying as a troublemaker or as popular with peers at the time of the first interview is used to predict high risk sexual behaviors at the time of the second interview. The models include gender interactions and controls for parental, peer, and sociodemographic characteristics associated with sexual risking behaviors.

**Results:** Findings suggest that self-identifying as popular at wave 1 is related to first pregnancy between waves net of background, parental monitoring and closeness, sexual attitudes, religiosity, and self-esteem. For males but not for females, popularity is associated with lower odds of condom use with most recent sexual partner. Self-identifying as a troublemaker is related to number of sexual partners, involvement in non-dating sexual activity, number of non-dating sexual partners, and involvement in a regrettable sexual situation due to being drunk or high, net of control variables. The effects of the troublemaker identity are not conditional on gender.

**Conclusions:** Both positive and negative identities can predict sexual risk-taking net of other known correlates. This suggests that by focusing on the patterning of social influences from parents and friends, sociodemographic background, and the motivational aspect of identities that guide sexual behavior, interventions could be better formulated, which offer youth opportunities to expand the intimacy skills necessary for adulthood, and to develop identities associated with healthier and more satisfying lives.

# IDENTITY EXPLORATION AND ADOLESCENTS' HIGH RISK SEXUAL BEHAVIORS: A LONGITUDINAL ANALYSIS

Recent trends among sexually experienced adolescents include earlier sexual activity,<sup>1</sup> a greater number of reported sexual partners,<sup>2</sup> increases in non-dating sexual experiences, inconsistent condom use,<sup>3</sup> and high rates of pregnancy or causing a pregnancy.<sup>4</sup> A growing body of literature suggests that adolescents' sexual risk-taking is influenced by parents,' friends' and romantic partners' attitudes and behaviors.<sup>5</sup> We argue, however, that while the attitudinal and behavioral influences of others are important, it is also essential to examine adolescents' own identity exploration as an influence on these same behaviors and decision making processes.

It is well accepted that both identity exploration and intimacy initiation are core developmental tasks of the adolescent period. However, because they developed as distinct literatures, these concepts typically are not examined in the same study. We view identity exploration as a likely predictor of adolescents' sexual and fertility-related behaviors. While controlling for known social and demographic correlates, we prospectively examine how sexually active adolescents' endorsement of specific identities, at the time of the first interview, might influence the occurrence of high risk sexual outcomes including involvement with a greater number of sexual partners, involvement in non-dating sexual activity, becoming or causing a pregnancy, inconsistent condom use, and involvement in regrettable sexual situations due to being intoxicated or high.

Although there are many conceptual treatments focusing on the importance of identity exploration during the adolescent period, including psychologist Erik Erickson's well-known work, attention to specific identities in connection with the dynamics of sexual behavior has not been investigated extensively. Coming out of the tradition of sociology the framework known

as symbolic interactionism emphasizes the reciprocal nature, meaning, and influence of (a) identities and (b) corresponding behavior, both of which are rooted in individuals' social and demographic backgrounds. Building on these basic premises, our view is that in the process of self exploration, identities sought by adolescents will foster a coherent, unified set of self-images and associated sexual activities congruent with these social niches. Matsueda and Heimer's<sup>9</sup> research further develops the symbolic interactionist's line of inquiry with respect to a related set of behaviors - delinquency involvement. Matsueda and Heimer draw attention to the developmental task of crafting a coherent social identity to understand how an adolescent begins a troubled or risk-taking lifestyle. They find that parents and peers can sway an adolescent's self-definitions and identities by providing evaluative appraisals, which in turn strengthen certain lines of action or behavior. For the adolescent, these reflected appraisals are implicated not only in participation in delinquent acts, but in the development of an identity, connected to a social niche, as the kind of person who causes trouble, takes risks, or is a juvenile delinquent. Through recurrent sequences of interaction, these self-views begin to solidify and corresponding delinquent conduct becomes a more integral part of the adolescent's behavioral inventory. As such, the troublemaker identity becomes a cognitive filter for decision making as the adolescent moves into the future and encounters new social situations. Consistent with these theoretical ideas, research shows that those youth who do define themselves as troublemakers or risk-takers are, indeed, more likely than others to engage in delinquent acts, underage drinking, truancy, and to perform poorly academically.<sup>10</sup>

Building on these ideas, we have begun a line of research that seeks to further understand the adolescent's life course patterns of sexual behavior.<sup>11</sup> We argue that for adolescents who take on particular identities, such as troublemaker, high risk sexual behavior is more likely, even after established or known risk factors (e.g., age, gender, race, family structure, socioeconomic

status, peer influences) have been taken into account. Thus, consistent with symbolic interactionists' premises we expect that identities will be consequential for motivating patterns of sexual behavior, as opposed to merely providing descriptions of or labels for behavioral patterns.<sup>12</sup>

In addition to focusing on self-identifying as a troublemaker, we examine the implications of self-defining as a person who is 'popular with peers.' We argue that high risk sexual behaviors differ in kind from other adolescent problem behaviors in that they are inherently relational in nature and may reflect increased opportunities associated with being socially adept or popular with one's friends. In other words, whereas the relationship between being a troublemaker and high risk sexual activity implicitly views sexual activity as a kind of 'acting out,' a second potentially important identity involves the adolescent's success within the social arena of friends and romantic interests. That is, being popular may also connect with high risk sexual behaviors through its association with greater opportunities.

Our prior work<sup>13</sup> has shown that these two specific components of adolescents' emerging identities (i.e., troublemaker and popular) are associated with the likelihood of engaging in first sexual intercourse, among a large sample of youth who were not sexually experienced at the time of the first interview. This finding held even after known parent, peer, and sociodemographic influences were taken into account. Moreover, the findings regarding gender reflect girls' and boys' differential treatment in the larger society. Popular girls were less likely than popular boys to report sexual debut within the one year period. On the other hand, both male and female adolescents who defined themselves as troublemakers were more likely than those who did not endorse this self-definition to have experienced first sexual intercourse between the time of the first and second interviews. Thus this earlier work supports our view that the manner in which youth define themselves has implications for sexual behavior.

Summarizing our theoretical rationale and its relationship to policy, we define identities as self-characterizations and characterizations made by others, which influence behavioral choices. <sup>14</sup> We view motivation with respect to adolescent behavior in terms of identity affirmation. As adolescents are experimenting with various identities, behaviors that affirm salient identities will be maintained. However, identities are subject to re-evaluation or redirection. <sup>15</sup> As such, understanding identities may have important implications for policy; to the extent that identities can be changed it is likely that high risk sexual behaviors might also be altered.

In the current study we examine whether identities endorsed by sexually active adolescents, at the time of the first interview, are associated with risky sexual behaviors, one year later. By measuring identities at the time of the first interview, and outcomes between the interview waves, we attempt to clarify issues of causal ordering. The outcomes, all measured for the 12 month period between the interview waves, include: (1) number of sexual partners; (2) involvement in non-dating sexual activity (yes/no as well as number of non-dating sexual partners); (3) condom use at last sexual intercourse; (4) first time pregnant or got someone pregnant; and (5) involvement in a regrettable sexual situation due to either being drunk or high. We note that although pregnancy is not necessarily a 'risk' behavior, it can be associated with a more disadvantaged life course for adolescents. We also examine whether the influence of describing oneself as popular as well as describing oneself as a troublemaker are conditional on gender. To date, we are unaware of any studies which have prospectively tested whether these two identities affect sexual risk-taking, and whether there are gender differences in the influence of adolescents' identities on sexual risk-taking.

Building on prior studies, we include parental monitoring, closeness with parents, and whether adolescents believe that sex is only appropriate if one is married as important

independent variables reflecting the influence of parents on adolescents' sexual risk-taking.<sup>16</sup> We also examine whether adolescents believe that their friends are sexually active,<sup>17</sup> and whether adolescents are dating.<sup>18</sup> Scholarship suggests that perceptions of friends' sexual behavior, and dating relationships both play important roles in adolescent sexual activity.<sup>19</sup> We include several social and demographic characteristics that influence high risk sexual behavior such as gender, race, family income, family structure, mother's educational level, religiosity, and self-esteem.<sup>20</sup>

#### **METHODS**

#### **Data Source**

The present analyses are based on the Toledo Adolescent Relationships Study (TARS).

TARS was designed to examine the influence of parents, friends, and dating partners on adolescent fertility-related behaviors. The original sample was drawn from the year 2000 enrollment records of all youths registered for the seventh, ninth, and eleventh grades in Lucas County, Ohio, a largely urban environment that includes the Toledo metropolitan area. All of the schools eventually complied with our requests for these data, as this information is legally available under Ohio's Freedom of Information Act.

#### Sample

The sample universe encompassed records elicited from 62 schools across seven school districts. We use two waves of the TARS data. In general, TARS replicated the sampling strategy used in the National Longitudinal Study of Adolescent Health (Add Health). The National Opinion Research Center (NORC), the research firm responsible for the sampling strategy developed for Add Health, collaborated on the development of the Toledo sampling strategy and subsequent weights. School attendance was not a requirement for inclusion in the sample and most interviews were conducted in the respondent's home using laptops to administer the interviews. Based on U.S. Census data, the sociodemographic characteristics of

Lucas County closely parallel national statistics, especially with respect to race and ethnicity, median family income, educational levels and housing costs. For our study, African-American and Hispanic adolescents were over sampled.

The first wave of completed in-home interviews was conducted with 1,316 adolescents (48.6 percent males, and 51.5 percent females). With respect to racial and ethnic identification, 62.9 percent of respondents identified themselves as white; 24.8 percent as African-American, 11.3 percent as Hispanic, and 2.0 percent as "other." Present analyses are based on white, African-American, and Hispanic respondents who participated in both interviews and who were sexually active between the interview waves (n = 503).

#### Measures

Dependent variables. Using laptops, which were preloaded with the survey questions, among those who reported having sexual intercourse between the interview waves, we ask: "How many sexual partners have you had?" We ask whether respondents have been involved in a non-dating sexual experience in the past 12 months (yes/no). Among those who responded affirmatively, we also ask the number of non-dating sexual partners they have had in the past 12 months. Ever use a condom with most recent sex partner is derived from a set of questions which assess the primary method of birth control and whether condoms were also used. (This information is asked of most recent romantic partner; if respondent did not have sex with the most recent partner, we ask about the previous partner, as well as non-dating sexual partners). We ask whether respondents had a first pregnancy or caused a pregnancy between the interview waves. We also ask whether respondents had experienced a regrettable sexual situation in the past 12 months due to being either drunk or high.

Independent variables.

*Identities*. Respondents were asked about a number of identity statuses and the degree to which others would describe them in terms of these identities. The two focal identities, measured at the time of the first interview, are separate summated statements which ask the extent to which respondents agree that they could be described as popular with peers or as troublemakers. Scores for each range from 3-15 with higher scores indicating greater endorsement of the identity.

Sociodemographic Background. Almost 52% of the sample is Female. Race/ethnicity is self-reported as: white non-Hispanic (57.1%), African-American (28.6%), and Hispanic (14.3%). In analyses, race/ethnicity is coded as a dummy variable with white serving as the reference. School grade completed is classified as (1) seventh through (6) twelfth, with a mean category of tenth grade. Household income is the sum of the mother's and father's reported income. The response categories are based on \$10,000 intervals so estimates are not precise. The mean parental income is \$50,000-\$60,000. The range for this variable is less than \$10,000 to over \$150,000. Family structure is a four category variable indicating whether the teen lives in a married two biological family (44.1%), single parent family (30.2%), stepparent family (18.9%), or some other family type (e.g., foster care or living with relatives) (6.8%). Mother's education refers to the highest educational level achieved by the respondent's mother, as reported by the mother at the first interview. If there is only one parent figure in the household, his or her educational level is used. The response categories are 12 years of education (42.7%), less than 12 years (11.9%), and more than 12 years (45.5%).

The attitudinal influences of parents and peers are measured with two items. *Sex only if married* is an item which asks respondents the extent of agreement with the following statement: "A person should only have sex if they are married." Responses range from (1) strongly

disagree to (5) strongly agree. The average response is 2.5 indicating that respondents somewhat agree with the statement. *Friends have sex* is an item that asks respondents: "How many of your friends do you think have had sex?" Responses include (1) none, (2) one, (3) a few, (4) some, (5) most of them, and (6) all of them. The mean response category is 4 indicating that on average respondents believe that some of their friends have had sex intercourse.

Dating status is classified as (1) never dated (4.6%), (2) currently dating (65.6%), and (3) dated in the past but not currently dating (29.8%). Although all of these respondents are sexually active, nevertheless, nearly 5 percent (n = 25) report that they have never dated anyone.

Self-esteem is measured with a six-item scale. Scores range from 10 to 30 and the mean is 23.7 reflecting, on average, high self-esteem. *Religiosity* is measured by asking about the importance of religion from 1 (not at all important) to 4 (very important). The average response is 3.1 indicating that on average religion is important to respondents.

Parenting is measured with two items. Monitoring is a summated five-point scale in which respondents indicate how often parents monitor: (1) "the time you must be home on weekend nights;" (2) "the people you hang around with;" (3) "what you wear;" (4) "your social life;" (5) "who you can date;" and (6) "how often you can date." High scores reflect high parental monitoring. Scores range from 6 to 30 and the mean is 23.6 indicating perceptions of high parental monitoring. Parental closeness is measured with the following item: "I feel close to my parents." Scores range from (1) strongly disagree to (5) strongly agree. The mean response is 3.7 reflecting that on average respondents feel close to their parents.

#### **RESULTS**

#### **Sample Characteristics**

In Table 1 we report the means, percentages, standard deviations, and ranges for all variables used in the multivariate analyses. Among sexually active youth, the average number of

sexual partners in the past 12 months is 2.2, with a standard deviation of 2.7 and a range of 1 to 20. About half (50.9%) of the sexually active youth have engaged in non-dating sexual experiences in the past year. The mean number of non-dating sexual experiences in the past 12 months is 1.2 with a standard deviation of 1.8. About 68 percent of the respondents report using a condom with their most recent or current sexual partner. Seven percent (n = 35) of respondents report a first pregnancy between the interview waves. About 17.8 percent report a regrettable sexual situation between the time of the two interviews, which was due to being drunk or high. Regarding the two identities, respondents report greater endorsement of the popularity identity (11.1) relative to the troublemaker identity (7.0).

#### Adolescents' High Risk Sexual Behaviors

Number of Sexual Partners in the Past Year. Table 2 includes four multiple regression models examining the effect of identities on number of sexual partners in the past year. Results in Model 1 and Model 2 (i.e., gender interaction) show that among sexually active youth, the popularity identity is not associated with number of sexual partners at the .05 level. Results in Model 3 show that endorsement of the troublemaker identity is associated with number of sexual partners, and this effect does not differ by gender as shown in Model 4. Thus, both male and female youth who define themselves as troublemakers earlier on, report higher numbers of sexual partners over the past 12 months, net of other known correlates. However, endorsing the popularity identity does not result in a higher number of sexual partners one year later. The other variables that prospectively predict number of sexual partners over the course of one year is gender (i.e., males) and believing that friends are sexually active.

#### [Table 2 about here]

Non-Dating Sexual Intercourse in the Past Year. Table 3 displays the four logistic regression models predicting non-dating sexual activity. Model 1 and Model 2 show that male

and female adolescents who endorse the popularity identity do not have higher odds of engaging in non-dating sex. Model 3 shows that endorsement of the troublemaker identity is associated with higher odds of non-dating sexual activity over the past 12 months. Moreover, similar to the results on number of sexual partners, the influence of endorsing the troublemaker identity does not differ by gender.

#### [Table 3 about here]

We also predict number of non-dating sexual partners in the past year from the self-descriptions of popularity and troublemaker. We find that among those who engaged in non-dating sexual activity between the interview waves (n = 391), the troublemaker identity is associated with number of non-dating sexual partners, and this effect does not differ by gender (available from authors). Thus, those who endorse the troublemaker identity are more likely to engage in non-dating sexual activity, and to report a higher number of non-dating sexual partners. Other significant effects are comparable to those shown in Table 2 (i.e., predicting number of sexual partners).

Ever Use a Condom with Most Recent Sexual Partner. In Table 4, model 1 shows that the main effect of self-identifying as popular is negatively related to condom use at last sexual intercourse. Model 2, however, shows that the interaction between being popular and being female is positive and significant suggesting that popularity manifests differently for males and females. Whereas for boys, popularity is associated with lower odds of condom use at last sexual intercourse; for girls, popularity is associated with higher odds of condom use. Model 3 and Model 4 show that the troublemaker identity, for both males and females, is not significantly associated with condom use at last sexual intercourse. Thus, it appears that self-identifying as popular, but not self-identifying as a troublemaker, is consequential to condom use.

#### [Table 4 about here]

Pregnant or Got Someone Pregnant for the First Time in the Past Year. Table 5 shows the four logistic regression models predicting pregnancy. These results should be interpreted with caution due to our small sample size. Model 1 shows that self-describing as popular at the time of the first interview is related to first pregnancy between the interview waves (p < .10). Although the n is small, (only 35 youth were pregnant or had gotten someone pregnant between the one year time interval), Model 2 shows that the main effect remains significant, although the gender interaction is not significant suggesting that the positive effect of popularity on pregnancy does not differ by gender. Model 3 and Model 4 show that self-identifying as a troublemaker is not related to pregnancy between the time of the two interviews for either male or female respondents.

#### [Table 5 about here]

Regrettable Sexual Situation Due to Drugs or Alcohol in the Past Year. Table 6 displays the four logistic regression models predicting a drug/alcohol related regrettable sexual situation. Model 1 indicates that identifying as popular at the earlier interview does not statistically increase the odds of involvement in a regrettable sexual situation due to drugs or alcohol. Model 2 shows that the non-significant effect holds for males as well as female respondents. Model 3 indicates that those respondents who self-defined as a troublemaker at the time of the first interview are more likely to report a regrettable sexual situation between interview waves; moreover, Model 4 indicates that the relationship between self-identifying as a troublemaker and involvement in a regrettable sexual situation associated with drugs or alcohol does not differ by gender.

#### [Table 6 about here]

#### **DISCUSSION**

We emphasize that adolescents' sexual experiences may reflect a 'trying out' of identities. Two identities that may be related to high risk sexual behavior are viewing oneself as a risk-taker or troublemaker type, or conversely perceiving oneself as socially competent/popular with peers. As adolescents are trying out various identities, behaviors that affirm salient identities will be maintained and will have subsequent influences on behavior. Our analyses find that indeed identities do influence sexual activity. Regarding youth who endorse the troublemaker identity, our key findings include the following: both male and female youth who define themselves as troublemakers report higher numbers of sexual partners over the past 12 months, have higher odds of engaging in non-dating sexual activity, have higher numbers of non-dating sexual partners, and are more likely to report a regrettable sexual situation in the past 12 months due to being intoxicated or high. It is notable that the negative implications of this disquieting identity hold for girls and boys.

Regarding youth who endorse the popularity identity, popular boys, but not popular girls, have lower odds of condom use at last sexual intercourse. This might suggest that the current policy focus on 'at risk' youth should be expanded to include youth who would not conventionally be defined as at risk. Additionally, popularity is associated with first pregnancy between the interview waves. Although our sample of sexually experienced adolescent girls who become pregnant as well as sexually experienced teen boys who have caused a pregnancy during the one year interval is small, the findings are consistent with findings from NSFG.<sup>21</sup> What we add to the literature, however, is to demonstrate that in the case of condom use and pregnancy, a positive identity (i.e., being popular) and not the negative identity (i.e., troublemaker) is associated with the potentially more dire or risky behaviors. Much policy work still needs to be done to increase consistent condom use and to delay first pregnancy to beyond

the adolescent years, and we think there is value in focusing on this connection between popularity, sexual responsibility, and fertility-related outcomes. Additionally, it is important to emphasize that these identities are important predictors after controlling for a variety of social relationship variables focusing on parents, dating, friends, religiosity, and self-esteem, as well as demographic background variables.

Our approach also underscores that identity exploration, in addition, to family and peers can influence the behavior of adolescents in ways that either amplify prosocial or antisocial behavior. Specifically, in this study we emphasize conceptually that the reflected appraisals of significant others influence identities, which in turn strengthen certain behaviors and the development of particular identities. Because many of the prevention and intervention programs in the U.S. are based on rational or decision making models it might be useful to extend these approaches to include attention to identity exploration, which is such a critical task associated with the adolescent period.

Our work contributes to the growing body of literature that focuses on understanding adolescents' motivations for risky sexual involvement. Due to the high risk nature of recent trends in adolescents' sexual and fertility-related behaviors, both in terms of the development of intimacy skills and long term health implications, there is a critical need to understand factors that may decrease adolescents' risky sexual behavior.

By focusing on the patterning of social influences and the motivational aspect of identities that guide adolescents' behavior, interventions could be better developed, which offer youth opportunities to expand the intimacy skills necessary for adulthood, including a focus on developing identities associated with healthier and more satisfying lives. Thus our findings are applicable to the objectives for adolescents outlined in Healthy People 2000. Our focus on

identity presents an important direction because parents, friends, and romantic partners, while widely understood as influential, are often not available as targets for intervention efforts.

#### **Study Limitations and Strengths**

There are some limitations to this study. First, the range of high risk sexual behaviors is necessarily limited. Our future work will include a greater focus on the connection between identity exploration, drug and alcohol use, and high risk sexual behaviors including involvement in multiple concurrent sexual relationships. A second limitation is that our analyses focusing on pregnancy or causing a pregnancy between the interview waves is based on a very small sample (n = 35). Nevertheless, the significant findings do suggest that adherence to certain identities may be important for understanding teen pregnancy. Third, the sample is based in the Midwest, although as we noted earlier the social and demographic characteristics are consistent with national statistics. Fourth, the small sample size especially relative to data sets such as the Add Health is a limitation; however, the unique measures of identities do not exist in other national surveys of adolescents including the Add Health, National Survey of Family Growth (NSFG), and National Survey of Adolescent Males (NSAM).

There are also several strengths to the study including the fact that the data are prospective. In other words, we demonstrate that adherence to certain identities at the earlier point in time has direct consequences for sexual behavior over the next 12 months. Moreover, these findings hold after controlling for most of the key predictors of adolescent sexual risk-taking found in previous studies. From our perspective, however, the real strength of this study is its underlying theoretical framework. A major limitation of prior studies is that typically they are not grounded in any theoretical framework. Furman and Wehner (1994) note the lack of theory guiding research on adolescents' intimate relationships. Moore et al. evaluating intervention programs state: "Unfortunately, no evaluations point to remarkably successful

adolescent pregnancy prevention programs that stand out as having large, sustained, and clearly documented impacts. Most of the programs have been small, short-term projects that are implemented without a theoretical basis or even a clearly operational model, without a design based on prior scientific studies, and without rigorous evaluations." Similarly, Anderson and Rodriguez (2003, p. 73) reviewing HIV prevention programs state: "The most successful prevention programs are those that are based on social or social psychological theories..."

Based on these sorts of assessments which emphasize the need for theory, we believe that studies based on theoretical approaches have the best chance of assisting practitioners in reducing sexual risk.

We also note that most analyses of adolescent sexual behavior focus on sexual debut.

This study, which is limited to those male and female adolescents who have had sex, allows for a more focused analysis of the risk behaviors among sexually experienced teens.

#### Conclusion

In conclusion future research should pay special attention to teens whose identity explorations appear to be taking them in the direction of more promiscuous or sexually risky identities as well as the critical processes of moving away from such identities. Of special relevance, perhaps, are views of oneself as popular and its relationship to adolescent pregnancy. Currently, we are unaware of studies which have examined this intriguing relationship. Future work should also consider identity exploration among those youth who do not exhibit high risk behavior, even though their demographic and social profiles would suggest that they would be likely to do so. Our view is that in addition to quantitative analyses, qualitative in-depth interviews would be useful for explicating how some youths have carved out meaningful, more balanced identities that do not include sexual risk-taking. Our study, however, is an important first step in laying the groundwork. Our findings will be important to the goal of theory building

in the area of identities and relationships, and useful for informing future prevention and intervention efforts.

Lastly, from a policy standpoint, understanding both individual-level variables such as identity exploration and the influences of significant others such as parents, peers, and sexual partners is critical because those adolescents who report high numbers of sexual partners, who engage in non-dating sexual activity, and who are inconsistent condom users are at greater risk for unplanned pregnancy, premature parenthood, and exposure to STDs including HIV.

Developing interventions to delay adolescent sexual activity, to encourage fewer sexual partners, as well as to encourage monogamous sexual activity may be enhanced with a better understanding of how and why adolescents' identities might influence high risk sexual behavior. Moreover, whereas the influence of parents, peers, and sexual partners on high risk activity may be relatively intractable, identity exploration may be more amenable to intervention because it is, to a greater extent, under the targeted audience's volition.

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Table 1. Means, Standard Deviations, and Ranges of All Variables

	Mean/%	Std. Dev.	Range
Dependent Variables			
Number of sex partners in past year	2.24	2.74	1-20
Non-dating sex in past year	50.9%	0.50	0-1
Number of non-dating sex partners in past year	1.24	1.88	0-10
Ever use a condom with most recent sex partner	0.68	0.47	0-1
Pregnancy in past year	7.0%	0.25	0-1
Regrettable sex in past year while under the influence of alcohol or drugs	17.8%	0.38	0-1
Independent Variables			
Popular	11.13	2.41	3-15
Trouble-maker	7.02	2.68	3-15
Gender			
(Male)			
Female	51.7%	0.50	0-1
Race			
(White)			
African American	28.6%	0.45	0-1
Hispanic	14.3%	0.35	0-1
School Grade Completed	3.77	1.41	1-6
Household Income	4.93	2.70	1.23-9.41
Household Structure			
(Married biological)			
Single parent	30.2%	0.46	0-1
Step parent	18.9%	0.39	0-1
Other	6.8%	0.25	0-1
Mother's Education			
(12 years)			
Less than 12 years	11.9%	0.32	0-1
More than 12 years	45.5%	0.50	0-1
Attitudes			
Sex only if married	2.53	1.17	1-5
Friends have sex	4.02	1.57	1-6
Dating			
(Dated in past, but not currently dating)			
Never dated	4.6%	0.21	0-1
Currently dating	65.6%	0.48	0-1
Self-Esteem	23.72	3.74	10-30
Religiosity	3.10	1.22	1-5
Parenting			
Monitoring	23.63	5.58	6-30
Closeness	3.67	0.93	1-5

Table 2. Regression Coefficients Predicting Number of Sex Partners in Past Year at Time 2 from Self-

Descriptions of Popularity and Troublemaker, and Background Variables Measured at Time 1.

	Model 1		Mode	1 2	Model 3		Mode	Model 4	
	b	s.e.	b	s.e.	b	s.e.	b	s.e.	
Female	-0.87 ***	0.26	-0.85	1.16	-0.73 **	0.26	-0.72 **	0.70	
	0.02	0.26	0.02	0.08	-0.73	0.20	-0.72	0.70	
Popularity Popularity	0.02	0.03	0.02	0.08					
Popularity x Female Troublemaker			0.00	0.10	0.16 **	0.05	0.16 *	0.07	
					0.16 **	0.05	0.16 *	0.07	
Troublemaker x Female							0.00	0.09	
Race									
(White)									
African American	0.07	0.32	0.07	0.32	0.21	0.32	0.21	0.32	
Hispanic	-0.54	0.37	-0.54	0.37	-0.54	0.37	-0.54	0.37	
School Grade	-0.09	0.10	-0.09	0.10	-0.05	0.10	-0.05	0.10	
Household income	-0.09	0.07	-0.09	0.07	-0.09	0.07	-0.09	0.07	
Household structure	0.09	0.07	0.09	0.07	0.09	0.07	0.07	0.07	
(Married biological)									
Single parent	0.25	0.43	0.24	0.43	0.27	0.42	0.27	0.42	
Step parent	0.08	0.34	0.08	0.34	0.12	0.34	0.12	0.34	
Other	0.56	0.67	0.56	0.67	0.66	0.66	0.66	0.66	
Mother's Education	0.00	0.07	0.00	0.07	0.00	0.00	0.00	0.00	
(12 years)									
Less than 12 years	-0.08	0.41	-0.08	0.41	-0.01	0.41	-0.01	0.41	
More than 12 years	-0.03	0.27	-0.03	0.28	0.05	0.27	0.05	0.27	
Attitudes							****		
Sex only if married	-0.11	0.12	-0.11	0.12	-0.10	0.12	-0.10	0.12	
Friends have sex	0.28 **	0.09	0.28 **	0.09	0.22 *	0.09	0.22 *	0.09	
Dating									
Never dated	-0.37	0.63	-0.37	0.63	-0.52	0.62	-0.52	0.62	
Currently dating	-0.37	0.27	-0.37	0.27	-0.33	0.27	-0.33	0.27	
Self-Esteem	-0.01	0.03	-0.01	0.03	0.00	0.03	0.00	0.03	
Religiosity	0.06	0.11	0.06	0.11	0.04	0.11	0.04	0.11	
Parenting	0.00	J.1.1	0.00	J		J		1	
Monitoring	0.01	0.02	0.01	0.02	0.01	0.02	0.01	0.02	
Closeness	-0.18	0.14	-0.18	0.14	-0.11	0.14	-0.11	0.14	
N-502	0.10	J	0.10	J.1.	V.1.1	J	V	····	

N=503

+p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001

Table 3. Odds Ratios Predicting Non-Dating Sex in Past Year at Time 2 from Self-Descriptions of Popularity and Troublemaker, and Background Variables Measured at Time 1.

	Model 1		Model 2		Model 3		Model 4	
	e <sup>b</sup>	s.e.	e <sup>b</sup>	s.e.	e <sup>b</sup>	s.e.	e <sup>b</sup>	s.e.
Female	0.45 ***	0.23	0.23	1.06	0.52 **	0.24	0.29 +	0.70
Popularity	0.99	0.05	0.96	0.07				
Popularity x Female			1.06	0.09				
Troublemaker					1.25 ***	0.05	1.20 **	0.07
Troublemaker x Female							1.09	0.09
Race								
(White)								
African American	0.93	0.28	0.93	0.28	1.10	0.29	1.07	0.29
Hispanic	0.74	0.33	0.72	0.34	0.72	0.34	0.72	0.34
School Grade	0.95	0.09	0.95	0.09	1.01	0.09	1.02	0.09
Household income	0.90	0.07	0.90	0.07	0.90	0.07	0.90	0.07
Household structure (Married biological)								
Single parent	2.07 +	0.39	2.10 +	0.39	2.18 +	0.40	2.21 *	0.40
Step parent	1.29	0.32	1.31	0.32	1.40	0.32	1.40	0.33
Other	3.18 +	0.63	3.27 +	0.63	3.98 *	0.65	3.95 *	0.65
Mother's Education	5.16	0.03	3.27	0.03	3.90	0.03	3.73	0.03
(12 years)								
Less than 12 years	0.64	0.38	0.64	0.38	0.71	0.39	0.71	0.39
More than 12 years	1.05	0.24	1.05	0.24	1.17	0.25	1.18	0.25
Attitudes	1.02	0.2.	1.00	0.2 .	1.17	0.23	1.10	0.20
Sex only if married	1.01	0.11	1.02	0.11	1.03	0.11	1.03	0.11
Friends have sex	1.18 *	0.08	1.18 *	0.08	1.08	0.09	1.08	0.09
Dating								
Never dated	0.76	0.63	0.74	0.63	0.54	0.66	0.55	0.66
Currently dating	0.53 **	0.24	0.53 **	0.24	0.54 *	0.24	0.55 *	0.24
Self-Esteem	1.00	0.03	1.00	0.03	1.01	0.03	1.01	0.03
Religiosity	1.09	0.10	1.10	0.10	1.07	0.10	1.08	0.10
Parenting								
Monitoring	0.99	0.02	0.99	0.02	0.99	0.02	0.99	0.02
Closeness	1.09	0.12	1.08	0.12	1.21	0.13	1.21	0.13

+p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001

Table 4. Odds Ratios Predicting Ever Use a Condom with Most Recent Sex Partner from Self-Descriptions of

Popularity and Troublemaker, and Background Variables Measured at Time 1

	Model 1		Mode	1 2	Mode	el 3	Model 4	
	e <sup>b</sup>	s.e.	e <sup>b</sup>	s.e.	e <sup>b</sup>	s.e.	e <sup>b</sup>	s.e.
Female	0.78	0.23	0.07 *	1.13	0.78	0.23	0.29 +	0.64
Popularity	0.90 *	0.05	0.80 **	0.07			•	
Popularity x Female			1.24 *	0.10				
Troublemaker					0.97	0.04	0.91	0.06
Troublemaker x Female							1.15 +	0.08
Race								
(White)								
African American	2.11 *	0.30	2.08 *	0.30	1.89 *	0.30	1.80 *	0.30
Hispanic	0.62	0.32	0.57 +	0.32	0.60	0.31	0.60 +	0.31
School Grade	1.06	0.09	1.07	0.09	1.09	0.09	1.09	0.09
Household income	1.09	0.06	1.08	0.06	1.08	0.06	1.08	0.06
Household structure								
(Married biological)								
Single parent	0.79	0.38	0.84	0.38	0.84	0.38	0.86	0.38
Step parent	1.20	0.30	1.32	0.31	1.14	0.30	1.17	0.30
Other	0.51	0.58	0.56	0.59	0.55	0.58	0.57	0.58
Mother's Education								
(12 years)	0.02	0.25	0.05	0.25	0.06	0.25	0.06	0.25
Less than 12 years	0.83	0.37	0.85	0.37	0.86	0.37	0.86	0.37
More than 12 years	0.78	0.24	0.78	0.24	0.76	0.24	0.77	0.24
Attitudes	1.00	0.11	1.00	0.11	1.10	0.11	1.10	0.11
Sex only if married	1.08	0.11	1.09	0.11	1.10	0.11	1.10	0.11
Friends have sex	0.98	0.08	0.98	0.08	0.98	0.08	0.97	0.08
Dating	1 14	0.66	1.00	0.66	1.22	0.65	1 17	0.65
Never dated	1.14	0.66	1.08	0.66	1.22	0.65	1.17	0.65
Currently dating	0.98	0.24	0.96	0.24	0.93	0.24	0.94	0.24
Self-Esteem	1.06 +	0.03 0.09	1.06 +	0.03	1.04	0.03 0.09	1.05	0.03
Religiosity	1.05	0.09	1.06	0.10	1.03	0.09	1.05	0.10
Parenting Monitoring	1.02	0.02	1.02	0.02	1.02	0.02	1.02	0.02
Closeness	1.02	0.02	1.02	0.02	1.02	0.02	1.02	0.02
N-442	1.0/	0.12	1.03	0.12	1.02	0.12	1.01	0.12

N=443

<sup>&</sup>lt;del>|</del>p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001

Table 5. Odds Ratios Predicting First Pregnancy in past year from Self-Descriptions of Popularity and

Troublemaker, and Background Variables Measured at Time 1.

	Model 1		Mode	Model 2		Model 3		el 4
	e <sup>b</sup>	s.e.	e <sup>b</sup>	s.e.	e <sup>b</sup>	s.e.	e <sup>b</sup>	s.e.
Female	1.93	0.41	3.03	2.03	1.78	0.41	0.61	1.11
Popularity	1.16 +	0.09	1.19	0.14				
Popularity x Female	•		0.96	0.17			0.86	0.12
Troublemaker					0.94	0.08	1.17	0.15
Troublemaker x Female								
Race								
(White)								
African American	1.14	0.52	1.14	0.52	1.17	0.51	1.13	0.51
Hispanic	2.11	0.49	2.15	0.50	2.28 +	0.49	2.34 +	0.49
School Grade	1.37 +	0.17	1.37 +	0.17	1.30	0.16	1.31 🕂	0.16
Household income	1.06	0.10	1.06	0.10	1.07	0.10	1.07	0.10
Household structure								
(Married biological)								
Single parent	0.55	0.67	0.54	0.67	0.53	0.67	0.54	0.67
Step parent	1.22	0.48	1.20	0.49	1.34	0.48	1.40	0.48
Other	1.00	1.04	0.99	1.04	0.92	1.04	0.87	1.05
Mother's Education								
(12 years)								
Less than 12 years	3.76 *	0.54	3.76 *	0.54	3.33 *	0.53	3.33 *	0.53
More than 12 years	1.25	0.46	1.25	0.46	1.31	0.46	1.31	0.46
Attitudes								
Sex only if married	0.97	0.20	0.97	0.20	0.95	0.20	0.96	0.20
Friends have sex	1.24	0.16	1.23	0.16	1.30 +	0.16	1.31 +	0.16
Dating								
Never dated	2.24	0.93	2.24	0.93	2.30	0.91	2.31	0.91
Currently dating	1.17	0.45	1.17	0.45	1.22	0.45	1.24	0.45
Self-Esteem	0.95	0.05	0.95	0.05	0.96	0.05	0.96	0.05
Religiosity	0.77	0.17	0.76	0.17	0.80	0.17	0.82	0.17
Parenting								
Monitoring	0.96	0.03	0.96	0.03	0.96	0.03	0.96	0.03
Closeness	1.06	0.21	1.06	0.21	1.10	0.21	1.10	0.21

N = 503

<sup>+</sup>p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001

Table 6. Odds Ratios Predicting Regrettable Sex in Past Year at Time 2 from Self-Descriptions of Popularity and

Troublemaker, and Background Variables Measured at Time 1.

	Model 1		Model 2		Model 3		Model 4	
	e <sup>b</sup>	s.e.						
Female	0.84	0.26	0.36	1.15	1.02	0.27	1.32	0.77
Popularity	0.95	0.05	0.92	0.07				
Popularity x Female			1.08	0.10				
Troublemaker				****	1.17 **	0.05	1.19 **	0.07
Troublemaker x Female							0.97	0.09
Race								
(White)								
African American	0.37 **	0.37	0.36 **	0.38	0.41 *	0.38	0.41 *	0.38
Hispanic	0.87	0.36	0.85	0.36	0.88	0.36	0.88	0.36
School Grade	0.93	0.10	0.93	0.10	0.98	0.10	0.98	0.10
Household income	1.00	0.07	1.00	0.07	1.00	0.07	1.00	0.07
Household structure								
(Married biological)								
Single parent	0.77	0.45	0.79	0.45	0.78	0.45	0.78	0.45
Step parent	1.12	0.33	1.15	0.33	1.11	0.33	1.10	0.33
Other	0.53	0.80	0.55	0.80	0.57	0.81	0.56	0.81
Mother's Education								
(12 years)								
Less than 12 years	1.07	0.42	1.09	0.43	1.26	0.43	1.26	0.43
More than 12 years	1.25	0.28	1.26	0.28	1.34	0.28	1.34	0.28
Attitudes								
Sex only if married	0.89	0.13	0.89	0.13	0.91	0.13	0.91	0.13
Friends have sex	1.16	0.10	1.16	0.10	1.07	0.10	1.07	0.10
Dating								
Never dated	0.32	0.80	0.32	0.80	0.30	0.81	0.30	0.81
Currently dating	0.49 **	0.26	0.49 **	0.26	0.48 **	0.26	0.48 **	0.26
Self-Esteem	0.99	0.03	0.99	0.03	1.00	0.03	1.00	0.03
Religiosity	1.17	0.11	1.18	0.11	1.14	0.11	1.13	0.11
Parenting								
Monitoring	1.02	0.03	1.02	0.03	1.01	0.03	1.01	0.03
Closeness	1.02	0.14	1.02	0.14	1.08	0.14	1.08	0.15

N=501

+p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001