Risk for Teen Fatherhood among a Diverse Sample of High School Students

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Abstract

Objective: To investigate the risk and protective factors associated with teen fatherhood. Methods: Data from the Youth Risk Behavior Survey were analyzed. Several risk and protective factors were selected to investigate their association with risk of teen fatherhood. Mean scores on the newly developed Teen Fatherhood Risk Scale were compared across racial and age groups. The sample consisted of 4588 males; 46% were White, 32.5% were Hispanic, and 22% were Black. **Results:** *Among the selected risk factors, multiple regression analysis indicated race was the best predictor of teen fatherhood risk. Black males had significantly higher risk scores. Lifetime marijuana use was the second best predictor. HIV/AIDS education was the best protector against the risk of becoming a teen father.* **Conclusion:** *Evidenced-based teen pregnancy prevention programs for racial minority males must be comprehensive, address substance use, and culturally sensitive. Research and policy implications are also discussed.*

Key words: teen pregnancy, adolescent males, risk behaviors, prevention.

1. Introduction

Worldwide, the United States has the highest teen pregnancy rate among all industrialized countries. Nationally, 750 000 teenagers become pregnant each year and 367 752 babies are born to teen mothers (Martin, Hamilton, Ventura, Osterman, & Mathews, 2013). Although the teen pregnancy rate has decreased, teen pregnancy continues to be a social problem, creating a myriad of adverse consequences for teen parents, their children, and society as a whole. Teen mothers have significantly lower graduation rates than teens who delay childbirth. Approximately 33% of teen mothers graduate from high school (Alley's House, 2010). Only half of teen parents receive a high school diploma by 22 years of age (Perper, Peterson, & Manlove, 2010). Less than 2% of teen parents complete a college degree by 30 years of age (Alley's House, 2010; Hoffman, 2006; National Campaign to Prevent Teen and Unplanned Pregnancy, 2010). Black and Hispanic teen pregnancy rates are disproportionately higher than those of White. In 2012, the teen birth rate in Texas was 44.4 per 1,000 females, 20.5 for White girls 43.9 for Black girls and 46.3 for Hispanics girls (Martin et al., 2013).

While these stats are alarming, they primarily represent adolescent females. The literature is saturated with research studies pertaining to adolescent females, resulting in a significant gap in the literature pertaining to adolescent males. The literature specific to adolescent males tends to focus on aggressive and delinquent behaviors (Lohman & Billings, 2008; Miller-Johnson, Winn, Coie, Malone, & Lochman, 2004; Pears, Pierce, Kim, Capaldi, & Owen, 2005; Thornberry, Smith, & Howard, 2007). In order to combat teen pregnancy the topic must be broached from multiple perspectives.

To address this gap, the present study utilizes a risk and resilience perspective to investigate risk and protective factors predictive of teen fatherhood among a large and diverse sample of adolescent males. In this study, risk of teen fatherhood is conceptually defined as engaging in behaviors that increase the risk of becoming teen fathers, for example, unprotected sexual intercourse, multiple sexual partners, and early age of first sexual intercourse. This study is unique in that factors that have received far less attention are also investigated: team sport participation, physical activity, tobacco use, and suicidal ideation. This study was designed to answer 2 questions: (1) Which of the following variables: minority status, substance use, depression, suicidal ideation, and team sport participation is the best predictor of risk of teen fatherhood?

(2) Do the following factors protect adolescent males from the risk of teen fatherhood: physical activity and HIV/AIDS education? Results of this study will provide pertinent information for program and policy development in the area of teen pregnancy prevention, specific to adolescent males.

2. Theoretical Framework

The Risk and Resiliency Perspective (Rutter, 1987) was used to guide this study and was applied to identifying both risk and protective factors associated with teen fatherhood. Several researchers have applied this perspective to teen pregnancy and parenting (Borkoswki et al., 2007; East, Khoo, & Reyes, 2006; Franklin, Corcoran, & Harris, 2004; Lohman & Billings, 2008; Miller-Johnson et al., 2004). Employing this perspective, practitioners are able to implement innovative prevention programs that combat risk factors and cultivate protective factors specific to adolescent males.

2.1 Risk Factors

Risk factors are defined as characteristics or conditions of individuals, their families (eg, socioeconomic status), schools, and community environments that place them at an increased likelihood of engaging in problem behaviors that result in teen pregnancy (Hawkins, Van Horn, & Arthur, 2004). Exposure to multiple risk factors places adolescents in a more vulnerable state, which increases their chances of engaging in behaviors associated with risky outcomes (Fraser, Kirby, & Smokowski, 2004; Jenson & Fraser, 2006; Richman & Fraser, 2001; Rutter, 2001).

Race is a prominent risk factor associated with teen parenting. Adolescents of both sexes who identify themselves as racial minorities are at an increased risk of becoming teen parents (Berry, Shillington, Peak, & Hohman, 2000; Lohman & Billings., 2008; Thornberry et al., 1997; Xie, Cairns & Cairns, 2001). For example, Berry et al found that being Black increased the odds of becoming a teen father by 3.29. Thornberry et al. (1997) found that being a Hispanic male increased the probability of teen fatherhood by 0.52, and being a Black male increased the probability by 0.46. Consistent with other results, Xie and colleagues (2001) found that 26% of the Black female participants in their study became mothers, compared to 16% of the White females. However, there was no statistically significant difference between Black and White males

Substance use has also been found to increase the risk of teen parenting. In fact, 1 in 4 adolescents reported using a substance during the encounter in which they had sexual intercourse (Kaiser Family Foundation, 2008). Adolescent substance users are more likely to have sexual intercourse and more sexual partners (Averett, Rees, Duncan, & Argys, 2004; Berry et al., 2000; Broman, 2007; Miller-Johnson, et al., 2004; Pears et al., 2005; Rashad & Kaestner, 2004; Rees, Argys, & Averett, 2001; Thornberry et al., 1997; Zapata, Hillis, Marchibanks, Curtis, & Lowry, 2008). Adolescents who do not consistently use contraceptives are at an increased risk of becoming teen parents (Afable-Munsuz et al., 2006; Frost & Darroch, 2008; Guttmacher Institute, 2008). In fact, researchers at the Guttmatcher Institute (2008) found a 16% decrease in condom use from 9th grade to 12th grade. It is important to note that some adolescents encounter barriers to obtaining contraceptives, which prevents them from using contraceptives consistently (Cubbin, Santelli Brindis , & Braveman, 2005; Frost and Darroch, 2008). Having sexual intercourse at an early age also places adolescents at risk for becoming parents at a much younger age (Kaiser Family Foundation, 2008).

Depression has also been investigated as a risk factor. Depression becomes more prevalent during adolescence (Chaplin, Gillham, & Seligman, 2009; University of Michigan, 2007). In fact, 20% of adolescents experience depression and 5% of adolescents suffer from a major depressive disorder (Teen Depression, 2005). Adolescents who are depressed are at an increased risk of becoming teen parents (Burns et al. 2004; Dawson, Shih, Moor, & Shrier, 2008; Mollborn & Morningstar, 2009; Thornberry et al., 1997). Depression also predisposes adolescents to other risky behaviors that increase their risk of becoming teen parents. According to Teen Depression (2005), 30% of adolescents who have depression develop a substance abuse problem.

Suicide and suicidal ideation also become more prevalent during adolescence. Suicide is the third leading cause of death among adolescents (Hamilton, Minino, Martin, Kochanek, & Strobing, 2007). According to the Centers for Disease Control and Prevention (2009) at least 15% of high school students have experienced suicidal thoughts, 11% have made a plan for suicide, and close to 7% have attempted suicide in the past year. Suicidal behavior is not an isolated risk behavior and is generally associated with other risk behaviors such as depression and substance use. However, suicidal behavior is not a well-documented factor associated with risk of teen pregnancy. Far less research has been devoted to suicidal behavior as a risk factor for teen pregnancy.

Although females have higher rates of suicide attempts, adolescent males are more likely to complete suicide (Center for Disease Control and Prevention, 2009). Irrespective of the prevalence of suicidal behavior during adolescence and the lack of research linking suicidal ideation to risk of teen pregnancy, it seems highly appropriate to investigate suicidal behavior as a risk for teen fatherhood among an all-male sample.

Sports participation is gaining widespread attention as a risk factor associated with risky sexual behavior. Research studies pertaining to sports participation and risky sexual behavior revealed mixed results. Adolescent female athletes are more likely to have protected sex, fewer sexual partners, and significantly fewer incidents of sexual intercourse under the influence of drugs and alcohol (Eitle & Eitle, 2002; Lehman & Koerner, 2004; Miller, Barnes, Melnick, Sabo, & Farrell, 2002; Miller, Farrell, Barnes, Melnick, & Sabo, 2005). Consequently, few studies have focused solely on adolescent males; those that have revealed that adolescent male athletes are more likely to participate in risky sexual behavior than adolescent female athletes. (Miller et at., 2002; Miller et al., 2005). However, Kulig et al (2003) reported that male athletes were no more likely to participate in risky sexual behavior than peers who did not participate in a team sport or physical activity. Other research studies have shown that both male and female athletes have sex more often, with more partners, and also engage in unprotected sexual intercourse more frequently than their nonathletic peers (Habel, Dittus, DeRosa, Chung & Kerndt, 2010; Johnson, Bearinger, Eisenberg, Fulkerson, Sieving, & Lando-King, 2014; Wetherill, & Fromme, 2007).

2.2 Protective Factors

Practitioners have shifted from a deficit model to a strength-based approach, focusing on factors that protect individuals from engaging in risky behaviors. Fraser (2004) conceptually defines *resilience* as a protective factor. Rutter (1979) recognized that even while experiencing adversity and risk, children display positive characteristics that protect them.

HIV/AIDS education has also been researched intensively as a protective factor. The purpose of HIV/AIDS education is to deter adolescents from participating in unprotected sex that might lead to contracting HIV/AIDS, STDs, or becoming pregnant. However, the effectiveness of HIV/AIDS education has been inconsistent. Tremblay and Ling (2005) found HIV/AIDS education led to increased contraceptive use among female adolescents, but not among adolescent males. Zimmerman et al. (2006) reported that the modified, comprehensive HIV/AIDS education program had a stronger impact on minority students than non-minority students. Conversely, Sabia (2006) reported that one year after receiving HIV/AIDS education 28% of non-Whites were more likely to report having sex at least once, compared to 14% of White participants. More recently, HIV/AIDS education has been associated with increased condom use (Calderon et al., 2013; Coyle et al., 2013; Ma, Fisher, & Kuller, 2014). The present study was used to investigate whether or not HIV/AIDS education is a protective factor for adolescent males.

Less research has been conducted on the impact of physical activity or sport participation on sexual behaviors. Research that has focused on these variables investigated them together (Kulig et. al., 2003; Miller at al., 2002). This study is unique in that physical activity and sport participation are investigated separately. Sport participation is a team effort that exposes athletes to a subculture defined by unique social norms, and expectations that are not applicable to physical activity or exercise.

3. Methods

3.1 The Data Set

The data for this study were drawn from the 2007 Youth Risk and Behavior Survey (YRBS). The YRBS is a national, high school-based survey established by the Centers for Disease Control and Prevention (CDC). The survey monitors 6 areas of risk behavior and demographics. The YRBS was conducted using a multistage cluster probability sampling design. A total of 157 schools participated in the investigation and a total of 14 041 surveys were processed.

3.2 Current Sample

The subjects for the present study consisted of 4588 males between the ages of 15 and 17. The majority of the males were White (46.2%, n = 2120), 31.5% (n = 1446) were Hispanic, and 22.5% (n = 1022) were Black. The mean age of the sample was 16.03 years (SD = 0.809).

3.3 Measures

Teen Fatherhood Risk Scale. Seven questions from the original survey were used to create a teen fatherhood risk scale, which was used as the teen fatherhood risk variable. Risk was based on the following 7 items: (1) "Have you ever had sexual intercourse?"; (2) "How old were you when you had sexual intercourse for the first time?"; (3) "During your life with how many people have you had sexual intercourse?"; (4) "During the past 3 months, with how many people did you have sexual intercourse?"; (5) "Did you drink alcohol or use drugs before you had sexual intercourse the last time?"; (6) "The last time you had sexual intercourse, did you or your partner use a condom?"; (7) "The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy?" This scale was developed in a 2-step process. In the first step, each item was recoded. Numbers were assigned to each item based on the severity of the behavior. For example, the younger the age of first sexual intercourse, the higher the number assigned. Age 11 was assigned 7 points, the highest number assigned to this response. Those who had never had sex were assigned 0 points. In the second step, the numbers assigned for all 7 items were summed to compute a composite risk score. Scores ranged between 0 and 27; higher scores indicated higher risk of teen fatherhood. The scale yielded a Cronbach's α score of 0.89.

3.4 Selected Risk Factors

Race. In the current study, 2 race variables were created. The first race variable included White, Hispanic, and Black, and was recoded such that White was equal to 0. Hispanic was equal to 1, and Black was equal to 2. This race variable was used to compute frequencies, report other descriptive information, and compare mean risk scores. This race variable was dummy coded to create a second race variable, minority and non-minority.

Depression. One question was used to measure depression: "During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?" Responses were dichotomous, either yes or no. In the current study, if the subject answered yes he was considered depressed.

Lifetime substance use. The following questions were used to measure lifetime substance use: (1) "During your life, on how many days have you had a least one drink of alcohol?"; (2) "During your life, how many times have you used marijuana?"; and (3) "Have you ever tried cigarette smoking even one or two puffs?" The categorical responses were dummy coded such that 0 equaled no substance use and 1 equaled substance use. This process was conducted for all 3 lifetime substance use variables. In the current study, alcohol, marijuana, and tobacco were the substances investigated.

Current substance use. The same dummy coding process that was implemented for the 3 lifetime substance variables was also applied to the creation of current substance use variables. Current substance use was defined as use in the past 30 days.

Suicidal behavior. Four items were used to create the suicidal behavior subscale: (1) "During the past 12 months, did you ever seriously consider attempting suicide?"; (2) "During the past 12 months, did you make a plan about how you would attempt suicide?"; (3) "During the past 12 months, how many times did you actually attempt suicide?"; and (4) "If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?" After recoding the 4 items, responses were summed to create a composite suicidal behavior score.[54] Scores ranged from 0 to 8. Higher scores indicated higher levels of suicidal ideation. The scale yielded a Cronbach's α score of 0.83.

Team sport participation. One question was used to measure participation in sports: "During the past 12 months, on how many sports teams did you play?" Sports participation was recoded as a dichotomous variable: team sport participation or no team sport participation.

3.5 Selected Protective Factors

AIDS/HIV education. One question was used to measure this variable: "Have you ever been taught about AIDS or HIV education?" This yes or no question was dummy coded such that yes was recoded as 1, and no was recoded as 0. Responses of not sure were treated as missing.

Physical activity. One question was used to measure this variable: "During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day?" Responses ranged from 0 days to 7 days. This variable was recoded as a continuous variable.

3.6 Data Analysis Plan

All statistical analysis was conducted with the use of Statistical Package for Social Sciences Software (SPSS), version 15.0. Descriptive statistics and frequencies were computed for all predictor variables. Measures of central tendency were used to report overall risk scores for the sample. In addition, ANOVA analysis was conducted to compare mean risk scores among age and racial subgroups. The level of significance was set at .05 (p = .05). In order to evaluate each variable, a 2-step process was implemented. In the first step, each predictor variable was regressed on the teen fatherhood risk scale. In the second step, age was entered into the regression model. In the final analysis, all of the significant risk factors in the previous regression models were entered simultaneously with age.

4. Results

Race and TFRS scores. A one-way analysis of variance was conducted to investigate a statistically significant difference in mean scores on the TFRS among racial groups. Table 1 displays mean scores on the TFRS by race. ANOVA analysis revealed a statistically significant difference among racial groups, $F(2, 4240) = 199.272$, $p = .000$. Post hoc analyses revealed 3 heterogeneous groups; Black males had significantly higher mean risk scores on the TFRS, indicative of a higher risk of becoming a teen father.

Age and TFRS scores. A one-way analysis of variance was conducted to investigate whether there was a significant difference in mean scores on the TFRS among age groups. Table 2 displays the mean scores for each age group. ANOVA analysis revealed a statistically significant difference between age groups, $F(2, 4240) = 45.290$, $p = .000$. Post hoc analysis revealed 3 heterogeneous groups. All 3 groups were significantly different from each other. Older males had higher risk scores than younger males.

An independent samples *t*-test was conducted with each lifetime substance variable to investigate whether there was a difference in mean risk scores on the TFRS for males who were lifetime substance users and males who were not. As illustrated in Table 3, each *t*-test analysis revealed a significant difference, $p < .05$. Lifetime substance users had a higher risk of becoming teen fathers than non-lifetime substance users, as indicated by their higher mean risk scores.

Current substance use referred to substance use in the past 30 days. Mean risk scores were compared for males who were current substance users and males who were not. As shown in Table 3, each *t*-test analysis revealed a statistically significant difference, $p < .05$. Males who were current substance users were at a higher risk of becoming teen fathers.

Multiple regression analysis was conducted to evaluate how well all significant risk factors predicted risk scores. Approximately 33% ($R^2 = .330$) of the variation in risk scores was accounted for by the combination of predicted risk factors. As shown in Table 4, race remained significant and was the best predictor of teen fatherhood ($\beta = 3.640$). Lifetime marijuana use was the second best predictor ($\beta = 2.776$). In further evaluation, race and lifetime marijuana use were regressed onto the TFRS. Together, these factors accounted for approximately 26% ($R^2 = .264$) of the variance in risk scores. The only factor found to protect against teen fatherhood was HIV/AIDS education. No further analysis was conducted. Therefore, HIV/AIDS education is the best protector from risk of teen fatherhood. In terms of physical activity, there was no significant difference between adolescent males who engaged in physical activity and those who did not.

5. Discussion

Overall, the sample had a relatively low risk of teen fatherhood. When surveyed, 40% (n = 1847) of the sample reported that they had engaged in sexual intercourse and 52% (n = 2406) reported that they had not. Scores on the Teen Father Risk Scale ranged from 0 to 26 and the mean score for the sample was 7.6 (SD = 7.39). The overall mean age for first sexual intercourse was 13.9 years (SD = 1.62). This age is significantly lower than the mean age reported in previous research. Lohman and Billings (2008) reported an age of 15 years old, and the Kaiser Family Foundation (2008) reported an age of 16.9. These results suggest that adolescent males are engaging in sexual intercourse at an earlier age. Therefore, age-appropriate pregnancy prevention programs must be presented to younger adolescents. In addition, programs must continue to stress the importance of condom use and delaying sexual intercourse. Linear regression analysis revealed that race was the best predictor of risk of teen fatherhood. Racial minority males in the sample had significantly higher risk scores than White males. Black males had the highest risk scores. Similar results have been found in other studies (Berry et al. 2000; Blum et al., 2000; Lohman & Billings, 2008; O' Donnell, O'Donnell, & Stueve, 2001; Thornberry et al., 1997; Upchurch, Aneshensel, Sucoff, & Levy-Storms, 2001; Xie et al., 2001).

Despite drastic declines in teen pregnancy rates, racial disparities persist. A possible explanation for this disproportionality is that minority groups experience discrimination and marginalization that has resulted in a complex array of societal factors: poverty, less opportunity, lack of health care and access to contraceptive services, inadequate sex education, and significantly fewer resources, thereby increasing their likelihood of engaging in risky behavior.

Multiple regression analyses also revealed that lifetime marijuana use was the second best predictor of risk of teen fatherhood. Although lifetime marijuana use was the best substance predictor, both current and lifetime substance uses were statistically significant risk factors. In the current study, 23% (548) of males used a substance at their last sexual intercourse encounter. Twenty-two percent (n = 440) of lifetime marijuana users did not use a condom during their last sexual intercourse. In addition, 21% (n = 423) of lifetime marijuana users reported that they had 6 or more sexual intercourse partners. Substance use restricts the ability to evaluate risk and significantly impairs judgment.

Tobacco use is a less-explored factor for teen pregnancy. The majority of the literature in this field focuses on alcohol and marijuana use as risk factors associated with teen pregnancy. In the current study, analyses revealed that both lifetime and current smoking were predictors of teen fatherhood. Rashad and Kaestner (2004) found tobacco use increased sexual behavior and the frequency of intercourse without contraception. In the current study, 20% (n = 498) of lifetime smokers and 30% (n = 251) of current smokers reported that they had not used a condom during their last sexual intercourse encounter. A possible explanation for the association between cigarette smoking and risky sexual behavior is that tobacco is addicting and may encourage adolescents to experiment with more severe addictive substances, placing them at higher risk for teen parenting.

Suicidal behavior as a risk factor for teen pregnancy is also fairly unexplored. In the current study, scores on the suicidal ideation scale were predictive of risk of teen fatherhood. Overall, a small but significant percentage of adolescent males had attempted suicide at some time in their lives (4.75%, n = 188). Further analysis revealed that with respect to risk of fatherhood, adolescent males who attempted suicide had significantly higher risk scores than males who had not attempted suicide.

5.1 Limitations

Methodological limitations should be considered when interpreting the results of this study. First, critical variables were not collected in the original study. For example, no family, academic, community, or socioeconomic information was collected. These variables could have been used to determine more accurate explanations of factors that affect adolescent males. In addition, depression was measured with one dichotomous question, rather than with a depression scale. Another limitation is that the racial groups were uneven; almost half of the sample consisted of White students. Utilizing an equal number of responders in each racial group could have provided a stronger comparison analysis. Another limitation was the possibility that respondents were dishonest due to concerns about social desirability; an inherent limitation in all studies that rely on self-reporting.

Although dummy coding variables was chosen in order to conduct rigorous statistical analysis, this process does present limitations. In regards to substance use, those who only used a substance one time were ranked the same as those who were frequent users. Despite these limitations, this study provides significant contributions to the emerging literature regarding males and the complex factors that affect teen fatherhood.

5.2 Implications

Teen pregnancy and parenting research primarily focuses on females, as a result, far less is known about the risk of teen fatherhood and effective strategies to engage males in teen pregnancy prevention. Additional quantitative and qualitative research studies pertaining to adolescent males and their sexual behavior are needed. Specifically, research is needed to investigate the relationship between team sport participation and risky sexual behavior among minority male athletes. Future researchers must investigate the context and cultural meaning of sports participation among adolescent males, who presented with the greatest risk. Information gained through future studies will provide vital strategies for the development of new policies and programs to further facilitate healthy behavior and combat teen pregnancy among adolescent males. In addition, more research and attention must be devoted to exploring the relationship between suicidal ideation and risky sexual behavior.   Analysis revealed that HIV/AIDS education was a protective factor in the current sample. Risk scores were lower for adolescent males who had HIV/AIDS education. However, the mean age of first sexual intercourse was 13.9 years.

These results highlight the need for innovative, culturally sensitive prevention programs for adolescent males. Including males in prevention is pivotal to reducing teen pregnancy. Prevention must be presented in an age-appropriate format at an earlier age to delay intercourse and promote the use of contraceptives.

Generally, the main goals of prevention programs are to deter and/or delay sexual intercourse and increase contraception use (Robin et al., 2004). Although these are pertinent and necessary goals, programs must expand and include delaying substance use and other risk factors that interact to place adolescents at risk. It is imperative that schools, youth organizations and agencies implement evidenced-based prevention programs with a systematic, because the federal government, the state, parents, adolescents, and the community have a profound stake in reducing teen pregnancy.

In conclusion, the preponderance of information in the extant literature focuses on the time before, during, and after teen pregnancy and is limited to adolescent females. It is impossible to make meaningful progress while only focusing on one aspect of teen pregnancy prevention. In order to effectively combat the rates of teen pregnancy, programs must equip adolescent males with the necessary tools and information that will empower them to make responsible decisions regarding their sexual behavior and promote a healthy, positive lifestyle that will transfer into adulthood. In addition, programs must also address the barriers that adolescents encounter when trying to obtain contraceptives. While implementation of these strategies is arduous, they are possible if teen pregnancy prevention becomes a legislative priority.

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Table 1 Mean Teen Fatherhood Risk Scores by Race

	N	Mean	SD	F
White	1985	**5.5**	6.7	199.3*
Hispanic	1341	**8.4**	7.2	
Black	917	**11.0**	7.4	
Overall	4243	**7.62**	7.39	

*Denotes p < .05

Table 2 Mean Teen Fatherhood Risk Scores by Age

	N	Mean	SD	F
15 year-olds	1310	**6.24**	7.37	45.290*
16 year-olds	1461	**7.58**	7.35	
17 year-olds	1472	**8.88**	7.24	

*Denotes p < .05

Table 3 Mean Risk Scores and Substance Use

	N	*Mean*	*SD*	*T*
Lifetime Smoker				-25.170*
Yes				
Yes	2298	**9.96**	7.15	
		4.56		
No	1844		6.47	
Lifetime Alcohol				-17.839*
Yes		**8.51**		
Yes	3032		7.28	
No	915	**3.77**	6.20	
Lifetime Marijuana				-30.84*
Yes	1890	**11.01**	7.04	
		4.62		
No	2272		6.30	
Current Smoker				-20.971*
Yes		**11.87**		
	868		6.90	
No	3181	**6.25**	7.02	
Current Alcohol				-23.102*
		4.94		
No	2019		6.60	
Current Marijuana		**12.34**		-25.549*
No	3165	**6.0**	6.81	

*Denotes p < .05

Table 4 Multiple Regression Model of Risk Factors

	β	Std. Error	Beta (β)	t
Age (Control)	**.887**	.129	.098	6.89*
Race	**3.718**	.206	.255	18.03*
Depression	**.721**	.273	.040	2.64*
Life Smoke	**1.611**	.270	.110	5.96*
Life Alcohol	**.794**	.292	.047	2.72*
Life Marijuana	**2.675**	.306	.182	8.75*
Current Smoke	**1.304**	.319	.074	4.09*
Current Alcohol	**1.531**	.273	.105	5.61*
Current Marijuana	**1.702**	.329	.099	5.17*
Suicide Scale	**.460**	.106	.065	4.33*
Sports	**.617**	.093	.094	6.60*

*Denotes p < .05