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Risky Behavior in Affluent Youth: Examining the Co-occurrence and Consequences of Multiple Problem Behaviors

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Abstract

Children of affluent parents are often excluded in psychological research as they are considered to be at “low risk”; however, research is beginning to suggest that this previously under-studied population may be at risk for developing multiple problem behaviors, including substance use and externalizing problems. The current study aimed to extend the application of Problem Behavior Theory (PBT) to a sample of affluent adolescents by examining the extent to which these behaviors co-occurred and were associated with negative outcomes. Data were collected from 1,147 high school students living in an affluent community via anonymous questionnaires regarding their engagement in various problem behaviors. PBT was supported in this sample, and youth who engaged in multiple problem behaviors reported experiencing more negative outcomes than youth who did not engage in these behaviors. The findings of this study support the generalizability of PBT and also highlight the importance of continuing to study affluent youth in addition to traditionally high-risk populations.

Keywords

Affluent youth; Adolescent risk behavior; Problem Behavior Theory; Externalizing behaviors; Substance use

Introduction

Youth who engage in multiple problem behaviors have received substantial attention from both researchers and policy makers. These youth are at risk for experiencing undesirable outcomes, including negative legal consequences and high rates of adult substance use (Biglan et al. 2004; Jessor 1998). Additionally, the cost to society as a result of the behaviors of these youth has been estimated to range from \$335 to \$350 billion per year (in 1998; Miller 2004). As a result of the evidence linking these behaviors to adverse outcomes along

with the extreme cost to society, much research has been conducted on the prevalence and development of multiple problems in youth.

Jessor and Jessor (1977) proposed a model to account for the strong intercorrelations between multiple youth problem behaviors—including drug use, heavy alcohol use, early sexual intercourse, general deviance (e.g., aggression and delinquency), and low academic motivation and achievement—which has come to be known as Problem Behavior Theory (PBT). They posited that these “problem behaviors” cluster because they have a common cause (a general deviance construct), and the paradigm attempts to account for a general vulnerability to engage in non-normative behavior. PBT has been used in previous research to explain the co-occurrence of multiple problem behaviors (Donovan and Jessor 1985), and many cross-sectional and longitudinal studies have been conducted in order to test this theory. For example, Jessor and Jessor found that many of the problem behaviors they measured were strongly interrelated, and displayed an inverse relationship to “normative, conventional” behavior. Fergusson et al. (1994) found strong evidence for the comorbidity of various problem behaviors, including early sexual activity, alcohol and drug use, conduct and oppositional disorders, and interactions with police. They also reported that 3% of the youth showed high levels of engagement in *all* forms of problem behaviors. Several other studies have also supported the validity of this model as conceptualized by Jessor and Jessor (e.g., Farrell et al. 2000; Tildesley et al. 1995).

However, several studies have not found support for PBT. For example, Willoughby et al. (2004) examined substance use, sexual activity, delinquency, aggression, and gambling and did not find support for a single-factor model of problem behavior, but rather found evidence of a three-factor model. Other studies have suggested that problem behaviors are only partly explained by an underlying general deviance construct (e.g., McGee and Newcomb 1992). Notably, many of these studies have not followed a strict definition of PBT as originally conceptualized (Jessor and Jessor 1977), and as a result the accumulating research has been unclear regarding the inclusion of behaviors under this theory. For example, Loeber et al. (1998) examined the relations between delinquency, substance use, ADHD, conduct problems, physical aggression, covert behavior, depressed mood and shy/withdrawn behavior and reported that these behaviors were relatively independent of each other. The inclusion of several forms of internalizing disorders (e.g., depressed mood, shy/withdrawn behavior) suggests that this study was not a strict test of PBT.

Thus, PBT has received mixed support. However, it still has important implications for conceptualizing the development and co-occurrence of problem behaviors observed in some youth. Most of the studies examining PBT have been conducted with low-income and middle-class youth (e.g., Farrell et al. 2000; Loeber et al. 1998). Furthermore, most research examining adjustment problems and overall risk in children and adolescents has focused on low-income youth, as they have been presumed to be especially vulnerable to several problems, including internalizing and externalizing disorders, substance use and delinquent behavior (Bradley and Corwyn 2002; Brooks-Gunn and Duncan 1997). However, recent research is beginning to suggest that affluent youth, a previously under-studied population, may be at risk for developing many of the same problems evident in these “higher-risk” populations (Luthar 2003; Luthar and Latendresse 2005). Research with affluent youth has revealed that a significant number of these adolescents (as many as 10%; Luthar and Ansary 2005) have high rates of substance use, significant emotional and behavioral problems and poor school adjustment (T.J. McMahon and Luthar 2006). In fact, when compared to low-income youth, affluent youth have reported as much (i.e., in regards to externalizing problems) or more (i.e., in regards to internalizing problems and substance use) disturbance in several domains (Luthar and D’Avanzo 1999).

Regardless of the presumed “environmental safety nets” that are available to affluent youth (e.g., financial stability, safe communities, wealthy schools), those who had elevated rates of substance use and delinquent activities and reported low school engagement obtained lower academic grades than those affluent youth who did not show these elevated levels; similar results were found for low-income youth (Luthar and Ansary 2005). Furthermore, Luthar and Ansary found that affluent youth fell into one of four groups: conventional youth (those that did not engage in any problem behaviors; 55% of the sample); youth who displayed school disengagement only (12%); youth who only reported elevated use of drugs (23%); and multiproblem youth (those who engaged in more than one form of problem behaviors; 9%). The affluent youth in the multiproblem group and in the substance use only group were found to have significantly lower academic grades than the conventional group. Of note, the finding that youth in the substance use only group had significantly lower academic grades was not obtained in the sample of low-income youth.

While research conducted by Luthar and colleagues has illuminated many of the risks and disturbances experienced by affluent youth, there are still many gaps in the knowledge base. Notably, research on affluent youth has not examined the occurrence of risky sexual behavior (Chen and Thompson 2007), which is commonly included in lists of adolescent problem behaviors (Udry and Bearman 1998) and also appears in the original conceptualization of PBT. Aspects of adolescent sexual activity that are considered risky include early sexual activity, multiple partners, and lack of protective practices. Another gap concerns the extent to which problem behaviors co-occur and represent an underlying construct in affluent youth. Third, more research is needed to determine which additional negative consequences (in addition to lower grades; Luthar and Ansary 2005) these multiproblem affluent youth are likely to experience.

Our first aim in this study was to examine whether PBT held in a sample of affluent youth, a group which to date has not received attention in the literature examining Jessor and Jessor’s (1977) theory. We hypothesized that this paradigm would extend to affluent youth, as Luthar and Ansary (2005) found evidence suggesting that problem behaviors tend to co-occur in this population. According to PBT, we further hypothesized that these behaviors would be interrelated and would load onto a single factor representing an underlying tendency to engage in non-normative behavior, which we defined as a general deviance construct. For this model, we followed the original definition of PBT closely, and included substance use, externalizing behaviors, early sexual activity, and low academic achievement as the problem behaviors. It is also important to note that previous work with affluent youth has been conducted in the Northeastern United States, whereas the current sample was recruited from a different geographic region (the Pacific Northwest).

Our second aim was to examine the types of outcomes associated with engagement in multiple problem behaviors in this sample of affluent youth. Several studies have suggested that youth who display a pattern of multiple problem behaviors are at heightened risk for several negative outcomes, including problems with the legal system, substance abuse, and general maladjustment (Biglan et al. 2004; Stattin and Magnusson 1996). Specifically, we hypothesized that affluent youth who engaged in multiple problem behaviors would be more likely to experience negative legal outcomes (e.g., being arrested or convicted of a crime; Fergusson et al. 1994), as well as negative consequences associated with their substance use (e.g., getting into a fight or having trouble at school after using substances; Johnston et al. 1984).

Method

Participants

Data were collected from high school students (grades 9 through 12) enrolled in a single suburban high school in the Pacific Northwest region of the United States. The entire study body participated, with the exception of 243 students who were absent on the day of data collection and 8 students in special education, resulting in a sample of 1,185 students (an 82.9% response rate). Of this original sample of 1,185 students, data from 1,147 participants were included for analysis after removal of invalid responders (e.g., youth who reported they used all substances 40 or more times, had been convicted of a crime 5 or more times). The youth included for analysis in this study did not differ significantly from the total sample in terms of demographic measures. Participants were on average 16.80 years of age ($SD = 1.20$). An approximately even number of females (50.39%) and males completed the questionnaires, and the majority of the sample was Caucasian (69.31%; 15.61% Asian American, 6.20% Multiracial, 2.53% Hispanic, 1.48% African American, and 4.92% Other/No Response). Due to the anonymous data collection, we were unable to determine affluence levels for individual participants. However, we were able to collect information about the overall affluence of the surrounding community. In 2006–2008 the median income for a family in this community was estimated at \$162,735, and .9% of families were considered to be living below poverty level. The median home value in the area was estimated at \$928,200. In comparison, the median household income in 2006–2008 in the United States was estimated at \$52,175, with 9.6% of families considered to be living in poverty. Additionally, the median home value in the United States was reported to be \$192,400 (United States Census Bureau 2006–2008).

Measures

Participants were administered a completely anonymous questionnaire packet that took approximately 60 min to complete. These questionnaires asked the youth various questions pertaining to peer acceptance, internalizing and externalizing problems and parent–child relationships. For the purposes of the current study, measures regarding observable externalizing problems were analyzed.

Substance Use—Participants' substance use was measured with items from the Monitoring the Future Study Survey (MTF; Johnston et al. 1984), which asks participants to indicate the number of times they have used a specific substance (e.g., alcohol, cigarettes, marijuana, and a number of specific illicit drugs) in the past year. This measure is on a 7-point scale ranging from “never” to “40+ times.” The reliability and validity of this measure have been well documented (Johnston et al.). For analyses, substance use was split into two variables, one measuring alcohol, cigarette, and marijuana use and the other measuring other illicit drug use. This division was created as many more participants reported using alcohol, cigarettes and marijuana ($n = 623$) than reported using other illicit drugs (e.g., LSD, inhalants, cocaine, Ecstasy; $n = 220$). The alcohol, cigarette, and marijuana use variable indicated the frequency with which the participant had used any of these substances in the past year. The other illicit drug use variable was a count of how many of these substances the youth had used in the past year (a similar procedure was used in Becker and Luthar 2007). Alpha coefficients for these variables were .89 and .85 for the variables representing alcohol, cigarette, and marijuana use and other illicit drug use, respectively.

Early Sexual Activity—Participants answered selected questions from the Sexual Experiences Questionnaire (SEQ; Fitzgerald et al. 1995) to obtain information regarding whether they had ever had sex and how old they were when they first had sex. For analyses, sexual activity was defined as a three-level categorical variable: (a) not engaging in sex; (b)

later sex, defined as first engaging in sex after the age of 15 (ages 15 and above); and (c) early sex, defined as first engaging in sex before the age of 15 (ages 14 and below). Given that early sexual activity has been linked to later engagement in other forms of risky sexual activity (e.g., having unprotected sex; Greenberg et al. 1992), we used this variable as an indicator of potentially risky sexual activity. Previous studies have defined early sexual activity as behavior occurring before the age of 14 (Lammers et al. 2000).

Externalizing Problems—Information on participants' externalizing problems (e.g., breaking rules, stealing, fighting) was broadly measured from the raw score of the Externalizing scale of the Youth Self-Report (YSR; Achenbach 1991). The YSR is a widely-used and well-validated measure. The Externalizing scale is composed of 30 items and youth are asked to indicate if each item describes them (now or within the past 6 months) on a 3-point scale ranging from "not true" to "very true or often true." In this sample, the alpha coefficient was .83.

Academic Achievement—Participants reported on their academic achievement, which was measured as their most recently completed semester grade point average (GPA).

Contact with the Legal System—Participants completed nine questions about contact they have had with the legal system. For each item, participants were asked to indicate how many times they had any experience with the legal system, measured on a 5-point scale ranging from "none" to "5+ times." Examples of contact with the legal system included being arrested, being accused of a DUI (driving while under the influence) and receiving a moving traffic violation. Self-reports of contact with the legal system have been found to be more accurate estimates of the true number of offenses that adolescents commit as compared to court records (Thornberry and Krohn 2001). Scores were subjected to an exploratory factor analysis (EFA) with varimax orthogonal rotation to determine the factor structure of this measure. The EFA results suggested two factors, which accounted for 68 and 12% of the variance, respectively. These scales included (a) six items related to more severe forms of contact with the legal system (e.g., being arrested, being accused of a DUI) and (b) three items related to less severe forms (e.g., receiving a traffic violation). Alpha coefficients were .90 and .72 respectively, suggesting adequate internal consistency.

Consequences of Substance Use—Participants completed 11 questions to assess any negative outcomes they had experienced as a result of using substances. For each item participants were asked how many times they had experienced any of the consequences (e.g., getting into trouble with parents, throwing up, doing things s/he later regretted), measured on a 5-point scale ranging from "none" to "5+ times." This measure was adapted from the National Longitudinal Survey of Youth 1997 (Center for Human Resource Research (CHRR) 2002). Scores were subjected to an EFA with varimax orthogonal rotation to determine the factor structure of this measure. The EFA results suggested one factor, which accounted for 57% of the variance. The alpha coefficient for this factor was .90.

Procedure

Data were collected during the spring of 2006 on two different days—1 day for students in the 10th grade and an additional day approximately 2 days later for students in the 9th, 11th, and 12th grades. Prior to administration of the questionnaire packets, all students in the school viewed a videotape prepared by the third author that introduced the study, assured students that their participation was voluntary, and explained that all responses to the questionnaires were confidential and anonymous. Parents were asked to provide passive consent, and students were required to provide their own assent (or consent if they were 18 years old or older). Students completed the packets during class periods, and teachers

monitored the questionnaire administration. Teachers were instructed to not walk around the classroom or discuss questions with any student to ensure confidentiality. Questionnaire packets were sealed in response envelopes and collected at the end of the administration period. Strict confidentiality and anonymity were assured as no names or identifying information appeared on any of the forms. All study procedures were approved by the Institutional Review Boards of the participating universities.

Analysis Plan

To test the first hypothesis, bivariate correlations were first examined to determine if the problem behaviors (substance use, externalizing behaviors, early sexual activity, and academic performance) were interrelated. Additionally, a confirmatory factor analysis (CFA) was conducted in Mplus version 3.01 (Muthén and Muthén 2004) to determine if the problem behaviors loaded onto a single factor, which we identified as an underlying general deviance construct. To test the second hypothesis, we first sought to determine if there was one group of youth engaging in all forms of problems behaviors, as we hypothesized that this group might experience more negative outcomes. In order to do this, a two-step cluster analysis was conducted. This type of analysis, as opposed to the more common *k*-means cluster analysis, was necessary given that the early sexual activity variable was categorical (Norusis 2004). A regression analysis was conducted to determine whether engagement in multiple problem behaviors predicted any of the outcomes.

Results

Descriptive Statistics

The means, standard deviations and percentages of the measured problem behaviors are presented in Table 1. The intercorrelations among the problem behaviors are presented in Table 2. All correlations between the problem behaviors were significant ($p < .001$) and in the expected direction, such that higher GPA was negatively correlated with the other measures of problem behaviors, while these problem behaviors (externalizing behaviors, early sexual activity, and substance use) were positively correlated. Approximately 2.5% of the youth in this sample reported engaging in high levels of *all* of the measured problem behaviors. This includes those youth reporting aboveaverage levels (relative to the sample) of drug use and externalizing behaviors, engaging in early sexual activity, and having a below-average GPA. No significant gender differences were found for any of the analyses.

Confirmatory Factor Analysis

CFA with maximum likelihood estimation was conducted to test the first hypothesis that the problem behaviors would load onto and be represented by a single factor representing an underlying general deviance construct. In assessing model fit for a CFA, a nonsignificant chi-square test indicates good fit; however, this statistic has been shown to be sensitive to sample size and the size of the correlations between variables, which leads to over-rejection of adequate models. Therefore, current practice emphasizes the importance of using additional fit statistics to assess model fit (Kline 2005). The root-mean-square error of approximation (RMSEA), comparative fit index (CFI), and Tucker-Lewis Index (TLI) were selected to evaluate our one-factor model as these indices have been shown to be most sensitive to model misspecification. For RMSEA, values $\leq .06$ indicate close fit, and for CFI and TLI values $\geq .95$ indicate reasonably good fit (Hu and Bentler 1998).

Full-information maximum likelihood (FIML) was used to handle missing data (amount of missing data ranged from 2.4 to 6.3% for each variable). For this analysis, the general deviance construct was defined as a latent variable, and a covariance matrix was analyzed. To fit this CFA model, the variance of the latent variable was fixed to 1.00. The fit of our

one-factor theoretical model was good, $\chi^2(4) = 17.80$, $p < .01$, CFI = .98, TLI = .98, RMSEA = .05, $\chi^2/df = 4.45$. Figure 1 shows the standardized and unstandardized factor loadings from the CFA. All of the factor loadings were significant ($p < .001$), and therefore all of the problem behaviors contributed to the structure of the model. The negative loading on the academic achievement measure indicated that lower academic achievement was associated with the general deviance latent variable. In addition, because this was the lowest loading of all the variables, an additional model was run with this variable removed. The fit of this model was adequate, $\chi^2(2) = 12.83$, $p < .01$, CFI = .98, TLI = .97, RMSEA = .07, $\chi^2/df = 6.41$. However, the difference between these two models was not significant, $\chi^2\text{-difference}(2) = 4.97$, $p > .05$, which indicated that the model with the academic achievement variable removed did not provide a relative improvement in fit over the model with that variable included. Additionally, this model was run separately for males and females. The fit of the model was good for males, $\chi^2(4) = 10.93$, $p < .05$, CFI = .98, TLI = .98, RMSEA = .06, $\chi^2/df = 2.73$, and adequate for females, $\chi^2(4) = 15.03$, $p < .01$, CFI = .97, TLI = .97, RMSEA = .07, $\chi^2/df = 3.76$.

Cluster and Regression Analyses

To examine the second hypothesis, we first conducted a two-step cluster analysis with log-likelihood distance measures to determine what types and how many of the problem behaviors certain groups of youth were engaging in. According to the ratio of Schwarz's Bayesian Criterion (BIC) change and the ratio of distance measures, two clusters emerged from this analysis (see Table 3). The first cluster was lower than average (relative to the sample mean) on externalizing behavior and substance use and above average on academic achievement; the second cluster was higher than average on externalizing behavior and substance use and below average on academic achievement. Additionally, all of the youth in the first cluster reported not engaging in any form of sexual activity, while most of the youth in the second cluster fell into the early or later sexual activity categories. Thus, the first cluster included youth who did not engage in high levels of problem behaviors, whereas the second cluster included those who did. Following the terminology used by Luthar and Ansary (2005), we defined the first cluster as the conventional group ($n = 719$) and the second cluster as the non-conventional group ($n = 242$). We were particularly interested in this second group, as we hypothesized that they would experience more negative consequences related to their engagement in problem behavior than the conventional group.

The groups determined by the two-step cluster analysis were then used to establish whether engagement in high levels of problem behaviors was associated with negative outcomes related to substance use as well as contact with the legal system. The group membership variable (indicating whether the youth fell into the conventional or the non-conventional group) was contrast coded to adjust for the differences in number of youth falling into each group. Group membership was found to significantly predict the experience of negative consequences related to substance use, $R^2 = .28$, $F(1, 833) = 323.26$, $p < .001$, less severe forms of contact with the legal system, $R^2 = .11$, $F(1, 833) = 98.93$, $p < .001$, and more severe forms of contact with the legal system, $R^2 = .09$, $F(1, 833) = 84.68$, $p < .001$. The standardized regression coefficients (β s) for the final regression equation were .53, .33, and .30 for consequences related to substance use, less severe forms of contact with the legal system, and more severe forms of contact with the legal system, respectively. As demonstrated by the regression analysis, those youth in the non-conventional (i.e., multiproblem) group reported experiencing more of these outcomes than youth in the conventional group.

Discussion

The purpose of this study was to first examine the extent to which PBT applied to a sample of affluent youth. As predicted, PBT was supported in this affluent sample, as all of the problem behaviors were interrelated and fit onto a single factor (the general deviance construct). Additionally, approximately 2.5% of the youth in this sample reported engaging in high levels of *all* the problem behaviors. Notably, these results are similar to the findings reported by Fergusson et al. (1994) in their high-risk, community sample. Our second goal was to determine whether engagement in these problem behaviors was associated with negative outcomes related to using substances as well as negative legal outcomes. Specifically, we examined whether those youth engaging in problem behaviors would be more likely to experience these outcomes compared to those youth not engaging in these behaviors. Youth in this affluent population fell into one of two groups—youth who either engaged in low or high levels of problem behaviors. Youth in the second group reported experiencing more negative outcomes, including being arrested and doing things they later regretted after using substances.

The findings of the current study have important implications for research related to PBT. Most importantly, we do not know of any studies that directly test PBT with an affluent sample of youth. The results of this study indicate that Jessor and Jessor's (1977) theory applies to other populations, not just those classified as "higher-risk." Additionally, accumulating research on PBT has been confounded by the inclusion of behaviors that do not appear in initial conceptualizations of the theory (e.g., internalizing behaviors). Therefore, we attempted to follow Jessor and Jessor's original definition of "problem behavior" closely by examining observable externalizing problems included in the theory. The current study has provided support for PBT as originally defined by Jessor and Jessor, and is consistent with other studies that have followed this initial definition precisely (e.g., Farrell et al. 2000; Fergusson et al. 1994).

These findings also support and extend prior research conducted by Luthar and colleagues in the Northeastern United States to an affluent community in the Pacific Northwest. The results of the current study identified a subset of youth who engaged in multiple problem behaviors and who experienced several severe, negative outcomes. The outcomes examined in this study have, to our knowledge, not been examined in other samples of affluent youth. Additionally, we included a measure of sexual activity, a behavior that has not been examined in previous research with affluent youth.

There are some limitations of the current study. First, all of the measures are self-report, as the youth were the only ones to report on their engagement in problem behavior. Youth may distort their responses to problem behavior questions; however, self-report measures are still the most frequently used and optimal way to assess these types of behaviors in adolescents (Hser 1993; Johnson and Richter 2004). An additional limitation concerns the cross-sectional nature of the data, which precluded causal explanations. For example, we were unable to determine whether the associated outcomes were a result of or precursor to these problem behaviors. Additionally, we were unable to assess individual levels of affluence of the youth in our sample. Future research should attempt to collect data regarding individual levels of affluence from both adolescents and their parents to differentiate youth who are affluent versus those who are not considered affluent but reside in an affluent community.

These findings have a number of implications for future research with affluent youth. First, researchers should consider sampling from a larger number of affluent communities in order to obtain a greater number of ethnic minority participants so that ethnicity can be examined as a potential moderator. The findings of this study also indicate that it is important to

consider the development of intervention efforts in affluent communities. Much research has focused on the development and implementation of prevention and intervention programs with low-income and middle-class families (e.g., Conduct Problems Prevention Research Group 1999); however, no studies have examined the use of these programs in affluent communities. The programs developed for general community samples of youth and families might be effective for use with affluent youth and their families, and more research needs to be conducted to determine if these programs are beneficial for this population.

Additionally, future research should consider the use of longitudinal studies to identify potential risk factors and early childhood experiences that contribute to the development of problem behavior in both affluent and low-income youth. Specifically, future research is needed to provide more knowledge about the mechanisms underlying the development of multiple problem behaviors in affluent populations and determine the extent to which these mechanisms are similar to those shown to have been operating with low-income youth. These longitudinal approaches may provide some insight into the potential causes contributing to the co-occurrence of multiple problem behaviors and their associated outcomes in adolescents.

Our findings, as well as those reported by Luthar and colleagues, indicate that, contrary to previous perceptions, affluent youth do engage in problematic behaviors and do experience negative outcomes related to these behaviors. This study has contributed to the growing literature on affluent youth and their behavior as well as research concerning the generalizability of PBT. This study has also highlighted the importance of conducting research with affluent youth in addition to traditionally high-risk populations, as accumulating research continues to show that these two populations of adolescents are engaging in similar levels of problem behaviors. The continuing efforts of researchers to elucidate these behavior patterns and mechanisms underlying engagement in multiple problem behaviors will serve to assist youth, their families and their communities.

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Fig. 1.
Structure and standardized and unstandardized factor loadings for the model used in the confirmatory factor analysis

Table 1

Means, standard deviations, and percentages of problem behaviors in affluent youth

Variable	<i>N</i>	Mean (SD)/%
Externalizing behaviors	1,119	11.9 (8.2)
Frequency alcohol, cigarettes, marijuana	1,100	1.0 (1.4)
# Other illicit drugs	1,075	.5 (1.2)
Engagement in sex	1,101	25.8% (<i>n</i> = 286)
No sex		71.8% (<i>n</i> = 824)
Later sex		18.0% (<i>n</i> = 207)
Early sex		6.1% (<i>n</i> = 70)
Age of first sexual experience	272	15.5 years (4.4)
Academic achievement (GPA)	1,087	3.4 (.6)

N's for each variable vary due to missing data. Means and standard deviations provided for all continuous variables; percentages provided for categorical variables. Mean frequency of alcohol, cigarette and marijuana use of 1 corresponds to a response of "1–2 times" in the last year

Table 2

Bivariate correlations between problem behaviors among affluent youth

Construct	Externalizing behaviors ^a	Early sexual activity	Alcohol, cigarette, marijuana use ^a	Other illicit drug use ^a
GPA ^a	-.28 *	-.24 *	-.28 *	-.29 *
Externalizing behaviors	–	.31 *	.47 *	.37 *
Early sex		–	.44 *	.33 *
Alcohol, cigarette, marijuana use			–	.48 *
Other illicit drug use				–

*
 $p < .001$

^aVariables are log transformed for this analysis

Table 3

Cluster means and standard deviations for variables used to define clusters

Variable	<u>Conventional (n=719)</u>		<u>Non-conventional (n = 242)</u>	
	M	SD	M	SD
GPA	3.46	.52	3.14	.65
Externalizing behaviors	10.01	6.62	16.45	9.49
Alcohol, cigarette, marijuana use	.61	1.01	2.06	1.66
Other illicit drug use	.17	.55	1.11	1.84
Early sex ^a	No sex—719		No sex—4	
	Later sex—0		Later sex—183	
	Early sex—0		Early sex—55	

^aValues represent the number of youth who fell into each category