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J Health Psychol 2007; 12; 32

DOI: 10.1177/1359105306069073

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Socioeconomic Status and Substance Use Behaviors in Adolescents

The Role of Family Resources versus Family Social Status

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ACKNOWLEDGMENTS. This research was supported by the William T. Grant Foundation, the Michael Smith Foundation for Health Research and the Human Early Learning Partnership. The authors would like to thank Elizabeth Glass, Louise Berdan, David Langer, Lauren Mueller, Yvonne Raphaelson and Rebecca Saliman for help with data collection.

COMPETING INTERESTS: None declared.

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Journal of Health Psychology
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London, Thousand Oaks and New Delhi,
www.sagepublications.com
Vol 12(1) 32–35
DOI: 10.1177/1359105306069073

Abstract

The aims of this study were to test the associations among socio-economic status (SES) and substance use in adolescents, and to compare the relative strength of associations for different types of SES markers, including financial resources and family social status. A total of 113 teenagers reported their substance use, and parents reported family SES. High SES teens were more likely to use substances than low SES teens. Family financial resources were a stronger predictor of substance use than family status. Programs aimed at reducing teen substance use should be aware of these risk factors when developing substance use interventions.

Keywords

- *adolescence*
- *socioeconomic status*
- *substance use*

INITIAL experiences with illegal substances often occur during adolescence, a life stage characterized by marked biological and social change. Among adults, one social environment factor that has been associated with substance use in previous research is socio-economic status (SES). Overall, findings demonstrate that lower SES is associated with greater substance use among adults (Adler et al., 1994; Lantz et al., 2001; Lynch, Kaplan, & Salonen, 1997; Patterson, Haines, & Popkin, 1994). However, patterns in adolescent populations are less well understood, and may be different from that found in adulthood (Chassin, Presson, Sherman, & Edwards, 1992; Friestad, Pirkis, Biehl, & Irwin, 2003; Johnson, Myers, Webber, Greenlund, & Berenson, 1997). Thus, the present study sought to test: (1) whether associations exist between SES and substance use in teens, and (2) whether different SES measurements result in different relationships with teen substance use.

Method

A total of 113 participants were recruited from a public high school in the St Louis, MO area (mean age = 16.85 years). The sample was racially (42 percent Caucasian, 56 percent African-American, 2 percent other) and economically diverse (21 percent of students eligible for the federal free lunch program; average family income = \$50,000–74,999; 44 percent of parents with a college degree or higher), and was representative of the study body. The Washington University IRB approved the study protocol.

Socioeconomic status (SES)

Parents provided information on two SES measures: family social status (e.g. parent education and occupation) and family financial resources (e.g. family income and savings). Family social status was computed using the Hollingshead Four Factor Index of Social Status (Hollingshead, 1975). Family resources was computed by standardizing and summing family income and savings.

Substance use

Teens reported their cigarette smoking, alcohol and drug use behaviors via the Health Behaviors Questionnaire (Bureau of Labor Statistics, 2000).

Results

SES indicators and substance use

After controlling for age, gender and race, teens with greater financial resources were more likely to have ever tried cigarettes (OR = 1.75, 95% CI: 1.00–3.07, $p < .05$), but effects were not significant for ever trying alcohol (OR = 1.42, 95% CI: .79–2.54, NS), or drugs (OR = 1.72, 95% CI: .96–3.09, NS). Family social status did not predict the likelihood of ever trying substances.

Greater family financial resources were associated with greater frequency and quantity of cigarette smoking ($r = .18$, $p = .05$), alcohol use ($r = .26$, $p < .01$) and drug use ($r = .26$, $p < .01$). Family social status was positively related to greater frequency and quantity of smoking ($r = .19$, $p = .05$), and alcohol use ($r = .20$, $p < .05$), but not drug use ($r = .12$, NS).

Simultaneous analyses of the role of SES

We conducted simultaneous linear regression analyses to determine which type of SES marker had the strongest relation with adolescent substance use. For cigarette use, we found that neither family finances nor family social status was a superior predictor of use. Family finances ($\beta = .23$, $p < .05$), but not social status ($\beta = .09$, NS), significantly predicted teen alcohol use. Family finances were also more predictive of drug use than family social status scores ($\beta = .29$, $p < .05$ and $\beta = -.02$, NS respectively). See Table 1.

Table 1. Simultaneous Linear Regression for SES Indicators and Substance Use

SES Indicator	Family Social Status		Financial Resources	
	β	<i>P</i>	β	<i>P</i>
Cigarette Use	.13	.26	.14	.25
Alcohol Use	.09	.43	.23	.05
Drug Use	-.02	.86	.29	.02

Note: Regression analyses included both family social status and financial resources simultaneously predicting each substance use behavior. Age, race, and gender were statistically controlled for in these analyses.

Discussion

The results of this study demonstrated that high SES teens reported more cigarette, alcohol and drug use than low SES teens. These findings are in contrast to some studies that reported greater substance use behaviors in low SES populations (Chassin et al., 1992; Droomers, Schrijvers, Casswell, & Mackenbach, 2003; Duncan, Duncan, Strycker, & Chaumeton, 2002; Ellickson, McGuigan, Adams, Bell, & Hays, 1996; Glendinning, Shucksmith, & Hendry, 1994; Lowry, Kann, Collins, & Kolbe, 1996; Wardle et al., 2003). However, it is consistent with recent research that has documented certain types of detrimental outcomes, such as substance use, delinquency and depression, among higher SES teens (Luthar & Becker, 2002; Luthar & D'Avanzo, 1999). Teens from higher SES backgrounds may feel safer experimenting with substances than lower SES teens (Luthar & D'Avanzo, 1999), or may suffer from achievement pressures and isolation from adults (Luthar & Becker, 2002; Luthar & Latendresse, 2005; Steinhausen & Metzke, 1998) leading to greater substance use behaviors.

We found that financial resources were more predictive of substance use behaviors than family social status. This suggests that it may be the availability of financial resources, more than the social status associated with having parents with high education and good jobs, which influences substance use in teens. Limitations of this study include the sample being small, self-selected and from one geographical region, reducing generalizability. However, we did recruit both parents and adolescents to gather more accurate SES information, and as a result we were able to do direct comparisons of social status versus financial resources. Parents are more likely to have accurate information on the financial and occupational details of the family, and therefore parent-reported SES measures may be more valid than the teen-reported SES often used in past research.

In conclusion, results from this study suggest that teens with greater financial resources and higher family social status are using substances more than low SES teens. Financial resources appear to be the most salient SES determinant of teen substance use behaviors. More research is needed to determine the reasons why higher SES teens report greater cigarette, alcohol and drug use. Through a better understanding of the factors contributing to teen substance

use behaviors, programs aimed to reduce their use may elicit greater change, curbing early experimentation before long-term health is damaged.

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