

Transgenerational Effect of Substance Abuse Between Students, Parents, and Grandparents

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INTRODUCTION

Researchers have found that in addition to causing learning disabilities and birth defects, parental use of substances such as alcohol and opiates increase the risk of substance use in their future children (Vassoler et al., 2014; Vermeulen-Smit et al., 2012). Researchers have also found that grandmothers can contribute to or detract from the survivorship of the grandchildren depending on nutritional provisioning and the genetic relation between the grandmother and grandchild (Fox et al., 2009). The multigenerational transmission process theory, supports the transmission of behaviors through familial lines. If the parents and grandparents can have such an effect on a child's health how much of their behavior is an indicator of the child's future behavior?

RESEARCH QUESTION

Is the substance abuse past of parents and grandparents a good indicator of a student's susceptibility to indulge in alcohol, illicit drugs and sexual behaviors?

OBJECTIVES

In 2014, NIAAA reported that 1,825 students between the ages of 18 and 24 died from unintended alcohol related injuries, 97,000 have been victims of alcohol related sexual assault and 690,000 have been assaulted by someone who was drinking. The purpose of this study, was to examine the relationship between a student's substance usage and the substance abuse behaviors of parents and grandparents. Students at the university sign a pledge not to use alcohol or any illicit substances as well as not to engage in extramarital sexual activity as a measure to protect the health of the students. The survey used in this study was conducted to obtain information about the family context of student substance use that might facilitate campus prevention efforts.

References

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METHODS

The data were collected at a mid-western Christian university using a purposive sampling method of classes that would represent the socio-demographics of the student population. Trained personnel distributed the survey using an anonymous paper survey and entered the data into SPSS 21. The study was approved by the university's IRB committee. The purpose of the survey was to examine risk and protective factors in student health risk behavior. The total number of subjects is 750.

Data are presented examining:

- Table I**-The percent of students reporting ever using substances & having family members with substance abuse problems compared to students reporting their family members did not have substance abuse problems
- Table II**-The percent of students reporting engaging in sexual behaviors having grandparents with substance abuse problems compared to students who reported their grandparents did not have substance abuse problems

Table I	Mother problem		Father problem		Grandparent problem	
	Yes	No	Yes	No	Yes	No
Student ever used alcohol	53.1%	41.1%	59.6%	38.6%	50%	39.4%
Yes			***	***	*	*
[Effect size]	[.051]	[.051]	[.149]	[.149]	[.089]	[.089]
Student ever used marijuana	31.3%	15.5%	25.2%	14.7%	23%	14.4%
Yes	*	*	**	**	*	*
[Effect size]	[.090]	[.090]	[.102]	[.102]	[.095]	[.095]

Table II	Grandparent problem	
	Yes	No
Students who had sex within the last year (unmarried) Yes	39.7%**	28%**
[Effect size]	[.103]	[.103]
Students who have ever engaged in oral sex Yes	52.9%**	39.7%**
[Effect size]	[.110]	[.110]

*p<.05 **p<.01 ***p<.001
Effect size determined by Cramer's V

Using Chi Square Analysis

RESULTS

- Students whose fathers or grandparents had a substance abuse problem were significantly more likely to have used alcohol than those whose fathers and grandparents did not have a substance abuse problem.
- Students whose mothers, fathers, or grandparents had a substance abuse problem were significantly more likely to have used marijuana than students whose parents or grandparents did not have a substance abuse problem.
- Students whose grandparents had substance abuse problems were significantly more likely to have engaged in both vaginal and oral sex than students whose grandparents did not have substance abuse problems.
- While the percentage differences shown are statistically significant at least at the .05 level, it is important to note that the effects sizes, while consistent, are small.

CONCLUSIONS/ FURTHER RESEARCH

- Grandparents and paternal substance abuse problems may be indicators of risky behaviors in students. Yet, the small effect size means that familial substance abuse problems are only one determinant of students' behaviors.
- Future studies could look into discovering how familial behaviors influence students' behaviors- whether it is genetic or environmental and what factors turn these influences 'on' or 'off'.
- This study did look at other drugs, such as, opiates, prescription drugs, cocaine and amphetamines, however there was a very small number of students who reported using these substances which would make a valid analysis very difficult.
- The knowledge of familial substance abuse past was self reported by the students. There is a possibility that not all students fully knew their family's substance abuse history
- This research was conducted at a prohibitionist university. Future research can see if these results are replicable with stronger effects in non prohibitionist schools or if it is due to the culture fostered by the university.

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