

Tobacco Susceptibility Among Mississippi Youth: The Parental Influence

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Abstract

Cigarette smoking is the leading cause of preventable death in the United States. Most smokers begin smoking before age 18, so efforts to disrupt the trajectory from susceptible smoker to established smoker are critical. Although the etiology of adolescent smoking is complex, knowledge of the harms of tobacco is one important factor. The family unit is an important influence on youth's knowledge and beliefs about tobacco use. This study examined whether parents discussing the harms of tobacco with their children relates to the youth's susceptibility to smoking. Specifically, we investigated the relationship between parental discussions and susceptibility while statistically controlling for demographic characteristics. We also examined potential mediators and moderators of this relationship.

To examine this relationship, we used a logistic regression model to regress susceptibility to smoking on parental discussions, while statistically controlling for other social influences and attitudes about the tobacco companies; using data from the 2008 Mississippi Youth Tobacco Survey (MS YTS). With technical assistance from the CDC, we administered the 2008 Mississippi Youth Tobacco Survey (MS YTS) to 3,906 Mississippi public middle school students in the spring semester of 2008. Youth who had never tried cigarettes and reported that they would definitely not do so were classified as not susceptible, those who had not tried cigarettes but who did not report that they would definitely not do so were classified as susceptible.

Adjusted odds ratios indicated that youth who reported that their parents had not discussed the dangers of smoking were 1.48 times as likely to be susceptible to smoking as those who parents had done so ($p < .001$). This demonstrated that the risk for susceptibility persisted, even after controlling for demographic factors. Subsequent analyses revealed that this relationship might be partially moderated by having friends who smoke, but that the role of parent discussions and susceptibility tends to be mediated through increased knowledge of the harms of tobacco. Given the ease of prevention relative to cessation of smoking, CDC guidelines encourage efforts to reduce susceptibility or to prevent susceptible youth from experimenting with tobacco. Tobacco control efforts should strive to educate parents about the importance of discussing tobacco with their children.

Table 1. Univariate Statistics

Sample Characteristic	%
Total	100.0
Male	50.7
Female	49.3
White	45.0
African American	50.7
Other	4.3
6 th	35.3
7 th	34.6
8 th	30.0
Susceptible to Smoking	71.6
Not Susceptible to Smoking	28.4
Parents Discuss Tobacco Dangers	51.8
Parents Do Not Discuss Tobacco Dangers	48.2

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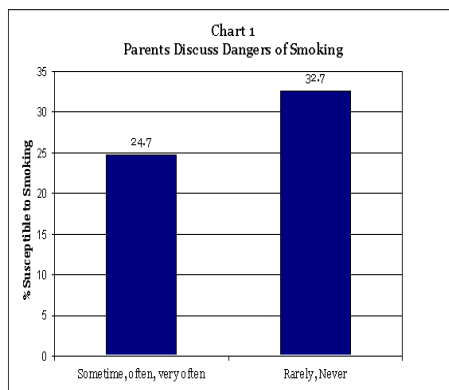
Introduction

Much of the social psychological research regarding cigarette smoking use and adolescents focuses on social influences as well as the role of peer groups, exposure, social norms. Many studies have recognized that there is a significant increase in risk for adolescent smoking initiation when exposure from parents and peers smoking is involved.

Although it has been established that parental discussions affect the initiation of cigarette use, fewer studies have examined the influence of other variables on this relationship, such as the mechanism for which it exists and when it is most effective. Studies, such as those done by Sargent and Dalton (2001) illustrates the important role parents play in adolescent's smoking susceptibility. Adolescents who perceive that parents would respond negatively to smoking are less likely to do so. In fact, parental disapproval was a much stronger effect than parental use of tobacco, showing that parental disapproval was just as influential whether coming from a smoking or nonsmoking parent. However, most studies on this topic conclude that parental smoking increases the risk for smoking initiation, escalating throughout the course of adolescence.

Guided by both theory and research, this study examines the relationship of adolescent smoking susceptibility and parental discussion. Based on previous research, we predict that adolescents who live in a home where parents actively discuss the dangers and repercussions of smoking initiation will be less likely to initiate smoking than those who do not have parental discussions. We also predict that this effect will be stronger for those who have social norms that reinforce a negative view of smoking as well as for those who have fewer close friends who smoke.

Hypothesis: Based on previous research, we predicted that individuals whose parents discussed the dangers of smoking would be less likely to be susceptible to smoking. We expected that parental discussion to continue to be a significant predictor of smoking susceptibility even after controlling for other demographic variables.



Methods

The Mississippi Youth Tobacco Survey (YTS) assesses self-reported tobacco use, exposure to secondhand smoke, knowledge and attitudes, and smoking susceptibility factors. The YTS was designed by the CDC to enhance the capabilities of states agencies to design, implement, and evaluate their statewide tobacco control program. Data was collected in the spring semester of 2008 via anonymous self-administered questionnaires. A multi-stage sample design was applied with public middle schools selected with a probability proportional to enrollment size. Classrooms were chosen randomly and all of the students in selected classes were eligible for participation. A weighting factor was applied to each student record to adjust for non-response at the school, class, and student levels. SPSS Complex Samples software was used to calculate standard errors for estimates and 95 percent confidence intervals. Multivariate logistic regression models were specified to examine the relationship of parental discussion with smoking susceptibility while controlling for demographic factors.

Each respondent indicated whether they had tried smoking or had never tried smoking. Students who reported having never tried cigarette smoking were categorized as susceptible to smoking. One item assessed how often parents discussed the dangers of tobacco use. Two items assessed the beliefs about the dangers of smoking and included questions addressing the perceived safety of low tar cigarettes as well as the perceived safety of smoking daily. Three items measured the likelihood of trying tobacco products. Two items assessed the exposure to close peers who smoke or use other forms of tobacco products. The perceived social benefits of smoking was also assessed.

Results and Discussion

The overall response rate for our public middle school sample was 63.2% (N=3,906). Table 1 summarizes the demographic characteristics of our sample.

Summary

Overall, our results revealed that exposure to parental discussion did decrease youth smoking susceptibility.

Initially, we examined the relationship between parental discussion and smoking susceptibility while controlling for grade, gender, and race. Using a series of logistic regressions we examined this relationship and found that individuals whose parents or guardians discussed the dangers of tobacco use sometimes, often, or very often were 1.48 times less likely to be susceptible to smoking. Using cross tabulations, it was found that 32% of middle school girls were susceptible to smoking as opposed to 25% of middle school boys. Also, it was found that sixth grade students were more likely to experience this protective factor against susceptibility than students in other grades.

Second, we examined the same relationship between media and smoking initiation while controlling for the perceived social value of smoking. The predictive power of parental discussion was only weakened minimally when including these variables concluding that it was still an important risk factor for smoking susceptibility.

Hypothesis 1: In all of our logistic regressions, parental discussion was a significant protective factor against smoking susceptibility for our middle school sample. After examining other significant risk factors including sociodemographic factors, perceived social benefits, perceived danger of smoking, parental discussion was still a significant predictor of smoking initiation. These results confirm our hypothesis.

Implications

These findings add to the previous literature showing that parental discussion about smoking does influence our youth and their susceptibility to begin smoking. These findings suggest that anti-tobacco initiatives should be extended to education of parents about the rewards to discussing the dangers of smoking with their children.

Caveat

A significant drawback of this study is that it is a programmatic survey which seeks to examine smoking from a behavioral perspective and not necessarily a psychological perspective. The data in this study was gathered from a previously administered survey, so we were unable to design our own questionnaires to examine these variables more effectively.

Future Directions

Further exploration of the relationship between smoking susceptibility and parental discussion is needed. In particular, examination of parental education level and smoking habits may potentially add to our knowledge as to what increases the possibility that parents will speak to their children about smoking dangers. This research may add to the anti-smoking initiative to not only target young people, but to encourage parents to be proactive in preventing their child from smoking.

References:

Sargent, J. & Dalton, M. (2001). "Does Parental Disapproval of Smoking Prevent Adolescents From Becoming Established Smokers?" *Pediatrics*, 108, 1256-1262.

Table 2. Logistic Regressions

Protective Factor	Adjusted Odds Ratio	P-Value
Parental Discussion about Smoking	1.481 (1.247-1.760)	<.001
Demographic Factors		
•White	1.0	<.001
•Black	.844 (.686-1.040)	<.001
•Male	1.215 (1.00-1.477)	<.05
•Female	1.0	<.05
•6 th Grade	1.509 (1.134-2.008)	<.012
•7 th Grade	1.254 (.971-1.618)	<.012
•8 th Grade	1.0	<.012

* Adjusted for sex, grade, and race.