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# The Slippery Slope: A Connection Between Smoking and Drug Attitudes

## **Abstract**

This research investigated how an individual's self-reported smoking status between the ages of 15 and 25 relates to an individual's current attitude on recreational drug use. Participants responded to an online survey asking about their opinions of the wrongness of drug use in six categories. The group of participants who identified as a smoker between the ages of 15 and 25 has a significantly higher score than the group of participants who identified as a non-smoker during the same ages. The mean score for those who identified as a smoker ( $n=65$ ) was 14.27. The mean score for those who identified as a non-smoker ( $n=67$ ) was 10.57. There was a significant difference between the smokers and non-smokers,  $t(130) = 3.46$ ,  $p < .05$ . This difference indicates smokers have a more accepting attitude regarding drug use than non-smokers.

## **Keywords**

adolescents, attitudes towards drug use, gateway drug, risky behavior, smoking

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## INTRODUCTION

In 1965, the United States Congress passed a law requiring all cigarette packaging in the United States to bear a warning outlining the health risks of smoking. This new requirement effectively raised awareness, increasing the number of Americans who believed that smoking causes cancer from 44 percent in 1958 to 78 percent in 1968 (The 1964 Report on Smoking and Health, n.d.). Because of this policy change, the majority of American adults are now familiar with the primary health risks associated with cigarette smoking. The Drug Enforcement Agency is committed to providing information regarding the primary health risks and secondary social risks associated with illicit drug use and addiction through their education campaign, Just Think Twice, and through their support of the Drug Abuse Resistance Education (D.A.R.E) (Drug Prevention, n.d.). However, many Americans still may not be aware of the strong correlational relationship between cigarette smoking and illicit drug use. Although a number of studies show this correlational relationship, the information is not readily available to the general public (Kandel, & Yamaguchi, 1993; Torabi, Bailey, & Majd-Jabbari 1993). When media outlets and government agencies broach this topic, their audiences are usually referred to the National Institute of Drug Abuse's report on cigarette and illicit drug abuse (Zickler, 2000). Unfortunately, this particular report only discusses two articles, both of which restrict their discussions to the physiological or pharmacological effects of cigarette smoking and illicit drug use. If Americans were informed of this relationship they would likely find very alarming the idea that adolescents, or those transitioning from childhood to adulthood, who identify as smokers are 10-30 times more likely to use illicit drugs than their non-smoking peers (Torabi et al., 1993).

Understanding the risks children are exposed to is crucial to the ability to protect them from harm. Fifty years ago, risky behavior may have included drinking beer and taking your date to lover's lane. Today the risks taken can have much more serious consequences. With drugs like crack cocaine and meth-amphetamine circulating in American high schools, the chance a person can become addicted to a life-changing drug is very serious. There is importance in understanding what causes a person to take a risk so preventative measures can be taken at the appropriate developmental stage and in a way meaningful to young people.

Approximately 16% of Americans consider themselves regular smokers despite the overwhelming evidence that smoking is detrimental to their health (American, 2008). Since fully engaging in a habit one knows to be dangerous is often difficult for people to accept, it is believed smokers find ways to downplay the personal risks of cigarette smoking (Stacy, Bentler & Flay 1994). Some smokers may compare themselves to their peers in order to mitigate the risks of their behavior (Lindsay & Rainey, 1997). Others may avoid the contradictory situation by putting the idea of health risks completely out of their conscious mind (Gerrard, Gibbons, Benthin, & Hessling, 1996). Creating rationalizations for their behavior may help other smokers resolve the cognitive dissonance they experience (Lindsay et al., 1997). A prevalent rationalization made by smokers is that smoking cigarettes is personal issue and therefore only affects the smoker (Nucci, Guerra, & Lee, 1991). Because of this, the smoker may disregard how the effects of their actions, including health issues and possible early death, may impact their loved ones.

Since approximately 20% of high school students identify as cigarette smokers, it is important to understand how risk-taking behavior affects the decision to begin smoking (Office on Smoking and Health, 2009). Adolescents take risks with greater frequency than any other age group (Harris, Duncan, & Boisjoly, 2002). Some researchers have suggested during adolescence, the attempt to show independence and maturity may create behaviors that are reckless and problematic (Harris et al., 2002). This may be because adolescents have greater opportunities for risk taking behavior, or they may have low self-control and an inflated sense of invulnerability to harm. Smoking, along with many other risk-taking behaviors, is often viewed as a form of rebellion (O'Connor, Fite, Nowlin, & Colder, 2007). Activities deemed legal for adults, such as smoking cigarettes and drinking alcohol, may seem disproportionately pleasurable and exciting to a young person. In breaking the law by possessing and using tobacco under the legal age of 18, there is positive reinforcement of their risk-taking and rebellious behavior (Lindsay et al., 1997).

Many young smokers may simply not believe the health warnings about cigarettes are real (Lindsay et al., 1997). The negative symptoms associated with smoking typically take several years to appear. A young smoker can look at his or her smoking peers and justify their behavior by observing their friends lack of health issues associated with smoking. Without personally witnessing the detrimental effects of smoking, some young smokers may underestimate or distrust the health risks they have been warned about. Comparison with peer groups may play an additional role in acceptance of smoking behaviors. If a smoker notices, consciously or unconsciously, his or her smoking peers use tobacco as a coping mechanism or as a

way to relieve boredom, it is more likely the smoker will mimic the behavior (Lindsay et al., 1997).

The above ideas and examples of why a person might smoke can also be used to explain why a person might use illicit drugs. Furthermore, it would be reasonable to deduce smokers are more likely to engage in illicit drug use for precisely the reasons described here. In other words, if a smoker has already downplayed, mitigated, rebelled, compared, rationalized or enjoyed his or her cigarette smoking, researchers can speculate the smoker will do the same with illicit drugs.

Current literature on the relationship between smoking and attitudes toward drug use is limited. There is a common belief marijuana acts as a gateway drug to other illicit drugs, but very few researchers have looked at the idea cigarettes may act as a gateway to marijuana and other illicit drugs (Kandel et al., 1993; Torabi et al., 1993). This study adds to the current data available on the topic of gateway substances, or those drugs whose use may lead to the use of more addictive or harmful drugs. The research question which prompted the researchers to conduct this study is: Does cigarette smoking during adolescence and the young adult years lead to a more positive attitude towards the use of illegal drugs? The researchers hypothesize people who smoke between the ages of 15 and 25 will have a more accepting attitude toward illegal drug use.

## **PARTICIPANTS**

The participants were chosen using the non-random snowball sampling method. Emails were sent to various potential participants familiar to the researchers. Potential participants included work, school and social colleagues of the researchers. These

emails included a brief explanation of this study, a link to the online survey and a request for the recipients to forward the researchers' email to other potential participants. Although the researchers may have known the recipients of the original emails, all participant data was kept anonymous. Due to this method of participant recruitment, it was not possible to compare the number of potential participants with the number of actual participants. Complete responses from 132 participants were included in the final data set. The age ranges were as follows: 18 – 26 (10.4%), 27 – 47 (71.1%), 48 – 65 (17.8%), 66 – 83 (.7%), and 83 < (0.0%). Of the 132 participants, 47 of the participants were female (35.6%) and 85 were male (64.4%). Since this was a study of smoking behaviors and attitudes about drugs, the final demographic question asked the participant if they considered themselves a smoker at any time between the ages of 15 and 25. Of the 132 participants, 65 of the participants responded "yes" (49.2%) and 67 of the participants responded "no" (50.8%).

## **METHODOLOGY**

The researchers used a quantitative survey to collect data from the participants. The survey was posted on SurveyMonkey.com and was open to participants from February 12<sup>th</sup> to February 25<sup>th</sup>, 2008. The survey consisted of six identical questions, all asking for an opinion on how wrong the participant believed drug use in a given category to be. For example, "I believe the recreational use of stimulants such as cocaine, crack, methamphetamine, Adderall or Ritalin is wrong." The survey questions were adapted from the Social Values Inventory Questionnaire (SVIQ) (Nucci et al., 1991). The SVIQ was chosen for the similarity between the purpose of the original survey and the goals of the current study. Additionally, the validity of the

SVIQ was determined by the original researchers who found that the results could be generalized to the population targeted by the original study (Nucci et al., 1991). The original SVIQ asked participants to rate the wrongness of 27 different behaviors, including theft, use of cigarettes, consumption of alcohol, and the use of illicit drugs. Only the questions from the original SVIQ pertaining to the wrongness of illicit drugs were used in the current study. The categories of drugs were cannabis, stimulants, opiates, depressants, hallucinogens and "club drugs". Each category had several examples of specific drugs. Each category was given a 5-point Likert scale to assess the wrongness of the drug behavior (1 – strongly agree, 2 – agree, 3 – neutral, 4 – disagree, and 5 – strongly disagree).

The participants were sent an email with a link to the online survey. When the participants accessed the survey, they were asked to read and sign a consent form for their responses to be used in the study. The participants were then asked to evaluate their attitudes on the drug categories and select, on a scale of one to five, how wrong they believed drug use in each category to be. The survey questions were not counterbalanced and all participants were presented the survey questions in the same order. The participants then had the opportunity to request the final results of the study by providing an email address. The participants were then asked to submit their response electronically.

The final data set was analyzed by downloading the survey results from SurveyMonkey.com into an Excel spreadsheet. The data was then transferred into SPSS and an independent t-test was run to look for means and statistical significance. Only complete surveys were

used in the final data analysis. If a participant neglected to answer any of the survey questions, that participant's data was not included in the final data analysis. Researchers compared the total mean scores between self-identified smokers and non-smokers on their opinions of the wrongness of drug use. The independent variable in this study was a participant's self-identified status as a smoker between the ages of 15 and 25. The dependent variable was a participant's attitude on the use of drugs.

## RESULTS

The lowest possible total score for a participant was 6. This would occur if a participant had chosen "Strongly Agree," a value of 1, for the wrongness of each of the six drug categories. The highest possible total score for a participant was 30. This would occur if a participant had chosen "Strongly Disagree," a value of 5, for the wrongness of each of the drug categories. The mean score for those participants who had identified as a smoker between the ages of 15 and 25 ( $n=65$ ) was 14.27 ( $SD=7.09$ ). The mean score for those who had identified as a non-smoker between the ages of 15 and 25 ( $n=67$ ) was 10.57 ( $SD=5.08$ ). The mean difference between the groups was 3.08. There was a significant difference between the smokers and non-smokers,  $t(130) = 3.46$ ,  $p < .05$ . The observed difference between the group's means is significant.

## LIMITATIONS

There are limitations to this study; the most significant being the researchers could not identify causation for the initial use of cigarettes or drugs. Since the participants who self-identified as smokers in this study were not asked why they initially started smoking, it is not possible to use the results of this study to determine if the initial reason for smoking has an impact on an individual's attitude toward illicit drug use.

Smoker Designation	M	SD	N
Smoker	14.27	7.09	65
Non-Smoker	10.57	5.08	67

*Note:* The observed difference between the group means is significant, Mean Difference = 3.08,  $t(130) = 3.46$ ,  $p = .001$

Figure 1. Means, Standard Deviation, and Sample Size of Self-Identified Smokers and Attitudes Towards Illicit Drug Use

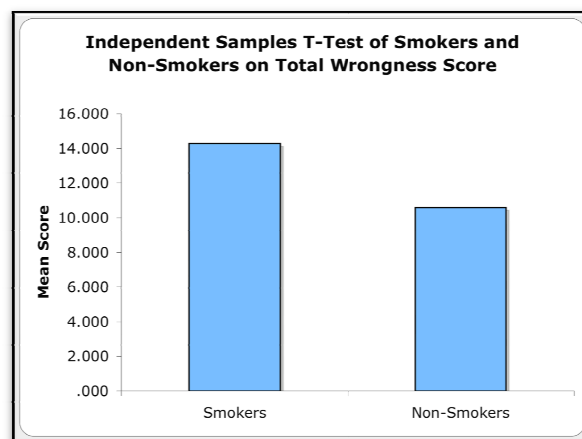


Figure 2. Mean Scores on Attitudes Towards Illicit Drug Use

Another limitation was the decision not to ask participants about their current and historical drug use, and their knowledge of the drugs mentioned in the survey. Without a clear picture of a participant's past or current illicit drug use, it would be difficult to predict the participant's future illicit drug use or show that cigarette use acted as a gateway and preceded drug use. Additionally, it may have been useful to ask participants questions which would allow the researchers to gauge why participants feel illicit drug use is wrong or not wrong.

By determining if participants judge illicit drug use by moral, social, personal or general cautiousness, it may be possible to gain a better understanding of why people engage in risky behavior (Nucci et al., 1991). Finally, the study assumed participants were familiar with the drugs listed in the survey. The illicit drugs listed on the survey were not defined and the participants were not given the option to indicate they had no knowledge of the drug. It is possible participants may have chosen "Neutral" when assessing their attitude toward the use of a drug they knew little about. Not offering an option for those participants who had no knowledge of a drug may have skewed the results of the survey for some individuals.

## DISCUSSION

The findings of this study are consistent with the researcher's hypothesis. The results show people who self-identified as smokers between the ages of 15 and 25 have a more accepting attitude toward illicit drug use than people who did not self-identify as smokers between the ages of 15 and 25. The results of this study support other research which indicates people who identified as smokers for at least some portion of their lives have a more accepting attitude towards illicit drug use (Kandel et al., 1993; Lindsay et al., 1997). Although participants were not asked about their current or historical illicit drug use habits, the findings of this study do fit with the drug-taking progression found in other studies (Kandel et al., 1993; Torabi et al., 1993).

The drug-taking progression often begins with cigarette smoking (Kandel et al., 1993; Lindsay et al., 1997). By understanding the theories surrounding the psychological mechanism leading to smoking, it is easier to grasp why approximately one in 30 self-identified smokers progress to other legal

and illegal drugs (Torabi et al., 1993). In other words, if a person is able to adjust their attitudes about the grave social and health risks associated with smoking, it is possible to believe the person will be able to do the same with other risky behaviors. Some of this may come from surviving the initial decision to smoke. If a smoker perceives they have remained unharmed after developing a smoking habit, the smoker may be more likely to view other risky behaviors, such as smoking crack, to be only slightly more dangerous than cigarette smoking (Lindsay et al., 1997). This is why the researcher's felt it was important for this study's participants to self-identify as smokers or non-smokers instead of providing a definition of a smoker for the participants' to compare to themselves. The researchers felt it was important to evaluate each participant's attitude toward illicit drugs with their attitude towards their own smoking behavior; in this case whether or not they viewed themselves as a smoker between the ages of 15 and 25.

Although small in scope, this study has generated ideas for further research. The creators of this study believe a qualitative study on initial tobacco use would be a particularly useful addition to the existing literature on the causes of smoking. The researchers also feel it would be beneficial to study the attitude of smokers and non-smokers towards other risky behaviors such as gambling and sexual habits. Similar studies that look at different behaviors may serve to further emphasize or expand the ideas expressed in this experiment.

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