

**ADOLESCENT PERCEPTIONS OF DELINQUENT BEHAVIOR BASED ON
INDIVIDUAL SMOKING STATUS: FRIENDS AND PEERS**

A Thesis

by

CORTNEY NICHOLE THOMSEN

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

May 2012

Major Subject: Health Education

**ADOLESCENT PERCEPTIONS OF DELINQUENT BEHAVIOR BASED ON
INDIVIDUAL SMOKING STATUS: FRIENDS AND PEERS**

A Thesis

by

CORTNEY NICHOLE THOMSEN

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

Approved by:

Co Chairs of Committee,	E. Lisako J. McKyer
	Matthew Lee Smith
Committee Member,	Buster E. Pruitt
Head of Department,	Richard B. Kreider

May 2012

Major Subject: Health Education

ABSTRACT

Adolescent Perceptions of Delinquent Behavior Based on Individual Smoking Status:

Friends and Peers. (May 2012)

Cortney Nichole Thomsen, B.S., Texas A&M University

Co-Chairs of Advisory Committee: Dr. E. Lisako J. McKyer
Dr. Matthew Lee Smith

Adolescent social influence is a contributing factor to higher rates of delinquent behaviors such as tobacco use, alcohol abuse, illicit drug use, and sexual activity. The objective of this study is to assess how the distinction between the perception of two social groups, peer and friend, influences behavior based on individual smoking status. Data from the 2006 Adolescent Health Risk Behaviors Survey is used for secondary analysis using questions that address individual perception of delinquent behavior based on peer (“people your age”) and friends. An independent samples t-test is used to assess the combined friend and peer perception based on lifetime smoking status (non-smokers and smokers). Next, a paired samples t-test using the significant variable of smokers only is used to measure the difference in perception of the social groups, peer vs. friend. The data indicated that there is a perceived difference between social groups behavior based on smoking status with smokers perceiving their peers to be more delinquent than their friends. There is a need for further research to address true prevalence rates in adolescent social groups and education efforts to focus on the dynamic of social interactions that influence delinquent behaviors.

ACKNOWLEDGEMENTS

I would like to thank my committee co-chairs, Dr. McKyer and Dr. Smith, and my committee member, Dr. Pruitt, for their expertise and help throughout this process. I would also like to thank Dr. Ward for being so gracious as to be a substitute during my defense and for her input.

I would like to give a special thank you to my family and friends who have supported me. Your faith in me has been a constant source of encouragement throughout my education. So thank you mom, dad, and little brothers for your steadfast optimism and belief in me.

NOMENCLATURE

AHRBS	Adolescent Health Risk Behavior Survey, the instrument utilized in this study for secondary data analysis.
DELINQUENT BEHAVIORS	Conceptualized as the aggregate of the following high-risk socially influenced behaviors: Tobacco use, alcohol use, illicit drug use, and sexual activity.
PEERS	A social group that is defined in the AHRBS questionnaire as “people their age”.
FRIENDS	A social group that is conceptually described as people their age who are important to them and defined in the AHRBS questionnaire as “your friends.”

TABLE OF CONTENTS

	Page
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
NOMENCLATURE.....	v
TABLE OF CONTENTS	vi
LIST OF TABLES	viii
INTRODUCTION.....	1
Social Influence.....	1
Tobacco Use, Illicit Drug Use, Alcohol Use, and Sexual Activity.....	2
The Present Study.....	3
METHODS.....	4
Sample Population.....	4
Measures.....	4
Smoking Status.....	5
Behavioral Constructs	6
Data Analysis	7
RESULTS.....	8
Descriptive Analyses.....	8
Perceived Delinquency by Smoking Status	8
Perceptions of Friends vs. Peers Delinquent Behaviors Among Smokers....	9
DISCUSSION	10
Perceived Delinquency by Smoking Status	10
Perceptions of Friends vs. Peers Delinquent Behaviors Among Smokers....	11
CONCLUSION	13
Implications for Health Education and Promotion Practice.....	13

	Page
Implications for Health Education and Promotion Research	14
REFERENCES	15
APPENDIX A: AHRBS INSTRUMENT	18
APPENDIX B: FACTOR ANALYSIS	26
APPENDIX C: T-TEST ANALYSES	31
APPENDIX D: DESCRIPTIVE STATISTICS	35
VITA	40

LIST OF TABLES

TABLE		Page
1	Distribution of Sample Population by Grade	4
2	Perceptions of Peer Behaviors: (Peer Is Defined as “People Your Age”).	6
3	Perceptions of Friend Behaviors.....	6
4	Smokers and Non Smokers: Perception of Peer Delinquency	8
5	Smokers and Non Smokers: Perception of Friend Delinquency.....	9
6	Smokers Only: Perception of Higher Peers or Friends Delinquency.....	9

INTRODUCTION

The stage of adolescence can be described as one of the most complex in human development, with puberty accounting for dramatic changes biologically and cognitively (Forbes & Dahl, 2009). Subsequently, there is an increased risk of negative social influences and perceptions that affect how the adolescent can control their emotions and behaviors (Dahl, 2004). Adolescent social influence has been identified as a contributing factor to higher rates of risk taking behaviors such as tobacco use, alcohol abuse, and sexual activity (Dahl, 2004; Mayberry, Espelage & Koenig, 2009). Dahl (2004) emphasized that throughout the span of adolescent development, “morbidity and mortality rates increase 200%” (pg. 3). For purposes of this study, *delinquent behaviors* are conceptualized as the aggregate of the following high-risk socially influenced behaviors: tobacco use, alcohol use, illicit drug use, and sexual activity.

Social Influence

Negative social influence and perception has the potential to create long-term patterns of delinquent behaviors, spanning outside the category of experimental adolescent initiation (Forbes & Dahl, 2009). Starting with the onset of adolescence to the beginning of adulthood, youth are at increased susceptibility to outside influence and negative perception of their social groups' behavior (Steinberg, 2005). To describe the social influence on delinquent behaviors, Kobus (2003) details a sense of internal influence to join the crowd and stake independence in one's own life through social acceptance. The individual makes the choice to partake in the behavior surrounding

This thesis follows the style of the *Journal of Drug Education*.

them and becomes more susceptible to other behavioral influences. The adolescent is especially susceptible to delinquent behaviors as there is a constant pool of sources in the school systems and their surrounding environment.

It is not common for researchers to distinguish between the adolescent social groups; i.e., the relationships that influence a teen occur beyond just their surrounding peers (people their age). Other influential social groups include specific types of youth social groups who share common interests (e.g., academic, athletic, or artistic), and with whom that an adolescent can identify with. However, there is a lack of research examining for the differences in youth perceptions distinguishing between peers and friends. The current study addresses this shortcoming by examining the perception of each group individually (peer and friend), then additionally comparing the perception of each group (peer vs. friend) to examine for differences, and for potential differences in levels of influence.

Tobacco Use, Illicit Drug Use, Alcohol Use, and Sexual Activity

Tobacco use has been shown to function as a “gateway drug” to illicit drug use, alcohol abuse, and sexual risk behaviors (Torabi, Bailey & Majd-Jabbari, 1993). As the use of tobacco is considered a social behavior, these delinquent behaviors have shown to be influenced by the current or past use of tobacco (Greene & Banerjee, 2009).

According to the Youth Risk Behavior Surveillance System (YRBSS) report (2009), 58.4% of students, nationwide, reported trying cigarettes and ~3450 students try cigarettes each day (Eaton et al., 2009). Tobacco use during adolescence is a predictor of continued adult smoking and has been shown to influence adoption of other

delinquent behaviors (Paavola, Vartiainen, & Puska, 1996). The YRBSS report (2009) also includes information on the other delinquent behaviors included in this study: Alcohol is more frequently consumed among high school students (9th through 12th grade) compared to middle school students (6th through 8th grade), 72.5% of students had tried alcohol in their lives. Among those who had ever tried alcohol (lifetime user) 41.8% reported currently consuming alcohol, and of those who reported current alcohol use 42.2% reported having obtained the alcohol from someone they knew.

Illicit drug use is a concern for the social implications, much like tobacco and alcohol. Of the students who completed the survey 22.7% reported that they received (offered, sold, or were given) illicit drugs through someone on school grounds. Lastly, 46% of students reported that they had ever participated in sexual intercourse, and initiation rates were higher among high school students than in the previous grades (Eaton et al., 2009). In summary, prevalence rates of delinquent behaviors in adolescents are cause for concern.

The Present Study

In this study, adolescents' perceptions of delinquent behaviors are examined with specific effort to differentiate between their perceptions of two important social groups: peers (people their age) and friends (people their age who are important to them). The findings will clarify the extent (if any) of the varying influences of peers and friends. We also seek to more closely examine for differences within those who currently engage in a delinquent behavior. For the current study, tobacco use (Smokers) is the sub-sample explored more closely.

METHODS

This study utilized data from the Adolescent Health Risk Behavior Survey (AHRBS) for secondary analysis. The specific measures utilized for the current study are described in the measures section.

Sample Population

All analyses of data from the AHRBS utilized Statistics Package for Social Sciences (SPSS) Version 16. The original sample (N=1,233) included students from 7th grade through 12th grade, and had a fairly even representation of sex (48.5% females; 51.5% males). The majority of participants were in public high school (high school-63.3%; public school-77.9%). Table 1 shows the distribution of students by grade.

Table 1. Distribution of Sample Population by Grade

School Grade	Percentage of population
7 th	17.4%
8 th	19.3%
9 th	14.2%
10 th	12.0%
11 th	14.4%
12 th	22.8%

Measures

The AHRB instrument was developed by Omori in 2001 through modification by McKyer in 2006 to incorporate adolescent risk perception has been recorded in other

publications (Smith, McKyer & Larsen, 2010; Diep, 2009; Fleary, Heffer, McKyer & Newman, 2009). The questionnaire psychometrics were evaluated in 2009 and found to be a conclusive tool to measure individual risk behaviors and perceptions (Smith, McKyer & Larsen, 2010).

Measures of internal consistency for the instrument as applied to the current sample yielded the following values: $r = .856$ (Peer scale), and $r = .880$ (Friend scale). Details of the scales are described below, and the full instrument is included as Appendix A.

Smoking Status

Smoking Status (Smokers, Non-Smokers) was operationalized by recoding participant responses to lifetime prevalence of smoking. Responses indicating “ever tried a cigarette” were coded as smokers. This measure would be overly crude to use among adults as a measure of smoking status, as lifetime prevalence would capture cigarette use from decades previously. However, for adolescents, there was significant overlap between lifetime prevalence and past year prevalence – a well-established measure of regular cigarette use (Johnston, O’Malley, Bachman & Schulenberg, 2009; Eaton et al., 2009; Torabi, Bailey & Majd-Jabbari, 1993). In the current sample, 27.9% met the lifetime prevalence criteria while only 20.8% met the past year tobacco use prevalence criteria. For the current study, we wished to be more inclusive and thereby utilized lifetime prevalence. While it may result in an overly sensitive measure of smoking status, it also will make it more difficult to find differences by smoking status – thereby increasing the rigor of the study.

Behavioral Constructs

Questions pertaining to individual lifetime smoking status, and perception of behavioral factors specific to peers and friends were included. Tables 2 and 3 detail the questions and scales utilized used to assess participants' perceptions of peer and friend behaviors, respectively.

Table 2. Perceptions of Peer Behaviors: (Peer Is Defined as "People Your Age")

AHRBS Question:	Scale:
Q46: "What percentage of <i>people your age</i> do you think are sexually active?"	0=0% 6=60% 1=10% 7=70%
Q47: "What percentage of <i>people your age</i> do you think smoke cigarettes?"	2=20% 8=80% 3=30% 9=90%
Q48: "What percentage of <i>people your age</i> do you think use illicit drugs?"	4=40% 10=100%
Q49: "What percentage of <i>people your age</i> do you think drink alcohol regularly?"	5=50%

Table 3. Perceptions of Friend Behaviors

AHRBS Question:	Scale:
Q50: "What percentage of <i>your friends</i> are sexually active?"	0=0% 6=60% 1=10% 7=70%
Q51: "What percentage of <i>your friends</i> smoke cigarettes?"	2=20% 8=80%
Q52: "What percentage of <i>your friends</i> use illicit drugs?"	3=30% 9=90%
Q53: "What percentage of <i>your friends</i> drink alcohol regularly?"	4=40% 10=100% 5=50%

Factor analyses were also performed on these new derived indexes in order to assess the cohesion of these scales. Results of the factor analyses are available in Appendix B. Internal consistency statistics (r -values) of the instrument as applied to this study were reported earlier in this paper.

Data Analysis

The sample population was analyzed based on lifetime smoking status (had ever tried cigarettes) with 27.9% reporting having ever smoked cigarettes. In addition to descriptive analyses (means, standard deviations, etc.) inferential statistical analyses were performed. First, an independent samples t -test was performed to examine for differences on Perceived Delinquency (i.e., perceptions of delinquent behaviors among peers and friends combined) by Smoking Status (Smokers versus Non-Smokers). Next, paired samples t -tests were performed to examine for differences in Perceived Delinquency by Social Influence (Peers vs. Friends) among Smokers.

The delinquent behaviors examined included sexual activity, cigarette smoking, illicit drug use, and alcohol use. For each t -tests, violation of the homogeneity of variance assumption was checked (Levene's test), and if significant (i.e., assumption violated), the adjusted t -values are reported. Additionally, Bonferonni corrections were applied to counteract the high number of t -tests, and thereby reducing the α -critical to a more stringent .0005.

RESULTS

Descriptive Analyses

Descriptive analyses yielding sample means and standard deviations were performed. The results are embedded in the tables along with the results of tests of significance.

Perceived Delinquency by Smoking Status

Youths' perceptions of delinquent behaviors differed by smoking status. Smokers' perceived delinquency ratings of their friends ($X=8.03$, $SD = 5.1$) and peers ($X=10.93$, $SD = 3.5$) were higher across all behaviors individually, and for overall perceived delinquency scores than Non-smokers ratings of friends ($X = 2.14$, $SD = 3.3$) and peers ($X = 7.98$, $SD = 4.1$). Table 4 and Table 5 detail the findings.

Table 4. Smokers and Non Smokers: Perception of Peer Delinquency

COMBINED SAMPLE: Peer Constructs									
	NON SMOKER			SMOKERS			t-value	DF	α
	N	Mean	SD	N	Mean	SD			
Grade (1=7th; 6=12th)	862	3.31	1.8	323	4.34	1.7	-9.001	1183	0.000
Sexually Active (PeerNorm46)	943	2.16	1.2	365	3.20	1.1	15.348	755.08	0.000
Smoke Cigarettes (PeerNorm47)	944	1.93	1.1	362	2.69	1.1	10.695	1304	0.000
Illicit Drugs (PeerNorm48)	937	1.61	1.1	359	2.02	1.2	-6.003	1294	0.000
Drink Alcohol (PeerNorm49)	944	2.28	1.4	364	3.06	1.2	-9.892	726.257	0.000
Perceptions of Peer Behavior Scale	923	7.98	4.1	353	10.93	3.5	12.844	737.65	0.000

Table 5. Smokers and Non Smokers: Perception of Friend Delinquency

COMBINED SAMPLE: Friend Constructs									
	NON SMOKER			SMOKERS			t-value	DF	α
	N	Mean	SD	N	Mean	SD			
Sexually Active (PeerNorm50)	944	0.75	1.2	367	2.66	1.6	20.372	518.978	0.000
Smoke Cigarettes (PeerNorm51)	950	0.38	0.8	362	1.88	1.5	20.372	430.796	0.000
Illicit Drugs (PeerNorm52)	946	0.26	0.7	362	1.09	1.5	10.326	424.11	0.000
Drink Alcohol (PeerNorm53)	943	0.74	1.2	365	2.38	1.7	17.13	513.527	0.000
Perceptions of Friend Behavior Scale	934	2.14	3.3	356	8.03	5.1	20.226	469.012	0.000

Perceptions of Friends vs. Peers Delinquent Behaviors Among Smokers

Those who engage in delinquent behaviors – i.e., Smokers – rated peers higher (more delinquent) ($X=10.93$, $SD=3.5$) than their friends ($X=7.93$, $SD=5.1$) across all delinquent behaviors. Full details of the comparisons are depicted in Table 6.

Table 6. Smokers Only: Perception of Higher Peers or Friends Delinquency

SMOKERS ONLY								
	N	PEERS		FRIENDS		t-value	DF	α
		Mean	SD	Mean	SD			
Pair 1: Sexually Active	365	3.20	1.1	2.65	1.6	7.753	364	0.000
Pair 2: Smoke Cigarettes	357	2.69	1.1	1.87	1.5	10.973	356	0.000
Pair 3: Illicit Drugs	355	2.03	1.2	1.08	1.5	13.038	354	0.000
Pair 4: Drink Alcohol	362	3.07	1.2	2.38	1.7	8.738	361	0.000
Pair 5: Perceptions of Behavior Scales	344	10.93	3.5	7.93	5.1	12.272	343	0.000

DISCUSSION

Perceived Delinquency by Smoking Status

The purpose of this study was to examine adolescents' perception of delinquent behaviors with specific effort to differentiate between their perceptions of two important social groups: peers and friends. The results distinguish between smokers and non-smokers and differences in youth perceptions on the extent to which their friends and their peers engage in four delinquent behaviors. As previously noted, tobacco has been categorized as a "gateway drug" (Torabi, Bailey & Majd-Jabbari, 1993), and its use is associated with an increased likelihood of engaging into other delinquent behaviors. In the current study, compared to non-smokers, smokers perceived peers and friends to be more delinquent in all measures. In other words, there is a difference in the perception of delinquent behaviors based on tobacco use status.

The link between individual perception and deviant behaviors combines with internal self-esteem and an association with outside negative social influences that contributes to an increased susceptibility towards delinquent behaviors (DuBois & Silverthorn, 2004). However, an ecological perspective examining the influence of other influential groups (e.g., community groups, peer mentors) suggest that parents and peer mentors function as protective factors to counteract delinquency of adolescents (Mayberry, Espelage & Koenig, 2009). There is a common element in research that focuses on behaviors that are socially influenced, and which contributes to continued use and exploration of these risk behaviors (DuBois & Silverthorn, 2004). The type of pressure and the trust in the social group are contributing factors for adolescents

choosing to participate in delinquent behavior (Greene & Banerjee, 2009), which is impacted through participation in any risk behavior. In the case of this study, adolescents who smoke perceive higher levels of delinquent behaviors in both friends and peers than their non-smoking counterparts.

Perceptions of Friends vs. Peers Delinquent Behaviors Among Smokers

As adolescent smoking continues to be a nationwide concern (Eaton et al., 2009), this study explores smokers' perception of social group delinquency between two otherwise unexplored distinctions: peers vs. friends. The social group that is perceived to be more delinquent can alter how individuals view their immediate friends in relation to their peers. The results showed that the smokers viewed their peers to be more delinquent than their friends. This unique distinction in the study leads to additional questions on which group is really more influential on the adolescent student.

Previous research on the influence of social groups failed to make the distinction between peers and friends, and in particular adolescents' *perceptions* of differences (if any) (DuBois & Silverthorn, 2004; Mayberry, Espelage & Koenig, 2009; Ali, Amialchuk & Dwyer, 2011). Limiting the conceptualization and operationalization of "peers" without making clearer distinctions within types of peer groups (e.g., close friends) hinders research in that fails to capture critical nuances and subsequently differential effects of these groups on adolescents. Therefore, the addition of clearer conceptualizations and operationalizations to distinguish between the dimensions of social influence would allow researchers to improve upon current knowledge. One study did make such distinction, and reported effects of close friends and peers on youth (Ali,

Amialchuk & Dwyer, 2011). Studies like this support the current study's approach to making the distinction between these social influences. Ali and colleagues (2011) did analyze the distinction between the two social groups based on the abuse of a delinquent behavior, in this case marijuana use, and produced similar results as the current study (2011).

For those students who are already participating in or experimenting with a risk behavior, there is an increased likelihood of experimenting with other risk behaviors. Yanovitzky (2005) classified this tendency towards experimentation as "sensation seeking" which correlates with an increased likelihood to associate with other deviant peers; he did not, however, classify the social groups of deviant peers as formal or informal relationships based on proximity to the individual (friends or peers). This adds another dimension to the current findings and suggests individual behavior use may increase the chance of adopting the same or additional deviant behaviors in the surrounding social groups. Prospective studies are needed to determine directionality of the effects. In other words, do delinquent-behavior engaging youth gravitate toward others who engage in these behaviors? Or does association with groups engaged in delinquent-behaviors lead to increased likelihood of participating in these behaviors? The critical question for this study is specific to perceptions and directionality: In which direction are the *perceptions* influenced? There is a need to clarify the sequence between behaviors and perceptions to help understand *when*, *why* and *how* adolescents perceive others as being more delinquent than themselves if the individual is already participating in a delinquent behavior.

CONCLUSION

The underlying question that was brought to the forefront during this study was how perception affected reality. How does perception influence individual choice to participate or continue risk behaviors? This study is unique in exploring two social groups that have the potential to influence individual behavior, and in the context of a critical delinquent behavior – cigarette smoking – because of its role as a gateway to other more risky behaviors (marijuana, alcohol and other illicit drug use). The study revealed that adolescent perceptions of the extent to which others engage in deviant behaviors vary by their own engagement in a deviant behavior.

Additionally, the results show critical distinctions between types of adolescent social groups (i.e., peers versus friends). In other words, while many have used the terms interchangeably, our results indicate they are not synonymous from the perspective of adolescents, as evidenced in the study findings. The delinquent behaviors of smoking cigarettes, illicit drug use, alcohol use, and sexual activity have been found to be perceived differently by youth, with higher rates associated with peers than friends. In other words, adolescents view that other people their age are more delinquent than their friends.

Implications for Health Education and Promotion Practice

Findings from the current study could influence improvements in school- based interventions via several means. First, adolescent social norms specific to delinquent behaviors could be targeting more accurately by being sensitive to differences between peers and friends. Finally, future prevention opportunities must present delinquent

behaviors with an understanding of how the interactions between the adolescent and their influencing environment could be affected (Mayberry, Espelage & Koenig, 2009).

Implications for Health Education and Promotion Research

The critical relationships that an adolescent develops during this stage of development have the potential to create lasting behaviors (Forbes & Dahl, 2009).

Health education research should add an additional focus on future efforts to distinguish between peer and friend influence on adolescent behavior. The implications for further research should look more closely and specifically at how different social subgroup types – peers versus friends - affect adolescents' perceptions of delinquency. This will require researchers to improve measures of adolescent social group types allowing a more thorough insight into the impact these relationships have on adolescent behavior.

REFERENCES

- Ali, M.M., Amialchuk, A. & Dwyer, D.S. (2011). The social contagion effect of marijuana use among adolescents. *PLoS ONE*, 6(1), e16183.
- Dahl, R.E. (2004). Adolescent brain development: A period of vulnerabilities and opportunities. Keynote address. *New York Academy of Sciences*, 1021, 1-22
- Diep, C.S. (2009). *Social norms among peers and social norms among friends and their influence on adolescents' sexual risk perceptions*. M.S. Thesis, Texas A&M University.
- DuBois, D.L. & Silverthorn, N. (2004). Do deviant peer associations mediate the contributions of self-esteem to problem behavior during early adolescence? A 2-year longitudinal study. *Journal of Clinical Child and Adolescent Psychology*, 33(2), 382-388.
- Eaton, D. K., Kann, L., Kinchen, S., Shanklin, S., Ross, J., Hawkins, J., et al. (2009). Youth risk behavior surveillance – United States, 2009. *Morbidity and Mortality Weekly Report*, 59(SS-5), 1–142. Retrieved August 8, 2011 from <http://www.cdc.gov/mmwr/pdf/ss/ss5905.pdf>.
- Fleary, S.A., Heffer, R.W., McKyer, E.L.J. & Newman, D. (2010). Using the bioecological model to predict risk perception of marijuana use and reported marijuana use in adolescence. *Addictive Behaviors*, 35(8), 795-798.
- Forbes, E.E. & Dahl R.E. (2009). Pubertal development and behavior: Hormonal activation of social and motivational tendencies. *Brain and Cognition*, 72, 66-72.

- Greene, K. & Banerjee, S.C. (2009). Examining unsupervised time with peers and the role of association with delinquent peers on adolescent smoking. *Nicotine & Tobacco Research, 11*(4), 371-380.
- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2009). *Monitoring the Future national results on adolescent drug use: Overview of key findings, 2008*. (NIH Publication No. 09-7401). Bethesda, MD: National Institute on Drug Abuse.
- Kobus, K. (2003). Peers and adolescent smoking. *Addiction, 98*(1), 37-55.
- Mayberry, M.L., Espelage, D.L. & Koenig, B. (2009). Multilevel modeling of direct effects and interactions of peers, parents, school, and community influences on adolescent substance use. *Journal of Youth and Adolescence, 38*, 1038-1049.
- Paavola, M., Vartiainen, E. & Puska, P. (1996). Predicting adult smoking: The influence of smoking during adolescence and smoking among friends and family. *Health Education Research: Theory and Practice, 11*(3), 309-315.
- Smith, M.L., McKyer, E.L.J. & Larsen, R.A.A. (2010). Factor structure and psychometrics of the Adolescent Health Risk Behavior Survey instrument. *American Journal of Health Behavior, 34*(3), 328-339.
- Steinberg, L. (2005). Cognitive and affective development in adolescence. *Trends in Cognitive Sciences, 9*(2), 69-74.
- Torabi, M.R., Bailey, W.J. & Majd-Jabbari, M. (1993). Cigarette smoking as a predictor of alcohol and other drug use by children and adolescents: Evidence of the "gateway drug effect". *Journal of School Health, 63*(7), 302-306.

Yanovitzky, I. (2005). Sensation seeking and adolescent drug use: The mediating role of association with deviant peers and pro-drug discussions. *Health Communication*, *17*(1), 67-89.

APPENDIX A

AHRBS INSTRUMENT

ADOLESCENT HEALTH RISK BEHAVIORS SURVEY

MARKING INSTRUCTIONS

- Use a No. 2 pencil only.
- Do not use ink, ballpoint, or felt tip pens.
- Make solid marks that fill the response completely.
- Erase cleanly any marks you wish to change.
- Make no stray marks on this form.

CORRECT: ●

INCORRECT: ☒ ☓ ☉ ☪

PRIVACY AND CONSENT STATEMENT

This survey is completely confidential. Complete the survey in private and place the completed survey in the manila envelope, as instructed by your teacher or supervisor. **DO NOT place your name or any identifying marks or information on the survey form or the envelope.**

There is no way for anyone to identify your individual responses. The envelope containing the completed surveys will not be opened by your teacher, but only by members of the survey processing team.

YOUR PARTICIPATION IS TOTALLY VOLUNTARY

Your participation in this survey is voluntary. If you do not wish to participate, you may:

- Return the entire survey form blank.
- Answer the survey questions randomly (in other words, fill in any bubbles) and then bubble in the response option "Not truthfully at all" to the last question.
- Inform the teacher or supervisor that you choose not to participate in the survey.

As accurate results are dependent upon getting as many students as possible to volunteer to complete the survey, we do value your participation. Therefore, your help is important to this effort.

However, **YOU WILL NOT BE PENALIZED IN ANY WAY FOR DECIDING NOT TO PARTICIPATE IN THE SURVEY.**

Thank you for your assistance.

PLEASE ENTER THE UNIQUE TEN-DIGIT SCHOOL CODE PROVIDED BY THE TEACHER OR SURVEY ADMINISTRATOR.

A	B	C	D	E	F	G	H	I	J
0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9	9

Step 1: Write in the number beneath each letter.

Step 2: Fill in the corresponding bubbles.

AGE IN YEARS	
0	0
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9

GENDER
0 Male
1 Female

GRADE	
0 6th	4 10th
1 7th	5 11th
2 8th	6 12th
3 9th	

ETHNIC ORIGIN How do you describe yourself? (Mark all that apply)
0 White or Caucasian
1 Black or African American
2 Hispanic or Latino
3 Native Hawaiian or Other Pacific Islander
4 American Indian or Alaskan Native
5 Other

1. Which family members live with you? Mark all that apply.

- | | |
|---|---|
| <input type="radio"/> Father | <input type="radio"/> Younger sibling (please specify the number _____) |
| <input type="radio"/> Mother | <input type="radio"/> Grandfather |
| <input type="radio"/> Stepfather | <input type="radio"/> Grandmother |
| <input type="radio"/> Stepmother | <input type="radio"/> Others (please specify the number _____) |
| <input type="radio"/> Older sibling (please specify the number _____) | |

2. Which of these comes closest to describing your parents' educational backgrounds? (Mark one for each parent)

<i>Mother</i>	<i>Father</i>	
0	0	Junior high school
1	1	Senior high school
2	2	Junior college / college work / college degree
3	3	Some graduate work / master's degree
4	4	Professional degree / doctoral degree (e.g., M.D., Ph.D.)

3. What are your parents' work status? (Mark one for each parent)

<i>Mother</i>	<i>Father</i>	
0	0	Working full-time
1	1	Working part-time
2	2	Not working

PLEASE DO NOT WRITE IN THIS AREA

How well do the following statements describe you? Rate each statement on the following scale by filling in bubble which best fits.

	Describes me very well	Describes me well	Describes me fairly well	Does not quite describe me	Does not describe me well	Does not describe me at all
1. I "lose my head" easily	0	1	2	3	4	5
2. At times I have crying and/or laughing fits that I seem unable to control	0	1	2	3	4	5
3. I can take criticism without resentment	0	1	2	3	4	5
4. Even under pressure I manage to remain calm	0	1	2	3	4	5
5. I keep an even temper most of the time	0	1	2	3	4	5
6. I fear something constantly	0	1	2	3	4	5
7. Usually I control myself	0	1	2	3	4	5
8. In the past year I have been very worried about my health	0	1	2	3	4	5
9. I am proud of my body	0	1	2	3	4	5
10. I seem to be forced to imitate people I like	0	1	2	3	4	5
11. Very often I think that I am not at all the person I would like to be	0	1	2	3	4	5
12. I frequently feel ugly and unattractive	0	1	2	3	4	5
13. When others look at me they must think that I am poorly developed	0	1	2	3	4	5
14. I feel strong and healthy	0	1	2	3	4	5
15. If I put my mind to it, I can learn almost anything	0	1	2	3	4	5
16. When I decide to do something, I do it.	0	1	2	3	4	5
17. I find life an endless series of problems without a solution in sight	0	1	2	3	4	5
18. I feel that I am able to make decisions	0	1	2	3	4	5
19. I feel that I have no talent whatsoever	0	1	2	3	4	5

20. How often do you compare how well things are going for you in general (socially, personally, etc.) with other people?

- 0 Never 1 Rarely 2 Usually 3 Often 4 Always

21. When you receive exam scores back, how likely is it that you would compare your current score with how well you did on *previous* exams?

- 0 Least likely
1 Less likely
2 Don't know
3 More likely
4 Most likely

22. When you receive exam scores back, how likely is it that you would compare your current score with how well others did on the same exam?

- 0 Least likely
1 Less likely
2 Don't know
3 More likely
4 Most likely

Please indicate how much each of the following words describes you

(For example, if you think you are a little more popular than most people your age, then you'd answer with a '5' on the scale*).

	Not at all like me	1	2	3	4	Exactly like me
23. Popular	0	1	2	3	4	
24. Smart	0	1	2	3	4	
25. Considerate	0	1	2	3	4	
26. Confused	0	1	2	3	4	
27. Immature	0	1	2	3	4	
28. "Cool" (sophisticated)	0	1	2	3	4	
29. Self-confident	0	1	2	3	4	
30. Unattractive	0	1	2	3	4	
31. Dull (boring)	0	1	2	3	4	
32. Independent	0	1	2	3	4	
33. Careless	0	1	2	3	4	
34. Self-centered	0	1	2	3	4	

Please indicate how well the following describes you by bubbling in "true" or "false."

35. More often than not I feel put down by the kids at school. 0 True 1 False
36. My parents do not like me very much. 0 True 1 False

PLEASE DO NOT WRITE IN THIS AREA

07315

○○○○○○○○○○○○○○○○○○○○○○○○○○○○○○

How do you think your close friends feel (or would feel) about you doing each of the following thing:

	Strongly Approve	Approve	Don't Know	Disapprove	Strongly Disapprove
37. Smoke one or more packs of cigarettes per day	0	1	2	3	4
38. Take four or more drinks of alcohol (beer, wine, liquor) daily.	0	1	2	3	4
39. Take one or two drinks of alcohol (beer, wine, liquor) occasionally	0	1	2	3	4
40. Use marijuana occasionally	0	1	2	3	4
41. Use marijuana daily	0	1	2	3	4
42. Use illicit drugs	0	1	2	3	4

How do you think your parents feel (or would feel) about you doing each of the following things:

	Strongly Approve	Approve	Don't Know	Disapprove	Strongly Disapprove
43. Smoke one or more packs of cigarettes per day	0	1	2	3	4
44. Use illicit drugs	0	1	2	3	4
45. Take one or two drinks of alcohol (beer, wine, liquor) occasionally	0	1	2	3	4

Please provide your own estimation of the following:

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
About people your age											
46. What percentage of people your age do you think are sexually active?	0	1	2	3	4	5	6	7	8	9	0
47. What percentage of people your age do you think smoke cigarettes?	0	1	2	3	4	5	6	7	8	9	0
48. What percentage of people your age do you think use illicit drugs?	0	1	2	3	4	5	6	7	8	9	0
49. What percentage of people your age do you think drink alcohol regularly?	0	1	2	3	4	5	6	7	8	9	0
About your friends											
50. What percentage of your friends are sexually active?	0	1	2	3	4	5	6	7	8	9	0
51. What percentage of your friends smoke cigarettes?	0	1	2	3	4	5	6	7	8	9	0
52. What percentage of your friends use illicit drugs?	0	1	2	3	4	5	6	7	8	9	0
53. What percentage of your friends drink alcohol regularly?	0	1	2	3	4	5	6	7	8	9	0

IF YOU did the following activities, to what extent do you believe that you would be personally at risk of getting hurt or sick?

	No Risk At All	1	2	3	4	5	6	Very Much At Risk
54. Drinking beer	0	1	2	3	4	5	6	
55. Drinking wine	0	1	2	3	4	5	6	
56. Drinking whiskey	0	1	2	3	4	5	6	
57. Drinking alcohol (beer, wine, whiskey, liquor) occasionally	0	1	2	3	4	5	6	
58. Drinking any alcohol (beer, wine, whiskey, liquor) at all	0	1	2	3	4	5	6	
59. Drinking five (males) / four (females) or more drinks in a row	0	1	2	3	4	5	6	
60. Smoking cigarettes	0	1	2	3	4	5	6	
61. Using marijuana occasionally	0	1	2	3	4	5	6	
62. Using any marijuana at all	0	1	2	3	4	5	6	
63. Taking methamphetamines	0	1	2	3	4	5	6	
64. Using inhalants (glue, fumes, amyls, thinner)	0	1	2	3	4	5	6	
65. Having unprotected sex	0	1	2	3	4	5	6	

07315

PLEASE DO NOT WRITE IN THIS AREA

If some other person your age engaged in the following activities, to what extent do you believe that he/she would be at risk of getting hurt or sick?

No Risk At All	1	2	3	4	5	Very Much At Risk
0	1	2	3	4	5	6

66. Drinking beer	0	1	2	3	4	5	6
67. Drinking wine	0	1	2	3	4	5	6
68. Drinking whiskey	0	1	2	3	4	5	6
69. Drinking five (males) / four (females) or more drinks in a row	0	1	2	3	4	5	6
70. Smoking cigarettes	0	1	2	3	4	5	6
71. Taking methamphetamines	0	1	2	3	4	5	6
72. Using inhalants (glue, fumes, amyls, thinner)	0	1	2	3	4	5	6
73. Having unprotected sex	0	1	2	3	4	5	6

To what extent are the benefits or pleasures provided by each of the following activities greater than the risks associated with it?

	Risks much greater than the benefits	Risks greater than the benefits	Risks slightly greater than the benefits	Undecided	Benefits slightly greater than the risks	Benefits greater than the risks	Benefits much greater than the risks
74. Drinking beer	0	1	2	3	4	5	6
75. Drinking wine	0	1	2	3	4	5	6
76. Drinking whiskey	0	1	2	3	4	5	6
77. Drinking 5 (males) / 4 (females) drinks or more in a row	0	1	2	3	4	5	6
78. Smoking cigarettes	0	1	2	3	4	5	6
79. Taking methamphetamines	0	1	2	3	4	5	6
80. Using inhalants (glue, fumes, amyls, thinner)	0	1	2	3	4	5	6
81. Having unprotected sex	0	1	2	3	4	5	6

Please answer the following questions by bubbling in the appropriate response.

82. Have you ever smoked cigarettes?
- 0 Never smoked
1 Once or twice
2 Occasionally, but not regularly
3 Regularly in the past
4 Regularly now
83. If you have ever smoked cigarettes, at what age did you first use them?
- 0 Never smoked
1 7 years old or less
2 8 - 9 years old
3 10 - 12 years old
4 13 - 15 years old
5 16 - 17 years old
6 18 or more years old
84. How often in the last year have you smoked cigarettes?
- 0 None
1 1 - 5 times
2 6 - 19 times
3 20 - 40 times
4 More than 40 times
85. Do either or both of your parents smoke?
- 0 Only father smokes
1 Only mother smokes
2 Both father and mother smoke
3 Neither father nor mother smoke
86. Do any one of your brothers or sisters smoke?
- 0 Yes (write in the number of siblings who smoke _____)
1 No
87. How many of your friends smoke?
- 0 None
1 One
2 Two
3 Three
4 More than 3
- If more than 3 friends smoke, indicate how many by writing the number in the box.
88. If you have ever used marijuana, at what age did you first use it?
- 0 Never used marijuana
1 7 years old or less
2 8-10 years old
3 10-12 years old
4 13-15 years old
5 16 - 17 years old
6 18 or more years old
89. If you have ever drunk alcohol, at what age did you first drink?
- 0 Never drank alcohol
1 7 years old or less
2 8-10 years old
3 10-12 years old
4 13-15 years old
5 16 - 17 years old
6 18 or more years old
90. Compared to others your age, would you say your health is...
- 0 Excellent
1 Good
2 Fair
3 Poor

PLEASE DO NOT WRITE IN THIS AREA

Please answer the following questions by bubbling in the appropriate response.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
91. Smoking is OK as long as you don't smoke too many.	0	1	2	3	4
92. A person who eats right and exercises regularly can smoke without harming his/her health.	0	1	2	3	4
93. If you are young and healthy, cigarette smoking is not dangerous.	0	1	2	3	4
94. The anti-smoking ads twist the facts to make cigarette smoking look worse for your health than it really is.	0	1	2	3	4
95. If I smoke cigarettes, I will live for a long time.	0	1	2	3	4
96. If I smoke cigarettes, I will live a healthy life.	0	1	2	3	4
97. If I smoke cigarettes, I will get lung cancer.	0	1	2	3	4
98. If I smoke cigarettes, I will get heart disease.	0	1	2	3	4
99. If I smoke cigarettes, I will cough.	0	1	2	3	4
100. If I smoke cigarettes, I will feel good.	0	1	2	3	4
101. If I smoke cigarettes, I will be able to relax.	0	1	2	3	4
102. If I smoke cigarettes, I will be able to get away from my problems.	0	1	2	3	4
103. If I smoke cigarettes, I will be less nervous in social situations.	0	1	2	3	4
104. If I smoke cigarettes, I will be able to concentrate better at work and/or school.	0	1	2	3	4
105. If I smoke cigarettes, I will be hooked.	0	1	2	3	4
106. If I smoke cigarettes, I will feel left out of the group.	0	1	2	3	4
107. If I smoke cigarettes, I will lose my friends.	0	1	2	3	4
108. The goal of achieving a healthy lifestyle is an important influence on my behavior.	0	1	2	3	4

109. If I smoke cigarettes, that is because it is . . .	0 Not applicable; I don't smoke	1 Very pleasant	2 Pleasant	3 Neither pleasant nor unpleasant	4 Unpleasant	5 Very unpleasant
110. If I smoke cigarettes, that is because it is . . .	0 Not applicable; I don't smoke	1 Very nice	2 Nice	3 Neither nice nor awful	4 Awful	5 Very awful
111. If I smoke cigarettes, that is because it is . . .	0 Not applicable; I don't smoke	1 A lot of fun	2 Fun	3 A little fun	4 Not fun	5 Not fun at all

Please mark the choice that shows how much you agree or disagree with each statement about your friends.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
112. Most of my friends think that getting good grades is important.	0	1	2	3	4
113. Most of my friends think school is a pain.	0	1	2	3	4
114. My friends often try to get me to do things the teacher doesn't like.	0	1	2	3	4

Please think of your best friend in this school. As far as you know, rate how much you agree with the following statements about him/her.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
115. Is interested in school.	0	1	2	3	4
116. Attends class regularly.	0	1	2	3	4
117. Plans to go to college.	0	1	2	3	4
118. Belongs to a gang.	0	1	2	3	4
119. Gets in trouble with the police.	0	1	2	3	4

120. How many of your friends have been picked up by the police? 121. How many times in the last two weeks have you had five or more alcoholic drinks (beer, wine, liquor) in a sitting?

0 None	1 One	2 Some	3 Most	4 All	0 None	3 3 to 5 times
					1 Once	4 6 to 9 times
					2 Twice	5 10 or more times

LIFETIME USE:

HAVE YOU EVER USED...?

	Never	1-5 Times	6-19 Times	20-49 Times	More than 49 Times
122. Snuff/Smokeless tobacco	0	1	2	3	4
123. Cigars (tobacco)	0	1	2	3	4
124. Pipe (tobacco)	0	1	2	3	4
125. Alcohol (beer, wine, wine coolers, liquor)	0	1	2	3	4
126. Marijuana (hashish or hash oil)	0	1	2	3	4
127. Cocaine	0	1	2	3	4
128. Crack	0	1	2	3	4
129. Inhalants (huffing glue, fumes, amyls)	0	1	2	3	4
130. Amphetamines (uppers)	0	1	2	3	4
131. Methamphetamines (meth, crank, crystal)	0	1	2	3	4
132. Ritalin (non-prescribed use only)	0	1	2	3	4
133. Methcathinone (cat)	0	1	2	3	4
134. Tranquilizers or Sleeping Pills (downers) (non-prescribed)	0	1	2	3	4
135. Narcotics (opium, morphine, codeine) (non-prescribed)	0	1	2	3	4
136. Heroin	0	1	2	3	4
137. LSD (acid)	0	1	2	3	4
138. MDMA (ecstasy, XTC, X)	0	1	2	3	4
139. Other Psychedelics (psilocybin, mescaline, etc.)	0	1	2	3	4
140. Rohypnol (Roofies)	0	1	2	3	4
141. GHB	0	1	2	3	4
142. Steroids (non-prescribed use)	0	1	2	3	4
143. A needle or syringe to inject a drug	0	1	2	3	4

144. If you have ever used inhalants (huffing glue, fumes, amyls), at what age did you first use them?

- 0 Never used inhalants 4 13 - 15 years old
 1 7 years old or less 5 16 - 17 years old
 2 8 - 9 years old 6 18 or more years old
 3 10 - 12 years old

ANNUAL USE

HOW MANY TIMES IN THE LAST YEAR HAVE YOU USED...?

	Never	1-5 Times	6-19 Times	20-49 Times	More than 49 Times
145. Snuff/Smokeless tobacco	0	1	2	3	4
146. Cigars (tobacco)	0	1	2	3	4
147. Pipe (tobacco)	0	1	2	3	4
148. Alcohol (beer, wine, wine coolers, liquor)	0	1	2	3	4
149. Marijuana (hashish or hash oil)	0	1	2	3	4
150. Cocaine	0	1	2	3	4
151. Crack	0	1	2	3	4
152. Inhalants (huffing glue, fumes, amyls)	0	1	2	3	4
153. Amphetamines (uppers)	0	1	2	3	4
154. Methamphetamines (meth, crank, crystal)	0	1	2	3	4
155. Ritalin (non-prescribed use only)	0	1	2	3	4
156. Methcathinone (cat)	0	1	2	3	4
157. Tranquilizers or Sleeping Pills (downers) (non-prescribed)	0	1	2	3	4
158. Narcotics (opium, morphine, codeine) (non-prescribed)	0	1	2	3	4
159. Heroin	0	1	2	3	4
160. LSD (acid)	0	1	2	3	4
161. MDMA (ecstasy, XTC, X)	0	1	2	3	4
162. Other Psychedelics (psilocybin, mescaline, etc.)	0	1	2	3	4
163. Rohypnol (Roofies)	0	1	2	3	4
164. GHB	0	1	2	3	4
165. Steroids (non-prescribed use)	0	1	2	3	4
166. A needle or syringe to inject a drug	0	1	2	3	4

USE IN PAST MONTH	Never	1-5 Times	6-10 Times	20-40 Times	More than 40 Times
167. Cigarettes	0	1	2	3	4
168. Snuff/Smokeless tobacco	0	1	2	3	4
169. Cigars (tobacco)	0	1	2	3	4
170. Pipe (tobacco)	0	1	2	3	4
171. Alcohol (beer, wine, wine coolers, liquor)	0	1	2	3	4
172. Marijuana (hashish or hash oil)	0	1	2	3	4
173. Cocaine	0	1	2	3	4
174. Crack	0	1	2	3	4
175. Inhalants (huffing glue, fumes, amyls)	0	1	2	3	4
176. Amphetamines (uppers)	0	1	2	3	4
177. Methamphetamines (meth, crank, crystal)	0	1	2	3	4
178. Ritalin (non-prescribed use only)	0	1	2	3	4
179. Methcathinone (cat)	0	1	2	3	4
180. Tranquilizers or Sleeping Pills (downers) (non-prescribed)	0	1	2	3	4
181. Narcotics (opium, morphine, codeine) (non-prescribed)	0	1	2	3	4
182. Heroin	0	1	2	3	4
183. LSD (acid)	0	1	2	3	4
184. MDMA (ecstasy, XTC, X)	0	1	2	3	4
185. Other Psychedelics (psilocybin, mescaline, etc.)	0	1	2	3	4
186. Rohypnol (Roofies)	0	1	2	3	4
187. GHB	0	1	2	3	4
188. Steroids (non-prescribed use)	0	1	2	3	4
189. A needle or syringe to inject a drug	0	1	2	3	4

190. HOW MUCH ARE YOU SATISFIED WITH YOUR LIFE?

④ Very Dissatisfied ① ② ③ ④ Very Satisfied

HOW TRUTHFULLY DID YOU ANSWER THESE QUESTIONS?

① Not truthfully at all ② Somewhat truthfully ③ Quite Truthfully

YOU HAVE COMPLETED THE SURVEY!
THANK YOU!

APPENDIX B

FACTOR ANALYSIS

Friend_Peer_Tobacco_03_30_2011.htm

12/11/11 2:38 PM

FACTOR /VARIABLES PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 /MISSING LISTWISE /ANALYSIS PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49
/PRINT INITIAL KMO ROTATION /FORMAT BLANK(.40) /PLOT ROTATION /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PAF
/CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION .

Factor Analysis

Notes	
Output Created	30-Mar-2011 12:52:26
Comments	
Input	Data G:\TAMU_PhDRESEARCH\Other\HRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav
Active Dataset	DataSet1
Filter	<none>
Weight	<none>
Split File	<none>
N of Rows in Working Data File	1438
Missing Value Handling	Definition of Missing MISSING=EXCLUDE: User-defined missing values are treated as missing.
Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax	FACTOR VARIABLES PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 /MISSING LISTWISE /ANALYSIS PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 /PRINT INITIAL KMO ROTATION /FORMAT BLANK(.40) /PLOT ROTATION /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PAF /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION .
Resources	Processor Time 00:00:00.062
Elapsed Time	00:00:00.083
Maximum Memory Required	3008 (2.99K) bytes

[DataSet1] G:\TAMU_PhDRESEARCH\Other\HRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav

Warnings	
Only one factor was extracted. Factor plots cannot be produced.	

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.810
Bartlett's Test of Sphericity	Approx. Chi-Square	2313.714
	df	6
	Sig.	.000

Communalities	
	Initial
PeerNorm46	.478
PeerNorm47	.653
PeerNorm48	.493
PeerNorm49	.510
Extraction Method: Principal Axis Factoring.	

Total Variance Explained			
Factor	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	2.809	75.223	75.223
2	.491	12.278	82.501
3	.180	4.505	92.006

file:///Volumes/TRAVELDRIVE/Final%20Thesis%20Documents/Friend_Peer_Tobacco_03_30_2011.webarchive

Page 1 of 18

Friend_Peer_Tobacco_03_30_2011.htm

12/11/11 2:38 PM

11	320	7.994	100.000
Extraction Method: Principal Axis Factoring.			

Factor Matrix^a
0.1 factors extracted. 6 iterations required.

Rotated Factor Matrix^a
0. Only one factor was extracted. The solution cannot be rotated.

RELIABILITY /VARIABLES=PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 /SCALE=(ALL VARIABLES) ALL/MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE /SUMMARY=TOTAL .

Reliability

Notes															
Output Created	30-Mar-2011 12:52:26														
Comments															
Input	<table border="1"> <tr> <td>Data</td> <td>G:\TAMU_PhDRESEARCH\Other\AHRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav</td> </tr> <tr> <td>Active Dataset</td> <td>DataSet1</td> </tr> <tr> <td>Filter</td> <td><none></td> </tr> <tr> <td>Weight</td> <td><none></td> </tr> <tr> <td>Split File</td> <td><none></td> </tr> <tr> <td>N of Rows in Working Data File</td> <td>1438</td> </tr> <tr> <td>Matrix Input</td> <td></td> </tr> </table>	Data	G:\TAMU_PhDRESEARCH\Other\AHRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav	Active Dataset	DataSet1	Filter	<none>	Weight	<none>	Split File	<none>	N of Rows in Working Data File	1438	Matrix Input	
Data	G:\TAMU_PhDRESEARCH\Other\AHRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav														
Active Dataset	DataSet1														
Filter	<none>														
Weight	<none>														
Split File	<none>														
N of Rows in Working Data File	1438														
Matrix Input															
Missing Value Handling	<table border="1"> <tr> <td>Definition of Missing</td> <td>User-defined missing values are treated as missing.</td> </tr> <tr> <td>Cases Used</td> <td>Statistics are based on all cases with valid data for all variables in the procedure.</td> </tr> </table>	Definition of Missing	User-defined missing values are treated as missing.	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.										
Definition of Missing	User-defined missing values are treated as missing.														
Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.														
Syntax	RELIABILITY /VARIABLES=PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 /SCALE=(ALL VARIABLES) ALL/MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE /SUMMARY=TOTAL .														
Resources	<table border="1"> <tr> <td>Processor Time</td> <td>00:00:00.018</td> </tr> <tr> <td>Elapsed Time</td> <td>00:00:00.018</td> </tr> </table>	Processor Time	00:00:00.018	Elapsed Time	00:00:00.018										
Processor Time	00:00:00.018														
Elapsed Time	00:00:00.018														

[DataSet1] G:\TAMU_PhDRESEARCH\Other\AHRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav

Scale: ALL VARIABLES

Case Processing Summary

file:///Volumes/TRAVELDRIVE/Final%20Thesis%20Documents/Friend_Peer_Tobacco_03_30_2011.webarchive

Page 2 of 18

Friend_Peer_Tobacco_03_30_2011.htm

12/11/11 2:38 PM

		N	%
Cases	Valid	1299	90.3
	Excluded	140	9.7
	Total	1439	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
.856	4

Item Statistics			
	Mean	Std. Deviation	N
PeerNorm46	2.44	1.299	1299
PeerNorm47	2.14	1.190	1299
PeerNorm48	1.72	1.124	1299
PeerNorm49	2.49	1.374	1299

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PeerNorm46	6.36	10.154	.681	.825
PeerNorm47	6.65	10.234	.735	.803
PeerNorm48	7.07	10.914	.683	.826
PeerNorm49	6.30	9.364	.713	.814

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
6.80	17.248	4.153	4

```

FACTOR /VARIABLES PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 /MISSING LISTWISE /ANALYSIS PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53
/PRINT INITIAL KMO ROTATION /FORMAT BLANK(.40) /PLOT ROTATION /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PAF
/CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION .

```

Factor Analysis

Notes		
Output Created	30-Mar-2011 12:52:40	
Comments		
Input	Data	G:\TAMU\PRORESEARCH\Other\HRBS Manuscripts\All_AHRB_Thesis_09_23_2010.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	1439
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax	FACTOR /VARIABLES PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 /MISSING LISTWISE /ANALYSIS PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 /PRINT INITIAL KMO ROTATION /FORMAT BLANK(.40) /PLOT ROTATION /CRITERIA MINEIGEN(1) ITERATE(25) /EXTRACTION PAF /CRITERIA ITERATE(25) /ROTATION VARIMAX /METHOD=CORRELATION .	
Resources	Processor Time	00:00:00.015
	Elapsed Time	00:00:00.034

file:///Volumes/TRAVELDRIVE/Final%20Thesis%20Documents/Friend_Peer_Tobacco_03_30_2011.webarchive

Page 3 of 18

Friend_Peer_Tobacco_03_30_2011.htm

12/11/11 2:38 PM

Maximum Memory Required	3008 (2.98K) bytes
-------------------------	--------------------

[DataSet1] G:\TAMU_PhDRESEARCH\Other\AHRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav

Warnings	
Only one factor was extracted. Factor plots cannot be produced.	

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		
		.828
Bartlett's Test of Sphericity		
Approx. Chi-Square		2979.479
df		6
Sig.		.000

Communalities	
	Initial
PeerNorm50	.582
PeerNorm51	.645
PeerNorm52	.694
PeerNorm53	.619
Extraction Method: Principal Axis Factoring.	

Total Variance Explained			
Factor	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	2.997	74.929	74.929
2	.452	11.305	86.234
3	.283	7.079	93.313
4	.267	6.667	100.000
Extraction Method: Principal Axis Factoring.			

Factor Matrix ^a
a. 1 Factors extracted. 6 Iterations required.

Rotated Factor Matrix ^a
a. Only one factor was extracted. The solution cannot be rotated.

RELIABILITY /VARIABLES=PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 /SCALE(ALL VARIABLES) ALL/MODEL=ALPHA /STATISTICS=DESCRIPTIVE SCALE /SUMMARY=TOTAL .

Reliability

Notes	
Output Created	30-Mar-2011 12:52:40
Comments	
Input Data	G:\TAMU_PhDRESEARCH\Other\AHRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav

file:///Volumes/TRAVELDRIVE/Final%20Thesis%20Documents/Friend_Peer_Tobacco_03_30_2011.webarchive

Page 4 of 18

Friend_Peer_Tobacco_03_30_2011.htm

12/11/11 2:38 PM

Active Dataset	DataSet1
Dataset File	<none>
Weight	<none>
Split File	<none>
N of Rows in Working Data File	1430
Matrix Input	
Missing Value Handling	Definition of Missing Cases Used
	User-defined missing values are treated as missing.
	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax	RELIABILITY VARIABLES=PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 (SCALE(ALL VARIABLES) ALLMODEL=ALPHA (STATISTICS=DESCRIPTIVE SCALE (SUMMARY=TOTAL.
Resources	Processor Time 00:00:00.000
	Elapsed Time 00:00:00.016

[DataSet1] G:\TAMU_PhD\RESEARCH\Other\AHRBS_Manuscript\Ail_AHRB_Thetas_09_23_2010.sav

Scale: ALL VARIABLES

Case Processing Summary			
		N	%
Cases	Valid	1312	91.2
	Excluded	127	8.8
	Total	1430	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics	
Cronbach's Alpha	N of Items
.880	4

Item Statistics			
	Mean	Std. Deviation	N
PeerNorm50	1.29	1.584	1312
PeerNorm51	.80	1.230	1312
PeerNorm52	.50	1.052	1312
PeerNorm53	1.20	1.530	1312

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
PeerNorm50	2.50	11.442	.752	.848
PeerNorm51	2.99	13.271	.801	.827
PeerNorm52	3.29	15.281	.694	.874
PeerNorm53	2.99	11.512	.788	.830

Scale Statistics			
Mean	Variance	Std. Deviation	N of Items
3.79	22.012	4.699	4

FREQUENCIES VARIABLES=Female Grades SchLevel SchType ParentSmoke NumFrSmoke EverCig YearCig
PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 PeerBehavior PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 FriendBehavior
/STATISTICS=STDDEV RANGE MINIMUM MAXIMUM MEAN /ORDER= ANALYSIS .

APPENDIX C

T-TEST ANALYSES

Friend_Peer_Tobacco_03_30_2011.htm

12/2/11 5:34 PM

Number of friends who smoke (0=none, 1=1, 2=2, 3=3, 4=4+) * Ever smoked cigarett

Crosstab					
			Ever smoked cigarettes (0=Never, 1=Yes)		Total
			.00	1.00	
Number of friends who smoke (0=none, 1=1, 2=2, 3=3, 4=4+)	0.00	Count	200	18	218
		% within Number of friends who smoke (0=none, 1=1, 2=2, 3=3, 4=4+)	91.7%	8.3%	100.0%
	1.00	Count	34	24	58
		% within Number of friends who smoke (0=none, 1=1, 2=2, 3=3, 4=4+)	58.6%	41.4%	100.0%
	2.00	Count	36	14	50
		% within Number of friends who smoke (0=none, 1=1, 2=2, 3=3, 4=4+)	72.0%	28.0%	100.0%
	3.00	Count	15	16	31
		% within Number of friends who smoke (0=none, 1=1, 2=2, 3=3, 4=4+)	48.4%	51.6%	100.0%
	4.00	Count	89	100	139
		% within Number of friends who smoke (0=none, 1=1, 2=2, 3=3, 4=4+)	28.1%	71.9%	100.0%
	Total	Count	324	172	496
		% within Number of friends who smoke (0=none, 1=1, 2=2, 3=3, 4=4+)	65.3%	34.7%	100.0%
		% within Ever smoked cigarettes (0=Never, 1=Yes)	100.0%	100.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	158.4514	4	.000
Likelihood Ratio	170.102	4	.000
Linear-by-Linear Association	147.467	1	.000
N of Valid Cases	496		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 10.75.

T-TEST GROUPS=EverCig (0 1) /MISSING=ANALYSIS /VARIABLES= Grades PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 PeerBehavior PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 FriendBehavior /CRITERIA=CI(.95).

T-Test

Notes		
Output Created		30-Mar-2011 12:52:50
Comments		
Input	Date	D:\TAMU_PHD\RESEARCH\Other\HRBS_Manuscript\AI_AHRB_Thesis_09_23_2010.sav
	Active Dataset	Data\$set1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working	1439

Missing Value Handling	Data File Definition of Missing Cases Used	User defined missing values are treated as missing. Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis.
Syntax		T-TEST GROUPS=EverCig (0 1) MISSING=ANALYSIS VARIABLES= Grades PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 PeerBehavior PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 FriendBehavior CRITERIA=CI(.95).
Resources	Processor Time	00:00:00.016
	Elapsed Time	00:00:00.026

[DataSet1] G:\TAMU_PhDRESEARCH\Other\AHRBS_Manuscripts\AIL_AHRB_Thetas_09_23_2010.sav

Group Statistics					
	Ever smoked cigarettes (0=Never, 1=Yes)	N	Mean	Std. Deviation	Std. Error Mean
Grade (1=7th; 6=12th)	0.00	862	3.3106	1.77303	.06209
	1.00	323	4.3437	1.72023	.09372
PeerNorm46	0.00	943	2.16	1.218	.040
	1.00	365	3.20	1.060	.055
PeerNorm47	0.00	944	1.93	1.148	.037
	1.00	362	2.69	1.119	.059
PeerNorm48	0.00	937	1.61	1.083	.035
	1.00	359	2.02	1.191	.063
PeerNorm49	0.00	944	2.28	1.365	.044
	1.00	364	3.06	1.231	.065
Perceptions of Peer Behavior Scale	0.00	923	7.9793	4.09219	.13469
	1.00	353	10.9348	3.50710	.18669
PeerNorm50	0.00	944	.75	1.177	.038
	1.00	367	2.66	1.641	.089
PeerNorm51	0.00	950	.38	.734	.024
	1.00	362	1.88	1.516	.080
PeerNorm52	0.00	946	.26	.694	.023
	1.00	362	1.09	1.468	.077
PeerNorm53	0.00	943	.74	1.187	.039
	1.00	365	2.38	1.696	.087
Perceptions of Friend Behavior Scale	0.00	934	2.1403	3.25425	.10548
	1.00	356	6.0253	5.10917	.27079

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Grade (1=7th; 6=12th)	Equal variances assumed	1.125	.289	-9.001	1183	.000	-1.03275	.11474	-1.25787	-.80763
	Equal variances not assumed			-9.126	994.169	.000	-1.03275	.11317	-1.25502	-.81048
PeerNorm46	Equal variances assumed	21.808	.000	14.437	1306	.000	-1.047	.073	-1.189	-.905
	Equal variances not assumed			15.348		.000	-1.047	.068	-1.181	-.913
PeerNorm47	Equal variances assumed	.794	.385	10.626	1304	.000	-.794	.070	-.892	-.615
	Equal variances not assumed			10.818		.000	-.794	.070	-.890	-.617
PeerNorm48	Equal variances assumed	.290	.591	-6.003	1234	.000	-.415	.069	-.551	-.279
	Equal variances not assumed			-6.734	997.731	.000	-.415	.072	-.557	-.273
PeerNorm49	Equal variances assumed	18.640	.000	-9.449	1306	.000	-.775	.062	-.938	-.614
	Equal variances not assumed			-9.892	726.257	.000	-.775	.076	-.929	-.621
Perceptions of Peer Behavior Scale	Equal variances assumed	19.801	.000	11.993	1274	.000	-3.95651	.24652	-3.44014	-2.47289
	Equal variances not assumed			12.844		.000	-3.95651	.23019	-3.40841	-2.50461
PeerNorm50	Equal variances assumed	138.022	.000	23.488	1306	.000	-1.912	.081	-2.072	-1.752
	Equal variances not assumed			20.372		.000	-1.912	.094	-2.097	-1.728

PeerNorm51	Equal variances assumed	378.573	.000	1910	.000	-1.502	.063	-1.626	-1.379
	Equal variances not assumed			23.788	430.796	.000	-1.502	.063	-1.666
PeerNorm52	Equal variances assumed	223.001	.000	1306	.000	-.830	.060	-.948	-.712
	Equal variances not assumed			13.828	424.110	.000	-.830	.060	-.988
PeerNorm53	Equal variances assumed	154.386	.000	1306	.000	-1.634	.062	-1.756	-1.472
	Equal variances not assumed			19.810	513.527	.000	-1.634	.095	-1.821
Perceptions of Friend Behavior Scale	Equal variances assumed	138.716	.000	1288	.000	-5.88502	.24016	-6.35616	-5.41389
	Equal variances not assumed			24.505	469.012	.000	-5.88502	.29097	-6.46679

*****ONLY SMOKERS***** USE ALL. COMPUTE filter_5=(EverCig = 1). VARIABLE LABEL filter_5 'EverCig = 1 (FILTER)'.
 VALUE LABELS filter_5 0 'Not Selected' 1 'Selected'. FORMAT filter_5 (1,0). FILTER BY filter_5. EXECUTE. T-
 TEST PAIRS=PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 PeerBehavior WITH PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 FriendBehavior (PAIRED)
 /CRITERIA=CI(.9500) /MISSING=ANALYSIS.

T-Test

Notes		
Output Created	30-Mar-2011 12:53:05	
Comments		
Input	Data	G:\TAMU_PhDRESEARCH\Other\HRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav
	Active Dataset	DataSet1
	Filter	EverCig = 1 (FILTER)
	Weight	<none>
	Split File	<none>
Missing Value Handling	Definition of Missing	User defined missing values are treated as missing.
	Cases Used	Statistics for each analysis are based on the cases with no missing or out-of-range data for any variable in the analysis.
Syntax	T-TEST PAIRS=PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 PeerBehavior WITH PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 FriendBehavior (PAIRED) /CRITERIA=CI(.9500) /MISSING=ANALYSIS.	
Resources	Processor Time	00:00:00.000
	Elapsed Time	00:00:00.022

[DataSet1] G:\TAMU_PhDRESEARCH\Other\HRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PeerNorm46	3.20	365	1.060	.055
	PeerNorm50	2.65	365	1.640	.086
Pair 2	PeerNorm47	2.69	357	1.120	.059
	PeerNorm51	1.87	357	1.506	.080
Pair 3	PeerNorm48	2.03	355	1.193	.063
	PeerNorm52	1.08	355	1.451	.077
Pair 4	PeerNorm49	3.07	362	1.224	.064
	PeerNorm53	2.38	362	1.664	.087
Pair 5	Perceptions of Peer Behavior Scale	10.8902	344	3.51603	.58957
	Perceptions of Friend Behavior Scale	7.8031	344	5.07981	.77983

Paired Samples Correlations			
Pair	N	Correlation	Sig.
PeerNorm46 & PeerNorm50	365	.567	.000

Friend_Peer_Tobacco_03_30_2011.htm

12/2/11 5:34 PM

Pair 1	PeerNorm47 & PeerNorm51	367	.448	.000
Pair 2	PeerNorm48 & PeerNorm52	366	.472	.000
Pair 3	PeerNorm49 & PeerNorm53	362	.497	.000
Pair 4	Perceptions of Peer Behavior Scale & Perceptions of Friend Behavior Scale	344	.494	.000

		Paired Samples Test							
		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	PeerNorm46 - PeerNorm50	.561	1.357	.071	.411	.690	7.763	364	.000
Pair 2	PeerNorm47 - PeerNorm51	.824	1.418	.076	.676	.971	10.973	366	.000
Pair 3	PeerNorm48 - PeerNorm52	.952	1.376	.073	.808	1.096	13.038	364	.000
Pair 4	PeerNorm49 - PeerNorm53	.689	1.498	.079	.533	.843	8.738	361	.000
Pair 5	Perceptions of Peer Behavior Scale - Perceptions of Friend Behavior Scale	2.99709	4.52946	.24421	2.51675	3.47744	12.272	343	.000

APPENDIX D

DESCRIPTIVE STATISTICS

Friend_Peer_Tobacco_03_30_2011.htm

12/2/11 5:34 PM

Frequencies

Notes	
Output Created	30-Mar-2011 12:52:50
Comments	
Input	G:\TAMU_PhDRESEARCH\Other\HRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav
Active Dataset	DataSet1
Filter	<none>
Weight	<none>
Split File	<none>
N of Rows in Working Data File	1439
Missing Value Handling	User-defined missing values are treated as missing.
Cases Used	Statistics are based on all cases with valid data.
Syntax	FREQUENCIES VARIABLES=Female Grades SchLevel SchType ParentSmoke NumFrSmoke EverCig YearCig PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 PeerBehavior PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 FriendBehavior /STATISTICS=STDDEV RANGE MINIMUM MAXIMUM MEAN /ORDER= ANALYSIS .
Resources	
Processor Time	00:00:00.032
Elapsed Time	00:00:00.031

[DataSet1] G:\TAMU_PhDRESEARCH\Other\HRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav

		Statistics									
	Sex (0=Male; 1=Female)	Grade (1=7th; 6=12th)	School Level	School Type	Parent smoking status (0=not smoke, 1=father only, 2=mother only, 3=both)	Number of friends who smoke (0=none, 1=1, 2=2, 3=3, 4=4+)	Ever smoked cigarettes (0=Never, 1=Yes)	Past Year smoked cigarettes (0=Never; 1=Yes)	PeerNorm46	Peer	
N	Valid	1233	1233	1222	1439	998	497	1332	1324	1332	
	Missing	206	219	217	9	441	942	107	115	107	
Mean		.5190	3.5516	.83	.78	.5822	1.6298	.2785	.2085	2.45	
Std. Deviation		.49998	1.82583	.482	.415	1.00488	1.70972	.44844	.40536	1.271	
Range		1.00	5.00	1	1	3.00	4.00	1.00	1.00	5	
Minimum		.00	1.00	0	0	.00	.00	.00	.00	0	
Maximum		1.00	6.00	1	1	3.00	4.00	1.00	1.00	5	

Frequency Table

Sex (0=Male; 1=Female)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	00	598	48.8	48.5	
	1.00	635	44.1	51.5	100.0
	Total	1233	85.7	100.0	
Missing	System	206	14.3		
Total		1439	100.0		

Grade (1=7th; 6=12th)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	212	14.7	17.4	17.4
	2.00	235	16.3	19.3	36.8
	3.00	173	12.0	14.2	50.8
	4.00	146	10.1	12.0	62.8
	5.00	176	12.2	14.4	77.2
	6.00	279	19.3	22.8	100.0

	Total	1220	84.8	100.0
Missing	System	219	15.2	
	Total	1439	100.0	

School Level					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Middle School	448	31.1	36.7	36.7
	High School	774	53.8	63.3	100.0
	Total	1222	84.9	100.0	
Missing	System	217	15.1		
	Total	1439	100.0		

School Type					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Private School	316	22.0	22.1	22.1
	Public School	1114	77.4	77.9	100.0
	Total	1430	99.4	100.0	
Missing	System	9	.6		
	Total	1439	100.0		

Parent smoking status (0=not smoke, 1=father only, 2=mother only, 3=both)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	00	701	48.7	70.2	70.2
	1.00	111	7.7	11.1	81.4
	2.00	88	6.1	8.8	90.2
	3.00	98	6.6	9.8	100.0
	Total	998	69.4	100.0	
	Missing	System	441	30.6	
	Total	1439	100.0		

Number of friends who smoke (0=none, 1=1, 2=2, 3=3, 4=4+)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	00	219	15.1	43.9	43.9
	1.00	59	4.0	11.7	55.5
	2.00	50	3.5	10.1	65.6
	3.00	32	2.2	6.4	72.0
	4.00	139	9.7	28.0	100.0
	Total	497	34.5	100.0	
Missing	System	942	65.5		
	Total	1439	100.0		

Ever smoked cigarettes (0=Never, 1=Yes)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	00	961	66.8	72.1	72.1
	1.00	371	25.8	27.9	100.0
	Total	1332	92.6	100.0	
Missing	System	107	7.4		
	Total	1439	100.0		

Past Year smoked cigarettes (0=Never, 1=Yes)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	00	1048	72.8	79.2	79.2
	1.00	276	19.2	20.6	100.0
	Total	1324	92.0	100.0	
Missing	System	115	8.0		
	Total	1439	100.0		

PeerNorm46					
		Frequency	Percent	Valid Percent	Cumulative Percent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20%	310	21.5	25.5	25.5
	40%	274	19.0	20.6	46.1
	60%	375	26.1	28.2	74.3
	80%	259	18.0	19.4	93.7
	100%	48	3.3	3.6	100.0
	Total	1332	92.6	100.0	
Missing	System	107	7.4		
Total		1439	100.0		

PeerNorm47					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	84	5.8	6.3	6.3
	20%	349	24.3	26.2	32.5
	40%	414	28.8	31.1	63.6
	60%	291	20.2	21.9	85.5
	80%	162	11.3	12.2	97.7
	100%	31	2.2	2.3	100.0
	Total	1331	92.5	100.0	
Missing	System	108	7.5		
Total		1439	100.0		

PeerNorm48					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	125	8.7	9.5	9.5
	20%	536	37.2	40.6	50.1
	40%	374	26.0	28.9	79.4
	60%	173	12.0	13.1	92.5
	80%	87	6.0	6.6	99.1
	100%	25	1.7	1.8	100.0
	Total	1320	91.7	100.0	
Missing	System	119	8.3		
Total		1439	100.0		

PeerNorm49					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	108	7.5	8.1	8.1
	20%	295	18.4	19.9	28.0
	40%	271	18.8	20.3	48.3
	60%	301	20.9	22.6	70.9
	80%	330	22.9	24.8	95.6
	100%	58	4.0	4.4	100.0
	Total	1333	92.6	100.0	
Missing	System	106	7.4		
Total		1439	100.0		

Perceptions of Peer Behavior Scale					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	35	2.4	2.7	2.7
	1.50	17	1.2	1.3	4.0
	2.00	32	2.2	2.6	6.6
	3.00	36	2.5	2.8	9.2
	4.00	113	7.9	8.3	17.9
	5.00	77	5.4	5.9	23.9
	6.00	90	6.3	6.9	30.8
	7.00	96	6.7	7.4	38.2
	8.00	114	7.9	8.8	47.0
	9.00	95	6.6	7.3	54.3
	10.00	125	8.7	9.6	63.9
	11.00	116	8.1	8.9	72.8
	12.00	112	7.8	8.6	81.4
	13.00	70	4.9	5.4	86.8
	14.00	60	4.2	4.6	91.5
	15.00	54	3.8	4.2	95.6
Total		1333	92.6	100.0	
Missing	System	106	7.4		
Total		1439	100.0		

16.00	26	1.8	2.0	97.6
17.00	10	.7	.8	98.4
18.00	5	.3	.4	98.8
19.00	6	.4	.5	99.2
20.00	10	.7	.8	100.0
Total	1299	90.3	100.0	
Missing System	140	9.7		
Total	1439	100.0		

PeerNorm50					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	610	42.4	45.7	45.7
	20%	302	21.0	22.6	68.4
	40%	113	7.9	8.5	76.8
	60%	120	8.3	9.0	85.8
	80%	112	7.8	8.4	94.2
	100%	77	5.4	5.8	100.0
	Total	1334	92.7	100.0	
Missing System	105	7.3			
Total	1439	100.0			

PeerNorm51					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	772	53.6	57.8	57.8
	20%	319	22.2	23.9	81.7
	40%	95	6.6	7.1	88.8
	60%	67	4.7	5.0	93.9
	80%	52	3.6	3.9	97.8
	100%	30	2.1	2.2	100.0
	Total	1335	92.8	100.0	
Missing System	104	7.2			
Total	1439	100.0			

PeerNorm52					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	961	66.8	72.3	72.3
	20%	239	16.6	18.0	90.2
	40%	41	2.8	3.1	93.3
	60%	39	2.7	2.9	96.2
	80%	22	1.5	1.7	97.9
	100%	29	1.9	2.1	100.0
	Total	1330	92.4	100.0	
Missing System	109	7.6			
Total	1439	100.0			

PeerNorm53					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0%	662	45.3	49.0	49.0
	20%	268	18.6	20.1	69.1
	40%	130	9.0	9.8	78.9
	60%	101	7.0	7.6	86.5
	80%	129	9.0	9.7	96.2
	100%	51	3.5	3.8	100.0
	Total	1331	92.5	100.0	
Missing System	108	7.5			
Total	1439	100.0			

Perceptions of Friend Behavior Scale					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	00	491	34.1	37.4	37.4
	1.00	124	8.6	9.6	46.9
	2.00	89	6.2	6.8	53.7

3.00	98	6.8	7.0	61.1
4.00	97	6.7	7.4	68.5
5.00	47	3.3	3.6	72.1
6.00	61	3.5	3.9	76.0
7.00	44	3.1	3.4	79.3
8.00	46	3.2	3.5	82.9
9.00	52	3.6	4.0	86.8
10.00	37	2.6	2.8	89.6
11.00	30	2.1	2.3	91.9
12.00	21	1.5	1.6	93.5
13.00	19	1.3	1.4	94.9
14.00	16	1.1	1.2	96.1
15.00	10	.7	.8	96.9
16.00	12	.8	.9	97.8
17.00	7	.5	.5	98.3
18.00	2	.1	.2	98.5
19.00	1	.1	.1	98.6
20.00	19	1.3	1.4	100.0
Total	1312	91.2	100.0	
Missing System	127	8.8		
Total	1439	100.0		

NONPAR CORR /VARIABLES=EverCig Female Grades SchLevel SchType ParentSmoke NumFrSmoke PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 PeerBehavior PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 FriendBehavior /PRINT=SPEARMAN TWOTAIL NOSIG /MISSING=PAIRWISE.

Nonparametric Correlations

Notes	
Output Created	30-Mar-2011 12:52:50
Comments	
Input	G:\TAMU_PhD\RESEARCH\Other\AHRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav
Active Dataset	DataSet1
Filter	<none>
Weight	<none>
Split File	<none>
N of Rows in Working Data File	1439
Missing Value Handling	Definition of Missing: User-defined missing values are treated as missing. Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax	NONPAR CORR /VARIABLES=EverCig Female Grades SchLevel SchType ParentSmoke NumFrSmoke PeerNorm46 PeerNorm47 PeerNorm48 PeerNorm49 PeerBehavior PeerNorm50 PeerNorm51 PeerNorm52 PeerNorm53 FriendBehavior /PRINT=SPEARMAN TWOTAIL NOSIG /MISSING=PAIRWISE.
Resources	Processor Time 00:00:00.047 Elapsed Time 00:00:00.042 Number of Cases Allowed 30321 cases
n. Based on availability of workspace memory	

[DataSet1] G:\TAMU_PhD\RESEARCH\Other\AHRBS_Manuscripts\All_AHRB_Thetas_09_23_2010.sav

Correlations								
		Ever smoked cigarettes (0=Never, 1=Yes)	Sex (0=Male, 1=Female)	Grade (1=7th, 6=12th)	School Level	School Type	Parent smoking status (0=not smoke, 1=father only, 2=mother only, 3=both)	Number of friends w (0=none, 1=1, 2=2, 3=3)
Spearman's rho	Ever smoked cigarettes (0=Never, 1=Yes)	Correlation Coefficient	1.000	-.045	.252*	.185**	.163**	.170*

VITA

Name: Cortney Nichole Thomsen

Address: Texas A&M University
 Department of Health & Kinesiology
 158 Read Building
 TAMU 4243
 College Station, TX 77843-4243

Email Address: cortneythomsen@gmail.com

Education: B.S., Health- Community Health, Texas A&M University, 2010
 M.S., Health Education, Texas A&M University, 2012

Teaching Experience: Graduate Assistant, Office of Health Informatics, Texas A&M University. Fall 2010-Fall 2011
Women's Health (HLTH 334, upper-level undergraduate course)

Research Experience: Graduate Research Assistant, Institute for Obesity Research and Program Evaluation, Texas A&M University. May 2010-August 2010

Lead Undergraduate Research Assistant and Intern, Child & Adolescent Health Research Lab, Texas A&M University. May 2009-January 2010

Peer Reviewed Publications: Diep, C. S., Kaster, E., Rosen, B., **Thomsen, C.**, & Smith, M. L. (2011). Implementation and evaluation of a 2-1-1 Texas awareness campaign. *Texas Public Health Journal*, 63(4), 10-13.

Rosen, B., **Thomsen, C.**, Snead, C., & Day, C. (2011). Review of literature: Five evidence-based sexuality education interventions. *The Health Education Monograph Series*, 28(2), 25-30.