Predicting Alcohol Drinking Intention and Behavior of Thai Adolescents

Rutja Phuphaibul, Charlermsri Nuntawan, Carol J Loveland-Cherry

Abstract: This study, one of seven projects investigating health risk behaviors of Thai adolescents, sought to determine the ability of Ajzen's Theory of Planned Behavior to predict alcohol drinking via examination of 7th - 9th grade Thai students' attitudes, subjective norms, perceived behavioral controls and alcohol drinking intentions. In addition, the effect of gender differences on the students' drinking intention was examined. Ajzen's Theory of Planned Behavior postulates the more favorable the attitude and subjective norm, and the greater the perceived behavioral control, the stronger one's intention will be to perform a given behavior. During a series of 3 data collection phases (elicitation study, pilot study and final data collection-actual study) data were obtained, through use of a researcher developed Demographic Data Questionnaire and an Alcohol Assessment Questionnaire, and analyzed by way of descriptive statistics and hierarchical multiple regression.

Results revealed 14% of the subjects drank alcohol within the previous month. In addition, the males reported more episodes (3.8 per month) of alcohol consumption and more intake consumption (4.7 glasses per episode) than the females. Regression analysis demonstrated the explanatory power of the Theory of Planned Behavior, in that perceived behavioral control predicted behavioral intention beyond attitude and subjective norm. The adolescents' intention to drink alcohol and perceived behavioral control explained 9.2% of variance in their drinking behavior, while their perceived behavioral control had a significant positive effect on both intention to drink and drinking behavior. Combined, the subjects' attitudes, subjective norm and perceived behavioral controls predicted 39.2 % of variance of their intention to drink alcohol within the next 30 days. In addition, the effect of gender on predicting intention was demonstrated.

Pacific Rim Int J Nurs Res 2011 ; 15(1) 28-38

Key words: Adolescents' intention to drink; Alcohol consumption; Theory of Planned Behavior; Drinking behavior

Introduction

Drinking among adolescents is a major threat to the national health of Thais, as the consumption rate established during adolescence influences lifelong drinking patterns.[1] The World Health Organization (WHO) has estimated that 5% of the

Correspondence to: Rutja Phuphaibul, *RN, DNS. Professor, Department of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, 270 Rama 6 Road, Phayathai, Bangkok 10400, Thailand.*
E-mail: *rarph@mahidol.ac.th*
Charlermsri Nuntawan, *RN, MPh. Assistant Professor, Department of Nursing, Faculty of Medicine Ramathibodi Hospital, Mahidol University, Thailand.*
Carol J Loveland-Cherry, *RN, PhD. Professor Emeritus, School of Nursing, University of Michigan, Ann-Arbor, Michigan, USA*

world's population, aged 15-29 years, consume alcohol and more than 140 million individuals are suffering from alcohol dependence worldwide.[2] In addition, the per capita alcohol consumption among Thais, in 2000, was almost 14 liters.[3] Not surprisingly, driving while under the influence of alcohol has been identified as a leading cause of accidents and injuries throughout the world.[2-4]

Although selling alcohol to individuals, under the age of 18, is illegal in Thailand, the incidence of alcohol use among 11-19 year old Thais ranges from 18.3% to 21.33%. As in other countries, there has been an alarming increase in alcohol consumption among Thai women.[5-7] In addition, adolescents' behavior, within Western cultures, has been found to be related to peer pressure, environmental factors and their perception about such behavior, with male adolescents exhibiting more risk behaviors than female adolescents.[8] Thus, in order to develop strategies to decrease Thai adolescent alcohol use, there appears to be a need for health care providers and society to better understand their beliefs regarding alcohol consumption.

Theoretical Framework and Related Literature

Human intention and behavior, according to Ajzen's Theory of Planned Behavior (TPB),[9-10] are affected by one's attitude, subjective norm and perceived behavioral control. Attitude is viewed as the belief that outcomes of one's behavior and evaluation of the ensuing outcomes are the basis for development of either a favorable or unfavorable attitude toward any given behavior. Subjective norm, on the other hand, is seen as the belief that the normative expectations of others, and one's motivation to comply with such expectations, results in perceived social pressure. The third factor, perceived behavioral control, is considered to be the belief that the presence of factors that may facilitate or impede the performance of one's behavior, and the perceived power to manage such factors, gives rise to perceived behavioral control. Thus, the more favorable one's attitude and subjective norm, and the greater one's perceived behavioral control, the stronger is one's intention to perform a given behavior.

Human intention, in accord with the TPB, is assumed to be the immediate antecedent of behavior, while perceived behavioral control has been found to predict both intention and behavior. The components of the TPB have been recognized for their ability, as a group, to predict various behaviors. For example, attitude, subjective norm and perceived behavioral control have been found to account for 28-40% of variance of intention to drink alcohol, while intention to drink alcohol and perceived behavioral control have been found to explain 12-50% of the variance regarding drinking behavior.[11-13] However, the negative consequences of alcohol usage have been discounted when perceived peer norms have been used to predict alcohol consumption among adolescents.[13]

Although a number of studies regarding alcohol consumption among various populations have been undertaken,[11-19] no related studies among Asian populations could be located in English language or Thai publications. A study that predicted smoking intention and behavior among Thai adolescents was the only locatable, published research that investigated the use of the TPB among Thais.[20] Thus, based upon prior research and the lack of studies regarding alcohol consumption among Thai adolescents, this research sought to examine the predictability of attitude, subjective norms and perceived behavioral control on alcohol drinking intentions and on alcohol drinking behavior of 7th to 9th grade adolescent Thai students.

Method

Design: This study, one of seven projects investigating health risk behaviors of Thai adolescents, consisted of three data collection phases: (a) an elicitation study, using focus group interviews; (b) a pilot study to test the instrument developed as a result of the elicitation study; and, (c) the final phase of data collection (actual study), a cross-sectional survey design, using the instrument tested in the pilot study.

Ethical considerations: Prior to data collection, the study was approved by the Ethical Committee on Human Research, Faculty of Medicine, Ramathibodi Hospital, Mahidol University, and the principals of the schools used as data gathering sites. All potential subjects recruited for the three phases of the study were given consent and assent forms, as well as a written information sheet explaining the study. The information sheet addressed: the purpose of the phase of the study in which a student would be involved; the approximate amount of time involved to participate; the fact that participation was voluntary; confidentiality and anonymity issues; and, the right to withdraw without repercussions. Students desiring to take part in any one of the three phases of the study were asked to return their signed consent and assent forms to their respective classroom teachers within one week. Parents or legal guardians were asked to sign the consent forms and adolescents were asked to sign the assent forms. Those who did not return the signed assent and consent forms, within one week, were excluded from the study.

Sample and settings: Selection criteria for subjects, in all three phases of the study, consisted of being a 7^{th}-9^{th} grade Thai student, from metropolitan Bangkok or the Northern, Northeastern, Central/Western or Southern regional areas of Thailand, enrolled in purposively selected schools under the direction of the Office of the Commission of Basic Education. Schools used as data collection sites, for both the elicitation study and actual study, were the same ten institutions (six urban schools [one from each of the four regions, plus two from metropolitan Bangkok] and four rural schools [one from each of the four regions]). For the pilot test, ten schools, within the same five geographical areas used for the elicitation study and the actual study, were purposively selected. To avoid cross-contamination of data between the pilot study and the final phase of data gathering (actual study), the schools were not the same ones used in the actual study.

For the elicitation study, 100 students (10 per school) were purposively selected to take part in focus group sessions. These students were not involved in any other aspects of the study. A total of 99 students (33 seventh graders, 34 eighth graders and 32 ninth graders) assented to participate. They included 56 (56.6 %) females and 43 (43.4%) males.

For the pilot study, 200 students (20 per school) were purposively selected. Of those students, 192 (66 seventh graders, 64 eighth graders and 62 ninth graders) assented to be in the study. They included 102 (53.1%) females and 90 (46.9%) males.

For the final phase of data collection (actual study), 900 students (90 per school), who had not been in any other phase of the study, were purposively selected. A total of 681 (response rate = 75.7%) seventh (n = 212; 31.1%), eighth (n = 267; 39.2%) and ninth grade (n = 202; 29.7%) students from the Northern (n=128), Northeastern (n=128), Central/Western (n=133) and Southern (n=129) regions, as well as metropolitan Bangkok (n=163), participated. They ranged in age from 12 to 16 years of age (mean = 14.05 yrs.) and, predominantly, had a grade point average below 3.0 (n = 371; 54.4%) on a 4.0 scale. Most were Buddhist (n = 631; 92.6%) and female (n = 382;

56%). More than half of their mothers (n = 361; 53%) and fathers (n = 320; 46.9%) had received 6 years or less of formal education. The majority (n = 456; 66.9%) came from a family with a monthly income of less than 20,000 baht ($666 USD).

Procedure

Elicitation phase of the study: During this phase of the study, The *Adolescent Alcohol Assessment Questionnaire* (AAAQ) was developed, from the perspective of the TPB, using data obtained from focus group sessions at each of the ten study-site schools. Each 60-90 minute focus group was held at a school and audio-taped. The focus groups included 9-10 students who responded to researcher-developed, open-ended questions regarding the adolescents' attitude, subjective norm, perceived behavioral control and intention to drink alcohol. Categories and examples of the open-ended questions included: attitude ["What are the benefits you will have if you drink alcohol?"]; subjective norm ["Who are the significant persons effecting your drinking behavior over the next 30 days?"]; perceived behavioral control ["What will drive you to drink over the next 30 days?"]; and, intention ["Do you intend to drink over the next 30 days, and how much?"]. Based upon content analysis of the data obtained from the focus groups, and review of the literature, the first draft of the AAAQ was developed.

The first draft of the AAAQ consisted of 5-parts (a total of 49-items) that assessed each adolescent's: attitude toward drinking (23 items); subjective supportive norm (5 items) and subjective prohibitive norm (5 items); perceived behavioral control (14 items); intent to drink (1item); and, drinking behavior (1 item). Findings from the focus group sessions suggested the importance of measuring, via two categories (supportive and prohibitive), the beliefs (subjective norms) of the relevant referent individuals and groups (i.e. friends, father, mother, girlfriend or boyfriend) that influenced drinking behavior. The draft of the AAAQ was reviewed by a panel of 5 experts, with backgrounds in behavioral science, adolescent health, nursing science and pediatric nursing, who assessed the instrument's content validity. Recommendations were made to modify the language so as to make the instrument more appropriate for use with adolescents (i.e. "Alcohol drinking makes me attractive to others" was changed to "Alcohol dinking makes me look cool."). Based upon the experts' feedback, modifications in the instrument items were made. The modified instrument was refined and returned to the experts twice more, after which they agreed on the final version. The final version of the AAAQ remained a 5-part, 49-item questionnaire that was used to assess each adolescent's: attitude toward drinking (23 items); subjective supportive norm (5 items) and subjective prohibitive norm (5 items); perceived behavioral control (14 items); intent to drink (1 item); and, drinking behavior (1 item).

Pilot phase of the study: The final version of the AAAQ was pilot tested with 192 (66 seventh graders, 64 eighth graders and 62 ninth graders) subjects who were not involved in any other part of the study. The AAAQ and a researcher-developed demographic data sheet were administered to the students in their respective classrooms. Instructions regarding how to complete the instruments were provided. No identifying marks were permitted on either instrument. Results of the pilot test revealed the internal consistency of the AAAQ to be at a satisfactory level (attitude toward drinking [α = .80]; supportive subjective norm [α =.92]; prohibitive subjective norm [α=.91]; and, perceived behavioral control [α=.96]). Exploratory factor analysis was conducted to examine the

construct validity of the final version of the AAAQ. Since the pilot test suggested the AAAQ was valid and reliable, no changes were made in the instrument for use in the final phase of the study (actual study).

Final phase of the study: In the final data collection phase (actual study), 681 students from ten selected schools were administered, in their respective classrooms, the two questionnaires (*Demographic Data Questionnaire and AAAQ*). Students were instructed regarding: how to complete the questionnaires; to be honest in their responses; to place the completed questionnaires in the provided envelopes; and, not to place their names or initials on the questionnaires. The students took approximately 20-30 minutes to complete both questionnaires.

Instruments: The *Demographic Data Questionnaire (DDQ)* contained 10 items to obtain information regarding each subject's: regional area of residence, name of school, grade level, age, gender, grade point average, religion, mother's and father's level of education, and monthly family income.

The final version of the *Adolescent Alcohol Assessment Questionnaire (AAAQ)* consisted of five parts: attitude towards alcohol drinking; subjective norms (supportive and prohibitive) influencing alcohol drinking/non-drinking behavior; perceived behavioral control; intention to drink; and, drinking behavior. Each of these parts is explained below.

Attitude towards alcohol drinking: Attitude toward alcohol drinking was measured by 23 parallel items that assessed each subject's beliefs about the likely outcomes of drinking behavior and evaluation of these outcomes. The belief items addressed each respondent's ideas about drinking alcohol (i.e. "Alcohol drinking makes me look cool."). Possible responses for the belief items included 1 = "strongly disagree" to 5 = "strongly agree." For the parallel outcome evaluation items, statements such as "Looking cool is _____" required the provision of words, ranging from 1 = "very bad" to 5 ="very good," to complete the statement. The total attitude score was calculated by multiplying each belief score by its parallel outcome evaluation score, summing the multiplied scores across items and dividing by 23. Possible scores ranged from 1 to 25, with higher scores indicating a more favorable attitude toward drinking behavior.

Subjective Norms influencing alcohol drinking/non-drinking behavior: Supportive and prohibitive norms were assessed by way of 10 items (5 for each type of norm). An example of a supportive norm, with respect to a referent person, was: "If I drink alcohol, my friends will be _____". An example of a parallel prohibitive norm item was: "If I do not drink alcohol, my friends will be _____". Possible responses to both the supportive and prohibitive norm items were 1= "very unsupportive" to 5 = "very supportive." The total subjective norm score was calculated by multiplying the score for each supportive norm item by the score for its parallel prohibitive norm item, summing the multiplied scores across items and dividing by 23. The possible range of total scores for subjective norms (supportive and prohibitive) was 1 to 25. A high score suggested high perceived social norms in favor of, or against, alcohol drinking behavior.

Perceived Behavioral Control (PBC): Perceived behavioral control was assessed by 14 items that examined control belief strength and control belief power that influenced (i.e. facilitated or impeded) alcohol drinking behavior. An example of a control belief strength item was: "It is _____ to drink when I am stressed." Possible responses to control belief strength items were 1 = "much more difficult" to 5 = "much easier." An example of a parallel control belief power item was: "The likelihood that I will be stressed within the next 30 days is _____." Possible responses to control belief power items were 1 = "most unlikely" to 5 = "most

likely." The total PBC score, which could range from 1-25, was calculated by multiplying the score for each control belief strength item by the score of its parallel control belief power item, summing the multiplied scores across items and dividing by14. High PCB scores reflected a high level of control belief over alcohol drinking behavior.

Intention to drink (Int): Intention to drink was measured with 1 item ("I expect I will drink alcohol in the next 30 days) which had possible responses of 1 = "definitely will not drink" to 5 = "definitely will drink". A high response score suggested a high intention to drink within the next 30 days.

Drinking behavior (DB): Drinking behavior was measured by one self-report item that requested, over the last 30 days, the number of glasses of alcohol (regardless of type) consumed per drinking episode and the frequency of a drinking episode. Drinking volume, to reflect the subject's drinking behavior over the last 30 days, was calculated by multiplying the number of glasses of alcohol consumed per drinking episode by the frequency of a drinking episode.

The internal consistencies of the various parts of the AAAQ, for the final phase of data gathering (actual study), were found to be similar to those identified in the pilot study. They included: attitude toward drinking [α =.92]; supportive subjective norm [α =.92] and prohibitive subjective norm [α= .92]; and, perceived behavioral control [α=.96].

Data analysis: Descriptive statistics were used to analyze the demographic data and item responses to the AAAQ. Hierarchical multiple regression analysis was employed to: identify the best predictors (attitude toward drinking, supportive subjective norm, prohibitive subjective norm and perceived behavioral control) of intention to drink within the next 30 days; and, identify the best predictors (intention, attitude toward drinking, supportive subjective norm, prohibitive subjective norm and perceived behavioral control) of drinking behavior over the past 30 days.

Results

Descriptive statistics: Fourteen percent (n = 95) of all subjects reported drinking alcohol within the last 30 days. Of these 95 subjects, 53 were males and 46 were females. The subjects reported mainly drinking beer (59%) followed by wine (40%), hard liquor (7%) and other types of alcohol beverages (11%). The female adolescents reported drinking wine more often than did the male adolescents. On average, the frequency of alcohol consumption was 3.8 times per month (about once a week), with an average of 4.7 glasses per drinking episode. Descriptive statistics of the variables (attitudes, social norms, perceived behavioral control, intention and drinking behavior) are shown in **Table 1**.

Table 1 Attitude, subjective norms, perceived behavioral control scores and intention to drink within the next 30 days (n=681)

Variables	Range of Scores	M (std. dev.)
Attitudes	1.00 13.00	4.24 (2.13)
Subjective norm (Supportive)	1.00 16.00	3.48 (2.78)
Subjective norm (Prohibitive)	1.00 24.00	5.71 (2.72)
Perceived Behavioral Control	1.00 13.00	4.33 (2.13)
Intention to drink within 30 days	1.00 5.00	1.62 (0.94)

Hierarchical multiple regression analysis: Attitude, subjective norms (supportive and prohibitive) and perceived behavioral control were entered into the first hierarchical regression model. Attitude, subjective norm (supportive) and perceived behavioral control explained 39.2% of the variance in the intention to drink within the next 30 days. The only variable that did not predict intention to drink alcohol within the next 30 days was prohibitive subjective norm (See **Table 2**).

Table 2 Predictors of drinking intention within the next 30 days (n= 681)

Predictors	*b*	*SE*	β	*t*	*p*
Attitude	2.037E-03	.001	.107	2.792	.005
Subjective Norm: Supportive	8.126E-03	.002	.241	4.895	.000
Subjective Norm: Prohibitive	-1.822E-03	.001	-.063	-1.850	.065
Perceived behavioral control	7.839E-03	.001	.381	8.754	.000
Constant	0.850	.083	-	10.301	.000

$R = .629$; $R^2 = .396$; $R^2_{adj} = .392$; $F_{df\ 4,676} = 110.68$

A second hierarchical regression model, using the same approach, included attitude, subjective norms (supportive and prohibitive), perceived behavioral control and drinking intention to predict drinking behavior. Drinking intention and perceived behavioral control explained only 9.2% of the variance of drinking behavior over the past 30 days (See **Table 3**).

Table 3 Predictors of drinking behavior over the last 30 days (n=681)

Predictors	*b*	*SE*	β	*t*	*p*
Attitude	6.835E-04	.002	.017	0.364	.714
Subjective Norm: Supportive	1.203E-03	.004	.017	0.280	.779
Subjective Norm: Prohibitive	-3.384E-04	.003	-.006	-0.135	.893
Perceived behavioral control	6.203E-03	.002	.145	2.585	.010
Intention to drink	0.378	.098	.182	3.868	.000
Constant	-0.580	.225	-	-2.574	.010

$R = 0.314$; $R^2 = 0.098$; $R^2_{adj} = 0.092$; $F_{df\ 5,675} = 14.728$

Finally, gender differences regarding predictors of intention to drink within the next 30 days were analyzed. Predictors of female adolescents' intention to drink were found to be attitude, subjective norms (supportive and prohibitive) and perceived behavioral control, which explained 45.3% of the variance. However, only the supportive subjective norm and perceived behavioral control predicted male adolescents' intention to drink, which explained 32% of the variance (See **Table 4**).

Table 4 Gender differences in predicting intention to drink within the next 30 days.

Predictors	Adjusted R^2	Model for Females (N=376)			Adjusted R^2	Model for Males (N=305)		
		β	b	SE		β	b	SE
Attitude		.108*	1.91E-03	.001		.110	2.23E-03	.001
SN: Supportive		.267***	8.95E-03	.002		.208**	7.14E-03	.003
SN: Prohibitive		-.132**	-3.87E-03	.001		-.002	-5.20E-03	.002
PBC		.420***	8.25E-03	.001		.334***	7.19E-03	.001
Constant		.926		.097		.808		.144
	0.453				0.320			

SN = Subjective norm, PBC = Perceived Behavioral Control

***p<0.001, **p<0.01, *p<0.05

Discussion and Recommendations for Future Research

Results of this study support use of the theoretical components of the TPB to predict Thai adolescents' intention to drink and their drinking behavior. The TPB variables (attitude, supportive subjective norm and perceived behavioral control) explained 39.2% of the variance in intention to drink over the next 30 days, which is consistent with results reported in the prior research.[12,18-19] Intention and perceived behavioral control were found to explain only 9% of the variance in predicting drinking behavior, which was significantly less than prior studies.[12,21-25] This may be the result of under reporting of drinking behavior by the adolescents, since drinking is not considered an acceptable cultural behavior among young Thais. In addition, the fact that intention to drink was limited to the next 30 days may have been too short of a time frame to adequately capture the adolescents' full intent to drink. Thus, further investigation applying additional factors (i.e. descriptive norms, anticipated regret, family relationships, adolescent self-esteem and adolescent depression) for predicting both intention to drink and drinking behavior is recommended.

The regression results failed to show an influence of significant persons, (parents, relatives, friends, health personnel, teachers and religious leaders) on prohibiting intention to drink among adolescents. However, the supportive effect of significant persons on intention to drink alcohol was demonstrated. Although prior research has revealed young males' intention to drink and drive is predicted by their attitudes, their perceived behavioral control and, to a lesser degree, subjective norms,[26] the effect of significant persons on predicting drinking behavior was not demonstrated in this study.

The effects of parenting on adolescents' alcohol use needs further exploration, since prior research has suggested parental influence has more of an impact if the adolescent is not in a drinking conducive environment.[27] For example, during holidays in some Western cultures, adolescent drinking with parents and other adults may be common.[28] However, because of Buddhist doctrine, such behavior is not common among Thai families. None-the-less, during the elicitation phase of the

study, the adolescents, in this study, indicated they kept their drinking a secret from their parents. Thus, Thai adolescents' perceptions of parental norms about drinking warrants further investigation.

When the male and female data were analyzed separately, a gender difference, in the predictive ability of the theoretical components for intention to drink was noted. For females, attitude, supportive subjective norm, prohibitive subjective norm, and perceived behavioral control predicted intention to drink, while only supportive subjective norm and perceived behavioral control predicted intention to drink in male adolescents. In addition, perceived behavioral control was the strongest predictor for both male and female adolescents. This finding is consistent with those of other studies.[17, 29] Results from this study suggest the female adolescents were more compliant and responsive to prohibitive influences from significant persons than the male adolescents. The males, however, appeared to be susceptible to subjective norms that encouraged drinking. These differences could be the result of more risk taking behavior on the part of the males. Future research examining gender-focused, school-based, intervention programs addressing the TPB variables might prove beneficial.

Since this study examined only variables within the TPB, other variables (i.e. family relationship, self esteem and depression) that may affect adolescents' intention to drink need to be examined. It also is important to recognize the role of subjective norms in supporting and preventing alcohol consumption among adolescents. Thus, investigations regarding family interventions that focus on assisting families to foster subjective norms and attitudes to decrease intention to drink and develop perceived behavioral control are indicated.

Given that familial drinking should be limited or avoided so as to prevent early age consumption of alcohol, parents should be encouraged to become actively involved in monitoring their children's' activities.[19,26] In addition, school-based intervention programs that support peer and teachers involvement in the formation of realistic subjective norms and attitudes need to be encouraged.

Limitations

Like all studies, this research has limitations. The adolescent subjects came from ten select schools in Thailand, thus generalizability of the findings across Thailand is somewhat limited. In addition, since only Thai students were studied, applicability of the findings to other cultural settings is limited. One also has to assume the adolescents were honest in their responses. Given the sensitive nature of the topic under examination, the students may have responded in a manner they thought the researchers desired. In addition, the results may have been influenced by limitations of the cross-sectional design.

Acknowledgement

The authors wish to express appreciation to the Thailand Health Promotion Foundation for their funding this of research.

References

1. Jernigan DH. Global status report: alcohol and young people. Geneva: World Health Organization; 2001.
2. World Health Organization. Global burden of disease study. Geneva: World Health Organization; 2001.
3. Center of Alcohol Studies. Alcohol business and money market. Bangkok: CAS; 2006.
4. McLean R, Connor J. Alcohol and injury: A survey in primary care setting. NZ Med J. 2009; 122(1303): 21-8.
5. Foster SE, Vaughan RD, Foster WH, Califano JA. (2003). Alcohol consumption and expenditures for underage drinking and adult excessive drinking. JAMA. 2003; 289: 989-95.

6. Kajornthum Y, Kajornthum P, Sornpaisarn B. Efficacy of the policies and strategies for alcohol consumption control. Bangkok: Design; 2000.
7. Phuphaibul R, Leucha Y, Puttawattana P, Sirapongam Y, Thanooruk R.,Nuntawan C., et al. Family participation in adolescent health promotion. Bangkok: World Health Organization Thailand office; 2003.
8. Bhana A. Alcohol advertising, movies, and adolescents. Addiction. 2008; 103:1935-6.
9. Ajzen I. The Theory of Planned Behavior. Organ Behav Hum Decis Process. 1991; 50: 179-211.
10. Ajzen I. Behavioral interventions based on the Theory of Planned Behavior. [updated 2003 December 10, cited 2009 November 2]. Available from: URL: http://www-unix.oit.umass.edu/ajzen/tpb.diag.html.
11. Conner M, Warren R, Close S, Spark P. Alcohol consumption and Theory of Planned Behavior: An examination of cognitive mediation of past behavior. J Appl Soc Psychol. 1999; 29: 1696-704.
12. Foxcroft DR, Ireland D, Lister-Sharp DJ, Lowe G, Breen R. Primary prevention of alcohol misuse in young people. The Cochrane Database of Systematic Reviews. [updated 2002 May 29, cited 2009 November 2]. Available from: http://medserach.lib.umich.edu/ovidweb/ovidweb.cgi.
13. Kuther TL, Higgins-D'Alessandro A. Attitudinal and normative predictors of alcohol use by older adolescents and young adults. J Drug Educ., 2003; 33: 71-90.
14. Norman P, Bennett P, Lewis H. Understanding binge drinking among young people: An application of the Theory of Planned Behavior. Health Educ Res. 1998; 13(2): 163-9.
15. Rise I, Wilhelmson BU. Prediction of adolescents' intention not to drink alcohol: Theory of Planned Behavior. Am J Health Behav. 1998; 22: 206-17.
16. Cooke R, Sniehotta F, Schuz B. Predicting binge-drinking behaviour using an extended TPB: Examining the impact of anticipatory regret and descriptive norm. Alcohol. [updated 2006 March 10, cited 2009 November 2]. Available from: http://www.alcalc.oxfordjournal.org.
17. Wall AM, Hinson RE, McKee SA. Alcohol outcome expectancies, attitudes toward drinking and the Theory of Planned Behavior. J Stud Alcohol. 1998; 59:409-19.
18. Jones TC, Modeste N, Anderson B, Lee J, Lim J. Factors influencing the intention to quit drinking alcohol among African American/black pregnant women. Californian J Health Promot. 2007; 5(3): 131-44.
19. Marcoux BC, Shope JT. Application of the theory of planned behavior to adolescent use and misuse of alcohol. Health Educ Res Theory Pract. 1997; 12: 323-31.
20. Ua-Kit N, Phuphaibul R. Panirat R, Loveland-Cherry C, Vorapongsathorn T. Cigarette smoking behaviors among Thai adolescents in Metropolitan Bangkok. Thai J Nurs Res. 2004; 8(4): 249-57.
21. Norman P, Bennett P, Lewis H. Understanding binge drinking among young people: An application of the Theory of Planned Behavior. Health Educ Res. 1998; 13(2): 163-9.
22. Rise I, Wilhelmson BU. Prediction of adolescents' intention not to drink alcohol: Theory of Planned Behavior. Am J Health Behav. 1998; 22: 206-17.
23. Warner LA, White HR. Longitudinal effects of age at onset and first drinking situations on problem drinking. Subst Use Misuse. 2003; 14: 1983-2016.
24. Callas PW, Flynn BS, Worden JK. Potentially modifiable psychosocial factors associated with alcohol use during early adolescence. Addict Behav. 2004; 29: 1503-15.
25. Marcil I, Bergeron J. Motivational factors underlying the intention to drink and drive in young male drivers. J Safety Res. 2001; 32: 363-76.
26. Martyn KK, Loveland-Cherry CJ, Villarruel AM, Callegos Cabriales E, Zhou Y, Ronis DL, Eakin B. Mexican adolescents' alcohol use, family intimacy, and parent-adolescent communication. J Fam Nurs. 2009; 15: 152-70.
27. Gerrard M, Gibbons FX, Zhao L, Russell, DW, Reis-Bergan, M. The effect of peers' alcohol consumption on parental influence: A cognitive meditational model. J Stud Alcohol.1999; Suppl., 13: 32-44.
28. Mayer RR, Forster JL, Murray DM, Wagenaar AC. Social settings and situations of underage drinking. J Stud Alcohol.1998; 59(2): 207-15.
29. Chumpolweerapong P. Alcohol consumption behavior of female adolescents: Case study in vocational training colleges in Ranong Province. [thesis]. Bangkok (Bangkok): Mahidol Univ.; 2005.

การทำนายความตั้งใจและพฤติกรรมการดื่มเครื่องดื่มแอลกอฮอล์ในวัยรุ่น

รุจา ภู่ไพบูลย์, เฉลิมศรี นันทวรรณ, Carol Loveland-Cherry

บทคัดย่อ: การศึกษาครั้งนี้เป็นการศึกษาทัศนคติ บรรทัดฐานสังคม การรับรู้ความสามารถในการควบคุมตนเอง ความตั้งใจและพฤติกรรมการดื่มแอลกอฮอล์ในกลุ่มตัวอย่างคือนักเรียนชั้นมัธยมศึกษาปีที่ 1-6 จำนวน 681 คนตามทฤษฎีการวางแผนพฤติกรรมของเอเซน ซึ่งทฤษฎีนี้ระบุว่าการที่บุคคลมีทัศนคติที่ดีเกี่ยวกับพฤติกรรม มีการรับรู้บรรทัดฐานสังคมว่าเป็นที่ยอมรับ และรับรู้ว่าตนมีความสามารถในการควบคุมสูง เขาจะมีความตั้งใจที่จะมีพฤติกรรมนั้นสูง การศึกษาครั้งนี้เป็นการทดสอบความสามารถของทฤษฎีการวางแผนพฤติกรรมในการทำนายความตั้งใจและพฤติกรรมการดื่มแอลกอฮอล์ในนักเรียนไทย รวมทั้งศึกษาอิทธิพลของความแตกต่างระหว่างเพศในการตั้งใจดื่ม แบ่งการเก็บข้อมูลเป็น 3 ระยะคือ การหาข้อมูลระยะแรก การศึกษานำร่อง และ การเก็บข้อมูลจริงโดยใช้แบบสอบถามข้อมูลทั่วไปและแบบสอบถามประเมินพฤติกรรมการดื่มแอลกอฮอล์และปัจจัยที่เกี่ยวข้อง มีการวิเคราะห์ข้อมูลเชิงบรรยายและวิเคราะห์การถดถอยพหุคูณแบบลำดับขั้น ผลการศึกษาพบว่ากลุ่มตัวอย่างร้อยละ 14 ดื่มแอลกอฮอล์ในช่วง 1 เดือนที่ผ่านมา กลุ่มวัยรุ่นชายดื่มบ่อยกว่าวัยรุ่นหญิง โดยรวมเฉลี่ยดื่ม 3.8 ครั้งต่อเดือน ครั้งละ 4.7 แก้ว ผลการวิเคราะห์การถดถอยพหุคูณแบบลำดับขั้นพบว่าตัวแปรจากทฤษฎีการวางแผนพฤติกรรมได้แก่ความสามารถในการควบคุมตนเอง ทัศนคติ และบรรทัดฐานสังคม สามารถร่วมกันทำนายความแปรปรวนของความตั้งใจที่จะดื่มแอลกอฮอล์ใน 30 วันข้างหน้าได้ร้อยละ 39.2 และ พบว่าความตั้งใจที่จะดื่มแอลกอฮอล์ใน 30 วันข้างหน้าร่วมกับการรับรู้ความสามารถในการควบคุมตนเองทำนายความแปรปรวนของพฤติกรรมการดื่มแอลกอฮอล์ได้ ร้อยละ 9.2 และปัจจัยการรับรู้ในการควบคุมตนเองเป็นปัจจัยที่สำคัญและสามารถทำนายทั้งความตั้งใจและพฤติกรรมการดื่มแอลกอฮอล์เชิงบวกได้มากที่สุด

Pacific Rim Int J Nurs Res 2011 ; 15(1) 28-38

คำสำคัญ: ความตั้งใจของวัยรุ่นในการดื่มแอลกอฮอล์ การดื่มแอลกอฮอล์ ทฤษฎีการวางแผนพฤติกรรม การดื่มแอลกอฮอล์

ติดต่อที่: รุจา ภู่ไพบูลย์, *RN, DNS. ศาสตราจารย์ ภาควิชาพยาบาลศาสตร์, คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี มหาวิทยาลัยมหิดล 270 ถนนพระราม 6 พญาไท กรุงเทพฯ 10400 ประเทศไทย E-mail: rarph@mahidol.ac.th*

เฉลิมศรี นันทวรรณ, *ผู้ช่วยศาสตราจารย์, RN, MPh. ภาควิชาพยาบาลศาสตร์, คณะแพทยศาสตร์โรงพยาบาลรามาธิบดี, มหาวิทยาลัยมหิดล, ประเทศไทย*

Carol J Loveland-Cherry, *RN, PhD. Professor Emeritus, School of Nursing, University of Michigan, Ann-Arbor, Michigan, USA*