EFFECTS OF SCHOOL, FAMILY AND ALCOHOL MARKETING COMMUNICATION ON ALCOHOL USE AND INTENTIONS TO DRINK AMONG THAI STUDENTS

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Abstract. This study explored effects of family, school, and marketing communications on alcohol use and intention to drink of Thai students. We conducted a survey in which 5,184 students participated. Respondents were selected randomly from school districts throughout Thailand. In this survey we measured the exposure to, reception of, and perceptions concerning alcohol marketing communication, school absenteeism and achievement, family alcohol use, students' alcohol use, and drinking intentions. Findings indicated students' low alcohol use, moderate intention to drink, and high prevalence of family drinking. The levels of exposure and also the information receptivity to alcohol media marketing of Thai students were low. The respondents had a high level of media literacy on alcohol marketing communication. Multiple regression and focus group discussions provided support for the contention that there were significant effects of school achievement, absenteeism and media marketing communication on alcohol use ($R^2 = 14\%$) and intention to drink ($R^2 = 11\%$). Therefore, consideration of relevant school and alcohol policies, including monitoring of media marketing communication, will be needed.

Keywords: alcohol use, intention to drink, media literacy, marketing communication, Thailand

INTRODUCTION

Alcohol is one among the top three substances often used by Thai adolescents (Ruangkanchanestr *et al*, 2005). A survey in 2004 by The National Statistical Office Ministry of Information and Communication Technology in 2004 revealed that 23.9% of drinkers were youths aged 12-19 (National Statistical Office, 2008). Exposures to alcohol advertising and marketing affect underage drinking (Austin *et al*, 2006; Ringel *et al*, 2006). Other factors such as school, social factors, and family environment were also associated with drinking and intention to drink (Ringel *et al*, 2006).

Adolescents are a vulnerable target of alcohol advertising and direct marketing communication (Science Group of the European Alcohol and Health Forum,

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2009). Despite prevention policies, they are surrounded with persuasive messages about alcohol that are delivered through newspapers, magazines, and social networks (Assunta, 2012). Expectations and beliefs about alcohol, such as relaxing and entertaining effects, are frequently found to influence alcohol use and intention to drink in adolescents (Nash *et al*, 2005; Spijkerman *et al*, 2007). Persons are motivated to behave in a certain way because they expect desirable outcomes (Sittisongkram, 2002). In the US and Germany, there was an association between exposure to alcohol media marketing and youth's drinking in 6th to 8th grade students (Collins *et al*, 2007; Henriksen *et al*, 2008; Morgenstern *et al*, 2011). Children with high levels of exposure to alcohol advertising were 50% more likely to drink and 36% more likely to have the intent to drink in the future (Collins *et al*, 2007).

Also in the US, media literacy, or ability to logically process and interpret messages received through marketing communication, had an impact on alcohol use and drinking intention (Austin *et al*, 2006). Skepticism, perception of desirability, and identification with such alcohol portrayals were associated with magazine readership and alcohol use (Austin *et al*, 2006). Review of recent research in Thailand indicates that there is a need to gain more understanding about the impact of school, family, and marketing communication on alcohol use and intentions to drink of early and late adolescents. Policy makers and people involved in adolescent education need more effective ways to prevent underage drinking. This study investigated influencing factors and alcohol media specific to alcohol use and intention to drink among Thai adolescents.

MATERIALS AND METHODS

Procedure and participants

The study implemented mix-methodology using cross-sectional surveys in December 2011 and focus group discussion in May 2012. Participants in this cross-sectional survey were national representatives of 5,145 students in grades 4th-12th and vocational students in years 1-3. A sample size calculation required at least 4,442 participants and an additional 10% for 5,000 students to attain a 95% confidence interval and a 1.5% relative standard error margin.

Focus group discussions were conducted with 20 eighth graders with low and high alcohol use. The high alcohol use group consisted of 10 students from the northeastern provinces, whereas the low alcohol use group consisted of 10 students from the eastern provinces. Students were asked to relate their experiences and perceptions about alcohol marketing communication. All conversations were audio-recorded and transcribed verbatim.

Ethical considerations

The Research Ethics Committee of the Boromrajjonnani Nursing College at Saraburi Thailand approved this study in 2011 (Ref N° EC 1-012/2554; 2011 Nov 15). All participants were informed of their rights. Pseudonyms were used in the reports of conversations.

Demographic and school data

The self-reported questionnaire measured a student's age, gender, education, GPA, school absences, family income, and number of family drinkers.

Alcohol marketing communication

Media exposure. The 3-item self-reported questionnaire measured frequency, duration, and overall exposure to alcohol media marketing communication through TV,

radio, print media, internet, out-of-home media, and SMS. Response options were on a five-point scale; scores ranged 3-15. Cronbach's alpha was 0.84.

Information reception. The 11-item self-reported questionnaire was used to assess amount of alcohol information received (none, very little, little, moderate, much, very much) through TV, radio, newspapers and magazines, internet, point of purchase (PoP) media, out-of-home media, salespersons, SMS/MMS via telephone, logo brand name, sales promotion activities, and events. The scores ranged 0-85. Cronbach's alpha was 0.88.

Media literacy. The 15-item self-reported questionnaire consisted of skepticism, desirability, and identification with alcohol portrayal scales (Austin *et al*, 2006). Respondents indicated their opinion on a five-point scale, for measuring skepticism with items such as "alcohol makes drinking seem better than it really is" and "sales promotion by alcohol companies is attractive and makes me want to buy or taste it." Score range was 8-40. Cronbach's alpha was 0.93. For desirability: "The women in alcohol ads are always good looking, modern, attractive and a sought after person"; "Men in alcohol ads are strong, masculine, modern and a sought after person"; and "People drinking alcohol in alcohol ads seem to have lots of friends." Score range was 3-15. Cronbach's alpha was 0.83. For identification: "I wish I was as good looking, modern, and attractive as most people in the alcohol ads"; "I want to have as much happiness and fun as the people in the alcohol ads do"; "I want to have as many friends as the people in the alcohol ads do"; and "Corporate social responsibility (CSR) media of the alcohol manufacturers makes me want to buy their products in order to take part in these so-

cial developments." Score range was 4-20. Cronbach's alpha was 0.89.

Alcohol use. The 10-item self-reported Alcohol Use Disorder Inventory Test (AUDIT: WHO, 2002) was used to determine levels of alcohol use: low (score 0-7), hazardous (score 8-15), harmful (score 16-19), and high (score >20). Score ranges were 0-40. Cronbach's alpha was 0.88 in this study.

Intention to drink. Two items were used to assess drinking intentions: definitely not (1), not sure (2), and will drink (3). Score range was 2-6.

Data analyses

Quantitative data were analyzed using SPSS for Windows® (Version 19, IBM, Armonk, NY). Response rates for each questionnaire section were 68.2-100%. Descriptive statistic and regression analyses were used to describe the influence of school, family, and alcohol marketing communication on alcohol use and intention to drink. Content analysis was the technique for analyzing qualitative data. Two researchers examined and compared their findings and described the contexts of alcohol marketing communication, alcohol consumption behavior and intention to drink among Thai students.

RESULTS

Participants in this study were similar in gender, education, and socio-economic status with mean age 13.79 (SD = 2.59). For academic achievement, 35% of students had a GPA of 2.00-3.00, and 56% had a GPA of 3.00-4.00. Table 1 showed mean scores and levels of media exposure, information reception, perceived marketing communication, alcohol use, and intention to drink. There were high numbers of family members who drink alcohol (3-4 members/family). Participants were found

Table 1
Levels of media exposure, information receptions, perceived marketing
communication, alcohol use, and intention to drink.

Variables	n	%	Range	Mean	SD	Level
Age	5,186	100.0	9-22	13.79	2.59	Early adolescent
Absenteeism	5,186	100.0	1-5	1.33	0.91	Low
GPA	3,790	73.1	1-4	2.22	1.07	Moderate
Media exposure	5,186	100.0	13-64	24.67	7.75	Low
Info received	5,186	100.0	0-39	10.85	6.67	Low
Skepticism	5,186	100.0	8-40	34.16	6.44	High
Desirability	5,186	100.0	3-15	5.31	2.75	Low
Identification	5,186	100.0	4-20	7.17	3.63	Low
Family drinking	3,535	68.2	0-4	3.18	1.26	High
Intention to drink	5,143	99.2	2-6	3.42	1.35	Moderate
Alcohol use	5,186	100.0	0-40	2.41	5.53	Low

Table 2
Correlations among school, family, media, alcohol use, and drinking intention
(N=5,185).

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Alcohol use	1										
2. Intention to drink	[a].31	1									
3. Age	[a]25	[a].25	1								
4. GPA	[a].18	[a].20	[a].92	1							
5. Absenteeism	[a].16	[a].07	[a].05	-.03	1						
6. Family drinking	[a].19	[a].19	.02	.02	[a].03	1					
7. Media exposure	[a].18	[a].15	.21	[a].18	[a].05	[a].08	1				
8. Info received	[a].13	[a].08	.07	[a].04	[a].08	[a].04	[a].33	1			
9. Skepticism	[a]-.25	[a]-.21	-.23	[a]-.17	[a]-.11	[a]-.05	[a]-.29	[a]-.27	1		
10. Desirability	[a].26	[a].20	[a].23	[a].17	[a].11	[a].06	[a].25	[a].25	[a]-.74	1	
11. Identification	[a].25	[a].22	[a].21	[a].15	[a].11	[a].06	[a].25	[a].26	[a]-.75	[a].79	1

[a]$p<.05$

to have low levels of school absenteeism, media exposure, information receptions, alcohol use (mean = 2.41, SD = 5.53) and moderate intention to drink in the future. In addition, participants had high level of media literacy including high levels of skepticism towards alcohol marketing communication, and low levels of desirability of and identification with alcohol portrayals.

Influence of school, family, and alcohol marketing communication

The associations between personal characteristics, school achievement and absenteeism, number of family drinkers and alcohol marketing communication exposure with alcohol use and intention to drink are shown in Table 2. There were small to moderately significant relationships between age, GPA, absenteeism,

Table 3
Significant relationships between school factors (GPA and absenteeism) and media exposure with alcohol use and drinking intentions of Thai adolescents.

Model	R^2	R^2 change	F change	df 1	df 2	Sig F change
Alcohol use						
1	.06	.06	84.89	2	2615	.000
2	.07	.01	29.09	1	2614	.000
3	.07	.00	8.79	1	2613	.003
4	.14	.06	38.64	5	2608	.000
Intention to drink						
1	.05	.05	72.34	2	2597	.000
2	.07	.02	35.17	1	2596	.000
3	.07	.00	2.98	1	2595	.084
4	.11	.04	25.58	5	2590	.000

1 Predictors: (Constant), absenteeism, GPA
2 Predictors: (Constant), absenteeism, GPA, age
3 Predictors: (Constant), absenteeism, GPA, age, family drinking
4 Predictors: (Constant), absenteeism, GPA, age, family drinking, media exposure, info received, skepticism, desirability, identification

family drinking practices and alcohol marketing communication with alcohol use and intention to drink ($p<0.05$). Using Pearson's correlation, the relationship between these variables with alcohol use were stronger than intention to drink, age ($r=0.25$ vs $r=0.25$), GPA ($r=0.18$ vs $r=0.20$), absenteeism ($r=0.16$ vs $r=0.07$), family drinking ($r=0.19$ vs $r=0.19$), media exposure ($r=0.18$ vs $r=0.15$), alcohol information reception ($r=0.13$ vs $r=0.08$), skepticism ($r=-0.25$ vs $r=-0.21$), desirability ($r=0.26$ vs $r=0.20$), and identification with alcohol ads ($r=0.25$ vs $r=0.22$). Among these variables age and media literacy (skepticism, desirability, and identification with alcohol portrayals) were found to moderately correlate with alcohol use and intention to drink.

Table 3 illustrates the significant relationships between school factors (GPA and absenteeism) and media exposure with alcohol use and drinking intentions of Thai adolescents. Model 1 summarizes the predictive effects of school factors on alcohol use (6%) and intention to drink (5%). Model 2 shows that age had small significant effects on both alcohol use (1%) and intention to drink (2%). Number of family members who drink had significant impact on adolescents' alcohol use ($p <0.003$) but was not significant for intention to drink ($p =0.084$). Model 4 demonstrates the stronger predictive effect of alcohol media marketing communications on alcohol use (6%) than intention to drink (4%). Overall, absenteeism, GPA, age, family drinking, media exposure, alcohol information received, and media literacy had significant impact on alcohol use (14%) and intention to drink (11%) among Thai students.

Table 4 demonstrates the regression coefficients of each variable that

Table 4
Regression coefficients of factors influent alcohol use and intention to drink.

Variables	Alcohol use					Intention to drink				
	B	SE	Beta	t	p	B	SE	Beta	t	p
(Constant)	-4.67	1.89		-2.47	.013	1.56	.48		3.28	.001
GPA	-.22	.24	-.04	-.95	.341	-.06	.06	-.05	-1.07	.283
Absenteeism	.59	.11	.10	5.23	.000	.03	.03	.02	1.02	.308
Age	.68	.15	.22	4.71	.000	.19	.04	.25	5.29	.000
Family drinkers	.20	.08	.04	2.45	.014	.03	.02	.03	1.35	.178
Skepticism	-.12	.03	-.14	-4.55	.000	-.03	.01	-.12	-3.99	.000
Desirability	.05	.07	.03	.76	.445	-.01	.02	-.02	-.65	.514
Identification	.06	.05	.04	1.21	.226	.03	.01	.07	2.08	.038
Info received	.06	.02	.06	3.33	.001	.00	.00	-.02	-.88	.378
Media exposure	.06	.01	.09	4.41	.000	.02	.00	.11	5.33	.000

influences alcohol use and intention to drink. For alcohol use, the significant predictors were age, school absenteeism, family drinking, skepticism, information received, and media exposure. For intention to drink, age, skepticism, identification with alcohol portrayals, and media exposure were found to be the significant predictors. A personal factor (age) had the strongest impact on alcohol use (β=0.68) and intention to drink (β=0.19). Skepticism concerning alcohol ads and marketing had a negative impact on alcohol use (β=-0.12) and drinking intention (β=-0.03). Contrariwise, exposure to alcohol media and marketing had a positive impact on alcohol use (β=0.02) and drinking intention (β=0.06).

Results of focus group discussions provided additional supports for contentions concerning the influence of alcohol ads and marketing communication on alcohol use and intention to drink among Thai students. Alcohol marketing communications such as at concert events exert influence via advertising logos that promotes images and mood related to drinking. A student in the high-risk drink-

ing group reported:

I saw outdoor advertisements about a concert event sponsored by one beer brand on the way to school. I liked this because it was a big music band and had coyote dancers. The ticket was quite high but I bought one at a cheaper rate at the entrance on the day of the concert. I bought beer there. I like to dance and drink at concerts. (Male, age 15).

Likewise, a student in the low-risk drinking group depicted the influence of drinking alcohol to create a fun mood and at the same time indicated the negative consequences of drinking alcohol on health.

I learned in health education class about the bad consequences of alcohol on health. I also watched TV, viewing people who were having fun while they were drinking, but then in the next scene those people got killed in a car accident. (Female, age 15).

In addition, participants also knew types of alcohol beverages due to alcohol use of family members. One eighth-grade student had a brother who favors beer and

led him to have experiences with drinking. He expressed an opinion towards a specific beer brand, saying:

> My brother and his friends usually let me join when they drink alcohol on a special occasion; I like the sweet taste and feeling of drinking. (Male, age 15).

DISCUSSION

This study investigated the impact of age, GPA, school absent, number of family drinkers, and alcohol marketing communication on alcohol use and drinking intention. Participants were a national sample group of 5,186 Thai students in the fourth to twelfth grades and the first to third years of vocational school. The majority of participants had low levels of alcohol use and moderate levels of intention to drink. Focus group discussions were conducted on low- and high-risk drinking students to examine additional contexts of alcohol use and intention to drink. Findings provided support for the suggestion that there are influences of age, family alcohol use, school factors, and media marketing communication as found in previous studies (Jacob and Johnson, 1997; Larbyai, 2009). In this study, alcohol media marketing communication, media literacy, school achievement, and school absenteeism had significant impact on alcohol use and drinking intentions among Thai students.

The strongest correlation between these variables and alcohol use was the desirability of alcohol products (r=0.26), whereas for drinking intention the primary variable was age (r=0.25). Regression analysis indicated there were significant relationships between school factors, including academic achievement, absenteeism, and alcohol marketing communication, including media exposure

and literacy on alcohol use and intention to drink. In this study sample, alcohol marketing communication and school-related factors were found to have similar impact on alcohol use. For intention to drink, school-related factors were found to have higher impact (5%) than alcohol marketing communication (4%) and age (2%). Results were similar in previous studies (Austin *et al*, 2006; Collins *et al*, 2007; Henriksen *et al*, 2008; Morgenstern *et al*, 2011). Thai students in this study had good media literacy as well as an ability to identify persuasive messages in alcohol marketing communication regarding levels of desirability and identification concerning alcohol (Collins *et al*, 2007).

Results from focus group discussions demonstrated the influences of alcohol media marketing, school environment, and family drinking upon alcohol use and intention to drink of Thai students. Students in the high-risk group identified causes that made most students drink alcohol and viewed alcohol as something with which they had an urge to experiment. These high-risk drinkers reported seeing alcohol advertisements on TV and at convenience stores when they bought other, non-alcohol products. They saw people at home drink alcohol in daily life. They decided to initiate drinking alcohol to explore new experiences and later on developed a desire for the taste of specific alcohol product.

It was found that most Thai students are media literate on alcohol, realize attempts to convey alcohol messages to the consumers do not decrease, and recognize that new media channels are continually created in order to bring alcohol messages to youngsters. This study suggests that exposure to alcohol advertising and marketing communication influ-

ences alcohol use and drinking intentions. Therefore, rules and regulations to limit alcohol media marketing as well as communication activities sending persuasive messages designed to arouse adolescents' intentions to drink–especially through the internet, personal selling and sales promotions–should be rigorously investigated. Although the majority of the respondents reported low alcohol use and responded that they would definitely not drink alcohol in the future, it was found that school achievement and school absenteeism significantly affected alcohol use and drinking intentions. Prevention programs targeted toward promoting school commitment and participation in school activities are needed as a precautionary measure.

This study only focused on the investigation of levels of media exposure and alcohol information received through different media channels. There is a need for future study to include various forms of alcohol marketing communication that have been used in alcohol marketing to induce adolescents to initiate drinking. To establish the causal relationship between alcohol use and intention to drink, research on the monitoring of alcohol marketing communication messages via PoP media, out-of-home media, exposure, reception, and media literacy patterns remain essential.

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