ORIGINAL ARTICLE

FACTORS INFLUENCING ALCOHOL CONSUMPTION AMONG UNIVERSITY STUDENTS IN SOUTHERN THAILAND

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ABSTRACT

Background. Underage drinkers are the primary cause of death and illness worldwide. Initiation of drinking at younger ages and levels of drinking during young adulthood may also shape future public health by influencing alcohol consumption. From this situation, it is necessary to study various factors to provide sufficient information to reduce adolescent alcohol consumption.

Objective. This study aimed to examine the prevalence and factors that influenced alcohol consumption of first-year students in a university network in Southern Thailand.

Material and methods. A total participant 685 of 1,100 first-year students from 12 universities in southern Thailand were randomized and recruited using eligible criteria. The instrument was an online questionnaire based on the preceding model that consisted of 9 parts with 93 items. For descriptive analysis, percentages were used to describe the characteristics and alcohol consumption behaviours of participants. In addition, logistic regressions were used to determine the factors influencing.

Results. The results showed 62.3% of participants responded to the online questionnaire. During the past six months, 36% reported consuming alcohol. Males reported drinking more (45.3%) than females. The most popular drink was beer (57.7%). There were 8.16 standard drinks, (82.3%) consumed at night, (70.2%) drank at their place, and consumed with friends (83.6%). The results of multiple logistic regression showed significant factors influencing drinking alcohol. The lower attitude was 2.56 times more likely to consume alcohol than a high level (AOR: 2.56, 95%CI: 1.53-4.28). Reversely, the higher marketing perception was more likely to consume alcohol than a low level (AOR: 5.35, 95%CI: 1.94-14.58). In addition, students with mother drinker, lover drinker, and close friend drinker were more likely to consume alcohol (AOR: 2.35, 95%CI: 1.07-5.16), (AOR: 3.60, 95%CI: 1.99-6.50), and (AOR: 5.29, 95%CI: 3.31-8.45) respectively.

Conclusion. In conclusion, attitude, marketing factors, and social factors were associated with alcohol consumption among Thai university students that were revealed as positive predictors regarding binge drinking. The study shows how healthcare providers may reduce binge drinking by designing effective prevention programs.

Key words: *alcohol consumption, university student, multiple logistic regressions, marketing factors, social factors*

INTRODUCTION

World Health Organization (WHO) presented gender, age, health status, economic wealth in a country, lifestyle choices, religion, and cultural norms that impact alcohol use. More than half of the population in three regions have consumed alcohol – the European Region (EUR) (59.9% of current drinkers), the Region of the Americas (AMR) (54.1%), and the Western Pacific Region (WPR) (53.8%) [1]. For instance, the ratio is 2.9 in the African Region with 32.2% current drinkers, whereas the ratio is 1.8 in the European Region with 59.9% current drinkers [2]. Worldwide, alcohol consumers drink some 32.8 grams of pure alcohol per day (or 15.1 liters of pure

alcohol annually). It is 20% higher (40.0 g/day) in the African Region and about 20% lower (26.3 g/day) in the Southeast Asia Region [1].

Unrecorded alcohol is often cheaper and maybe more produced and consumed in low-income countries. Worldwide in 2016, 57% of the population (15+ years) had not consumed alcohol in the previous 12 months; some 683 million people (12.5% of the world population) had ceased alcohol consumption. Until 2025, half of the WHO regions are expected to increase alcohol per capita consumption among 15+ years, which in the Region of the Americas (from 8.0 to 8.4 liters), the Western Pacific Region (from 7.3 liters to 8.1 liters), and the South-East Asia Region (from 4.5 to 6.2 liters). The highest increase is expected

in the South-East Asia Region [1]. Total alcohol per capita consumption (APC) is defined as recorded and unrecorded alcohol consumption. As shown by the most recent WHO data, the entire APC in the world's population 15 years of age or older amounts to drinking on average 6.4 liters of pure alcohol per year, translating into 13.9 grams of pure alcohol per day.

Thailand has an average consumption of pure alcohol by people aged 15 years and over at 7.1 liters per person per year. Prevalence (in %) of heavy episodic drinking (HED) increases from age 15–19 years to the age of 20–24 years, 15–24-year-olds, when they are current drinkers, often drink in heavy drinking sessions [1]. According to the National Statistical Office's survey of smoking and alcohol behavior data from 2001 to 2014, it found that Thai people aged 15 years and over are current drinkers or the number of people who drank alcohol in the past 12 months was 16,992,017 people or 31.5 percent of the adult population. And although the overall alcohol consumption rate was slightly higher than the previous year. But when analyzed by age group, it found that the trend of alcohol consumption rates between 2011 and 2013 was higher among youths (15-24 years) [1].

The Centers for Disease Control and Prevention (CDC) reports that alcohol is the most used and misused substance among US adolescents and is responsible for an estimated 4,700 deaths per year among youth under age 21. Social norms, social support, and resources available through a social network constitute social-level influences on individual health behavior. Sexual and gender minority (SGM) youth are also found to be the factors of alcohol use [3]. 11.4% of all alcohol consumed consists of unrecorded alcohol, whereas, in low-income and lower-middle-income countries, around 40% of all alcohol consumed is unrecorded alcohol. Worldwide, the prevalence of women's drinking decreased in most regions, except the South-East Asia and Western Pacific regions. Women who drank alcohol in 2016 compared with 2000 despite a worldwide 5% decrease in the current drinking prevalence from 32.3% to 37.3%. Among men, most current drinking decreased by 4.3%, from 53.6% to 57.9%. The main factor affecting the use of alcohol and the effect of alcohol consumption is access to alcohol beverages, business marketing, and the price of alcohol drinks [1].

Sex, there are also essential differences in total APC among drinkers (male/female ratio between 2.7 and 2.8) and HED among drinkers (male/female ratio between 2.1 and 4.2). Females are less often current drinkers than males. More than 50 percent of the world's female population aged 15 years or older are lifetime abstainers (54.6% or 1.489 billion; for men, the figures are: 34.5% or 941 million) [1]. The finding of alcohol outlet density and advertising influence on youth drinking alcohol in Tanzania revealed a high prevalence of outdoor advertisements and the density of alcohol-selling outlets [4].

Alcohol causes more than 200 diseases and entails negative social consequences. The total number of deaths from all causes increased globally from 53.5 million in 2010 to 56.4 million in 2016 [1]. A recent attempt from the Thai government to reduce harm from alcohol is to decrease outlet densities in areas around universities [5].

From the situation above, many related factors have been tried to study as a guide to solving the problem but still found that there is still insufficient information to solve the problem. Therefore, to complete the knowledge on this topic, this study aims to examine the prevalence, patterns, and factors that influenced the alcohol consumption of first-year students in 12 universities in Southern Thailand. This knowledge will indicate the demonstrated patterns of alcohol consumption behavior and important factors affecting students' drinking to design activities and develop a more concrete policy to control alcohol consumption in educational institutions.

MATERIAL AND METHODS

Study design: This primary research is a cross-sectional analytical study. The research was conducted among 19,778 first-year students aged 18-22 years from 12 universities in Southern Thailand. Data were collected from April 2019 to September 2019 via the online questionnaires (URL; https://alcoholfree. sct.ac.th/index.php) with the convenience sampling method, and completion data were analyzed on 31 December 2019. Inclusion criteria for the study subjects included 'Youth' as the age group 18-22 years, studying in the first year, understanding and writing down online data, and communicating in Thai. For exclusion criteria, a person who was unwilling to complete the questionnaire, provide inaccurate data or have comorbidities that could bias the study results will be excluded.

Sample: The 1,100 participants were calculated according to the Krejcie & Morgan formula [6]. The proportion of traits of interest in the population was 0.5, a 3% sampling error was accepted at the 95% confidence level, and an error calculating 10% was added. The final 685 participants were conducted after adjusting eligible criteria. Convenient sampling was used to collect data. The distribution of online questionnaires relies mainly on online media through representatives of coordinators from all 12 universities who have been trained to understand the questionnaires well.

Research tools: In the online survey questionnaire, participants were asked all 93 items divided into nine:

Socio-demographic eleven items, alcohol consumption two items, the pattern of alcohol drinking behavior nine items. The effect after drinking was two items, knowledge twelve items, attitude towards alcohol use eighteen items, Marketing twenty-two items, self-efficacy for alcohol refusal ten items, and influence of relative drinker seven items. A detailed questionnaire has been attached as a supplementary file. The quality of the tools was checked, and the accuracy and reliability were analyzed with tried out with 30 participants. The *Cronbach's* alpha Coefficient showed high reliability, and the whole questionnaire was 0.89.

Data analysis: The data analyzed in this study was performed using STATA version 13 by analyzing descriptive statistics to analyze the process that presented the characterization of the data. Using frequency and percentages, mean and standard deviation (SD), and the coefficients of Multiple logistic regression to find out the factors influencing alcohol consumption of first-year students in the University Network for Happiness in Southern Thailand, presented the Adjusted OR value with a confidence interval of 95% CI.

Ethics: The researcher attached importance to safeguarding online questionnaire responses and informed online consent. The data obtained from the research will be presented academically and confidentially keeping. This is utilized only for analysis and does not affect lifestyle. If the participants are not comfortable providing information, they can withdraw from providing information at any time. This study was approved by the ethical committee, at Walailak University (WUEC-19-042-01).

RESULTS

Characteristics

The majority of respondents were female (74.9%), aged between 18-20 years (81.61%), and Islam (71.8%). In terms of economic burden, there was an average income (Median; 4,000-baht, min: max; 0:50,000), and more than two-thirds (77.1%) showed spending conditions with "not enough or in debt". The data showed nearly half of the respondents (47.2%) lived in apartments or condominiums for the living place. Smoking behavior, gambling, and addiction were rarely reported, with 2% smoking, 5% gambling, and only one person using substances. In addition, the result showed 6.9% of respondents had a congenital disease, and most of them were joyful (84.2%) [Table 1].

Alcohol consumption behaviors

The results of an analysis of the alcohol consumption behavior of first-year students in the past six months, 685 participants found 248 participants with alcohol use, 36.20. percent. The percentage of drinking in

Table 1. Characteristics and socioeconomic factors of participants (n=685)

Characteristics and socioeconomic factors	Number	%
Sex		
Male	172	25.1
Female	513	74.9
Age		
Under 18	13	1.9
18-20 years	559	81.6
20 years or more	113	16.5
Religion		
Islam	492	71.8
Buddhism	187	27.3
Christianity	6	0.9
Average monthly income (baht)		
No income	89	13.0
Not more than 3,000 baht	201	29.3
3,001 – 5,000 baht	273	39.9
5,001 baht or more	122	17.8
Mean (SD) = 4,202.2 (3,545.7) baht, Median (min, max) = 4,000 (0, 50,000)		
Spending conditions		
Not enough/Debt	528	77.1
Enough	140	20.4
Few Save	17	2.5
Living place		
Own house	68	9.9
Dormitory	288	42.0
Apartment / Condo	323	47.2
Other	6	0.9
Smoking		
Never	639	93.3
Quit	32	4.7
Smoking	14	2.0
Addicted		
Never	677	98.8
Quit	7	1.1
Using	1	0.1
Gambling		
No	651	95.0
Yes	34	5.0
Congenital disease		
No	619	90.4
Yes	66	9.6
Personality		
Joyful	577	84.2
Sober	74	10.8
Introvert	22	3.2
Other	12	1.8

Table 2. Number and percentage of alcohol consumption behaviors in the past 6 months (n = 248)

Alcohol consumer behaviors	Number	%
Type of drinking		
Beers	143	57.7
Thai vodka/ whiskey	30	10.3
Thai / Foreign brandy	28	9.5
Alcohol smoothies	55	22.2
Wine	16	6.4
Frequencies (times per week)		
1	141	56.9
2	94	37.9
3-4	5	2.0
More than 4	8	3.2
Amount of standard drinking (Sd) per time (1 Sd is 10 grams of pure alcohol)		
At least 4 Sd	147	59.3
4.1 Sd to 10 Sd	46	18.5
10.1 Sd to 20 Sd	17	6.9
More than 20 Sd	38	15.3
Mean (SD) = 8.16 (10.80), Median (min, max) = 3.03 (0.47, 94.68)		
Place for living		
Dormitory	174	70.2
Somewhere around university	30	12.1
others	44	17.7
Partner of living		
Friend	214	86.3
Family, siblings	33	13.3
others	1	0.4
Smoking		
Never	224	90.3
Sometimes	20	8.1
Always	4	1.6
Amount paying (Bath)		
Not to pay	23	9.3
No more than100	86	34.7
101 – 300	84	33.9
> 300	55	22.2
Mean (SD) = 274.80 (403.56), Median (min, max) = 200 (0, 4,000)		
Affordability		
Always cash	233	94
Sometimes cash	6	2.4
Indebted	9	3.6
Timings		
Afternoon (6.00–7.59 pm.)	16	6.4
Early evening (8–11.59 pm.)	204	82.3
Late evening (12.00–03.59 am.)	28	11.3
Affecting after drinking		
No	90	36.3
Mild	128	51.6
Yes	30	12.1
Behave after drinking		
Normal	136	54.8
Enjoy	86	34.7
Thinking depressive	20	8.1
Manic or aggressive	6	2.4
Driving (car, motorbike) behaviour		
Always	28	11.3
Sometimes	54	21.8
Never	166	66.9

males was 45.3%, more than in females (33.5%). The average is at the age of 16 years of both sexes. The data found females start drinking alcohol more quickly than males, with females starting their first alcohol beverages used at age 10, while males begin drinking for the first time at age 12. The beverage popularity was found that most alcohol drinks were beer 57.7%, followed by alcohol smoothies 22.2%.

Regarding the frequency of drinking, most college students, drank less than 1 to 2 days/week, 56.9 percent, and most students tend to drink late at night (8 pm. to midnight) 82.3%. In terms of drinking volume, it was found that the average alcohol consumption per time was 8.16 standard drinks, which was equivalent to the average consumption of pure alcohol at 81.6 g. Regarding the location of each glass, 70.2% drank alcohol at their residences. Most drinkers were friends (86.3%), and 9.7 percent had smoked during their drinking. The cost for each drink is averaged at 274.80 baht, with most students paying by cash every time 94.0 percent.

It was also found that after drinking alcohol, most of the students felt slightly drunk (51.6 percent). The expression after drinking was as regular as when they did not drink, 54.8 percent, followed by 34.7%, felt more enjoyable. In terms of driving after drinking, it was found that more than 33.1 percent were driving after drinking, which can be categorized as: 11.3% of drivers were drivers every time they drank, and 21.8% were occasionally drivers, as shown in Table 2.

Influencing of relative drinkers on students' alcohol consumption

An analysis of 685 respondents found that 287 students, or 53.5 percent, said that the person who drank the most alcohol was a close friend, followed by people of the same age, accounting for 51.2%, and relatives 43.8%. In contrast, most respondents stated that maternal drinking influenced students at a high level of 77.8%, followed by teacher/staff drinking with a high level of influence on students (74.7%) and couples with a high level of power 72.3% (Table 3, Table 4).

Table 3. Number and percentage of relative drinkers on students' alcohol consumption (n = 685)

Relative drinker	Number	%
Father drink	287	41.9
Mother drink	57	8.3
Siblings/relatives drink	300	43.8
Lover drink	100	14.6
Close friends drink	365	53.3
Teachers/staff drink	70	10.2
Peers drink	351	51.2

Table 4. Influencing of relative drinkers on students' alcohol consumption (n = 685)

Relative drinker	Number and percentage of the level of influencing		
	High	Moderate	Low
Father drink	436	124	125
	(63.6)	(18.1)	(18.2)
Mother drink	533	48	104
	(77.8)	(7.0)	(15.2)
Siblings/relatives drink	401	165	119
	(58.5)	(24.1)	(17.4)
Lover drink	495	96	94
	(72.3)	(14)	(13.7)
Close friends drink	336	197	152
	(49.1)	(28.8)	(22.2)
Teachers/staff drink	512	75	98
	(74.7)	(10.9)	(14.3)
Peers drink	348	198	139
	(50.8)	(28.9)	(20.3)

Factors influencing alcohol consumption

The multivariable analysis was performed using multiple logistic regressions, including variables that showed statistically related alcohol consumption behavior from the bivariate analysis (Table 5).

The results of multiple logistic regression showed that religions were significantly associated with alcohol consumption behavior. The odds of Buddhism were 8.65 times the risk to consume alcohol more than Islam (AOR: 8.65, 95%CI: 4.41 to 16.97). There was also an association with tobacco consumption: the current smoker is associated with an increased risk of alcohol consumption (AOR: 17.9, 95%CI: 2.72 to 117.78). Interestingly, even the people who have already quit smoking are still 6.28 times more likely to consume alcohol (AOR: 6.28, 95%CI: 2.12 to 18.59). In addition, gambling can escalate the chance of drinking alcohol 6.41 times (AOR: 6.41, 95%CI: 2.09 to 19.57). Regarding the attitude, the medium-level odds were 2.56 times more likely to consume alcohol (AOR: 2.56, 95%CI: 1.53 to 4.28) than a high level. Reversely in marketing, the high and medium levels had more likely to consume

Table 5. Binary and multiple logistic regression of factors influencing alcohol consumption (n = 685)

Factors	n	% Drink	COR 95%CI	AOR 95%CI	P-value
Sex					
Female	513	33.5	Ref		
Male	172	44.2	1.62 (1.13-2.31)		0.007*
Age (years)					
< 18	13	30.8	Ref		0.050*
18-20	559	34.3	1.19 (0.96-3.92)		
>20	113	46.0	1.98 (0.57-6.82)		
Religion					
Islam	187	9.1	Ref	Ref	
Buddhism	492	46.5	8.77 (5.16-14.89)	8.65 (4.41-16.97)	<0.001**
Christianity	6	33.3	4.94 (0.84-28.98)	5.17 (0.38-69.32)	0.214
Monthly income (baht)					
<3,000	201	27.4	Ref		0.003*
3,001 – 5,000	273	37.4	1.58 (1.47-3.80)		
>5,000	122	46.7	2.36 (0.97-2.79)		
No income	89	38.2	1.64 (1.06-2.34)		
Spending					
Not enough	17	23.5	Ref		0.488
Enough	140	37.9	1.88 (0.60-5.85)		
Few Save	528	36.2	1.97 (0.61-6.38)		
Living place					
Own house	68	29.4	Ref		0.661
Dormitory	288	36.5	1.37 (0.77-2.43)		
Apartment	323	37.5	1.42 (0.80-2.52)		
Other	6	33.3	1.17 (0.19-6.94)		

Factors	n	% Drink	COR 95%CI	AOR 95%CI	P-value
Smoking					
Never	639	33.0	Ref	Ref	
Quit	32	81.3	8.66 (3.51-21.37)	6.28 (2.12-18.59)	0.001**
Smoking	14	78.6	11 (2.41-50.07)	17.90 (2.72-117.78)	0.003**
Gambling					
No	651	33.6	Ref	Ref	
Yes	34	85.3	11.25(4.29-29.48)	6.41 (2.09-19.57)	0.001**
Congenital disease					
No	619	36.0	Ref		
Yes	66	37.9	1.09 (0.64-1.84)		0.741
Knowledge level					
High level	365	37.5	Ref		0.133
Medium level	259	37.1	0.97 (0.70-1.35)		
Low level	61	24.6	0.54 (0.29-1.01)		
Attitude level					
High level	538	30.5	Ref	Ref	
Medium level	147	57.1	3.04 (2.08-4.42)	2.56 (1.53-4.28)	<0.001**
Marketing					
Low level	100	6.0	Ref	Ref	
Medium level	279	51.3	16.29(6.90-38.44)	15.15(5.49-41.78)	<0.001**
High level	306	32.4	7.63 (3.23-18.03)	5.35 (1.94-14.58)	0.001**
Self-competency					
High level	537	31.8	Ref		
Medium	148	52.0	2.27 (1.57-3.29)		<0.001*
Relative drinker					
Fathers					
No	398	23.9	Ref		
Yes	287	53.3	3.63 (2.61-5.04)		<0.001*
Mother					
No	628	32.8	Ref	Ref	
Yes	57	73.7	6.53 (3.43-12.45)	2.35 (1.07-5.16)	0.032**
Sibling/relatives					
No	385	21.6	Ref		
Yes	300	55.0	4.43 (3.17-6.19)		<0.001*
Lovers					
No	585	29.7	Ref	Ref	
Yes	100	74.0	6.60 (4.08-10.68)	3.60 (1.99-6.50)	<0.001**
Close friend					
No	320	15.3	Ref	Ref	
Yes	365	54.5	6.78 (4.69-9.80)	5.29 (3.31-8.45)	<0.001**
Teacher/staff					
No	615	33.8	Ref		
Yes	70	57.1	2.56 (1.55-4.23)		<0.001*
Peers					
No	334	21.9	Ref		
Yes	351	50.0	3.63 (2.59-5.07)		<0.001*

COR: Crude Odd Ratio, AOR: Adjusted Odd Ratio
* P-value of the binary regression (COR) significant at 0.05
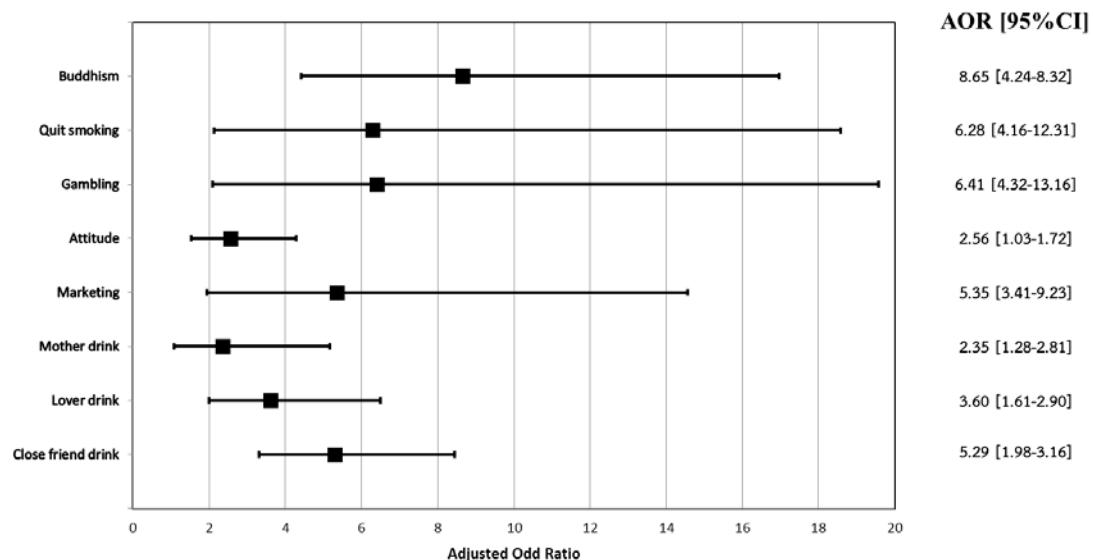** P-value of the multivariable model (AOR) significant at 0.05

Figure 1. Adjusted Odd Ratio of factors influencing alcohol consumption

alcohol than the low level with the odds were 5.35 (95%CI:1.94 to 14.58) and 15.15 (95%CI: 5.49 to 41.78) times. Students with mother drinker, lover drinker, and close friend drinker were more likely to consume alcohol compared to students without drinker (AOR: 2.35, 95%CI: 1.07 to 5.16), (AOR: 3.60, 95%CI: 1.99 to 6.50), and (AOR: 5.29, 95%CI: 3.31-8.45) respectively as shown in Table 5 and Figure 1.

DISCUSSION

Prevalence of alcohol consumption

This study sought to examine the prevalence and factors that influenced alcohol consumption of first-year students in twelve universities in Southern Thailand. We found that the current prevalence of alcohol consumption among first-year students was 36.2%. This finding shows high prevalence than the study in other countries, such as Aboagye RG., which reported a current alcohol consumption prevalence of 19.4% among tertiary students in the Hohoe Municipality of Ghana [7], and the USA reported 18.7% of alcohol consumption in the past 30 days between 1991 and 2019, among youth ages 12–20 [8]. The studies from Nigeria with the current use of alcohol was 31.1% among Nigerian university students [9]. The plausible reason for this could be the differences between sample, cultural, social, legal, and religious. In addition, approximately 44.2% of men and 33.5% of women reported consuming alcohol in the previous six months. The result was analogous to one in Thailand [10] and more than the findings from other countries' researchers [11] and [12]. The study found that 33% - 36.42% of men reported drinking alcohol, compared with only 2% - 3.73% of women. In Thailand, it is perfectly acceptable to drink alcohol for men. This is a long-established value and an alternative form of social interaction, which differs from females whose drinking alcohol is highly inappropriate behavior. It also explains why males had high current drinking rate than females. Interestingly, the average age of newcomers drinkers was 16 years; females started drinking alcohol at age ten more quickly than males at age 12. This finding contrasts with results from Romania that males begin to drink faster [13]. This could be the difference in a societal context, including parents' and friends' drinking habits, social normative ideas about alcohol use, and cultural environment influence factors, including attitudes about alcohol consumption.

Drinking pattern

The findings showed that most people preferred to drink beer 57.7%, followed by alcohol smoothies 22.2%. This finding is consistent with the report about alcohol consumption in Bangkok-Year-2015 and various studies [14] and [15]. This may be because beer is a drink that is easily accessible to students. Due to the low price, the taste and degree of alcohol are not as heavy as spirits. As well as liquor shakes with a mixture of liquor with sweetened beverages, making drinkers popular in taste and still felt that they were not drunk.

According to the results, although the students had a drinking frequency of only one to two days per week, their median drinking was three standard drinks per time (equivalent to 30 grams of pure alcohol) [16]. This amount was higher than the World Health Organization recommended that both males and females not consume more than two standard alcohol beverages per day [17]. This may be because most Thai students tend to drink only on weekends, after exams, or on essential days than to drink regularly, resulting in high drinking volumes.

Factors influencing alcohol consumption

Consistent with the previous research, religion was associated with alcohol consumption behavior [18]. The statistical significance of the first-year students showed that Buddhists consumed alcohol 8.65 times Islam. According to the religious doctrines of Muslims that alcohol consumption is prohibited in the Islamic religion.

Our findings showed very high odds of alcohol consumption among current smokers or even those already quit smoking. Other studies came to the same conclusion [19], especially in China. Drinking and smoking have been traditionally accepted and expected behaviors for Chinese men. Traditionally, men believe that giving a cigarette and drinking together can quickly bring people closer [12]. Likewise, gambling could increase your chances of drinking alcohol by 6.41 times. This shows similarity result to a study in Italy which indicated that gambling could be understood as one potential risk behavior associated with alcohol use [12]. One explanation for these concerning results could be that since gambling in some societies is illegal, so the nature of gambling often happens in places that are out of sight. In the case of students, it may be gambling at the accommodation and playing among friends only for relaxation. This situation has a high probability of drinking alcohol, thus causing such factors to influence alcohol consumption.

For more than a decade, attitude was considered a decisive factor related to alcohol drinking behavior [20] and a robust predictor of drinking behavior [21]. Our study found a strong effect on attitude toward alcohol consumption behavior. The lower attitudes were 2.56 times more likely to consume alcohol than those with a highly positive attitude. It reinforces that if attitudes can be adjusted at an individual level, alcohol consumption can be prevented or reduced. Therefore, the campaign should focus on students' understanding and adopt the right attitude.

Results from the current study are consistent with previous literature on the impact of marketing perception on alcohol consumption [22]. Our results suggested that first-year students who had moderate and high perceptions of marketing were more likely to consume alcohol than low marketing perceptions 15.15 times and 5.35 times, respectively. This may be due to the motivation for the purchase decision. Alcohol marketing may promote positive associations at an early age, encouraging social drinking [23]. According to Social Cognitive Theory, human behavior can change by observing others and witnessing the consequences of their actions [24]. Significantly, the effect of media proposes two ways of media influencing behaviors [25]. First is learned via modeling, and the other is through favorable images or perceptions of people who drink and a greater willingness to drink [22]. Therefore, students'

popularity in accessing various media, especially online media, is an important marketing channel that increases students' alcohol consumption [26].

From Table 3, the majority of students identified the most influential people in their drinking as mothers, teachers, and lovers, consistent with Figure 1 showing that students who are familiar with their mother's drinking, their lovers' drinking, and close friends' drinking are more likely to drink alcohol 2.35 times, 3.6 times, and 5.29 times respectively. Surprisingly, family drinking had a more negligible effect on students' drinking than their lovers or close friends. These results were like one study in northern Thailand [27]. One possibility to explain the findings is that most students live in dormitories that are not close to their family members. Unlike friends and couples who spend more time together, they have a higher chance of leading alcohol drinking together. In addition, it is an age that gives importance to friends quite a lot. The peer group's behavior will directly affect the acceptance of the peers or even the attitudes that may be amenable to friends or people around them, leading to the consumption of alcohol beverages.

Limitation

In this study, the sample included students from 12 Universities with an unequal portion because the sampling and data collecting method, which, although adequately represents the population sampled in this case, limits the generalizability of the findings.

CONCLUSION

In summary, first-year students show a high prevalence of alcohol consumption, both male and female. Further, beer was the most famous, and consumption per time was more elevated than World Health Organization recommended. Six factors show a high risk of alcohol consumption (religion, smoking, gambling, attitude, marketing, and peers' drinks). Our findings highlight social factors including friend's drinks and lovers' drinks, which can increase alcohol consumption drastically. These findings have implications for health initiatives aimed at college students and suggest the importance of considering attitude, marketing, and social factors to develop a concrete alcohol control policy for youth.

Conflict of interest

The Authors declare no conflict of interest.

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