

ปัจจัยที่มีความสัมพันธ์กับการดื่มสุราแบบเสี่ยงของนักเรียนอาชีวศึกษาหญิง จังหวัดศรีสะเกษ

Factors Related to Hazardous Drinking among Female Vocational Students in Sisaket Province, Thailand

นิพนธ์ต้นฉบับ

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Original Article

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Abstract

Objective: To determine the rate of hazardous drinking and its associating factors among female vocational students. **Method:** The participants were 234 female vocational students, under the office of the vocational education commission, in Sisaket province, Thailand through the cluster random sampling. Research instruments included questionnaires assessing stress, perceived self-efficacy in refusing to drink alcohol, attitude towards alcohol drinking, and family relationship, and the alcohol use disorder identification test. Data was analyzed using descriptive statistics and binary logistic regression. **Results:** The prevalence of hazardous drinking was 40.9%. The significant factors related to hazardous drinking were attitude towards alcohol drinking (adj. OR = 2.63, 95% CI = 1.47 - 4.73), age (adj. OR = 2.08, 95% CI = 1.15 - 3.74) and alcohol drinking among family members (adj. OR = 1.96, 95% CI = 1.10 - 3.50). **Conclusion:** Female vocational students had a high rate of hazardous alcohol drinking. Programs to adjust attitude toward alcohol drinking and demote alcohol drinking in the family should be implemented.

Key words: hazardous drinking; alcohol drinking; female vocational students; adolescents

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บทคัดย่อ

วัตถุประสงค์: เพื่อศึกษาอัตราการดื่มสุราแบบเสี่ยงและปัจจัยที่สัมพันธ์กับการดื่มสุราแบบเสี่ยงของนักเรียนอาชีวศึกษา **วิธีการศึกษา:** กลุ่มตัวอย่างคือนักเรียนอาชีวศึกษาหญิง สังกัดสำนักงานคณะกรรมการการอาชีวศึกษา จังหวัดศรีสะเกษ จำนวน 234 คน คัดเลือกกลุ่มตัวอย่างด้วยวิธีการสุ่มแบบกลุ่ม เครื่องมือที่ใช้ในการวิจัย ประกอบด้วยแบบสอบถามความเครียด การรับรู้สมรรถนะแห่งตนในการปฏิเสธการดื่มเครื่องดื่มแอลกอฮอล์ ทักษะคิดต่อการดื่มเครื่องดื่มแอลกอฮอล์ สัมพันธภาพกับครอบครัว และแบบประเมินปัญหาการดื่มสุรา วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนาและสถิติ Binary logistic regression **ผลการศึกษา:** กลุ่มตัวอย่างมีอัตราการดื่มสุราแบบเสี่ยง ร้อยละ 40.9 โดยพบว่าปัจจัยที่มีความสัมพันธ์กับการดื่มสุราแบบเสี่ยงอย่างมีนัยสำคัญทางสถิติ ได้แก่ ทักษะคิดต่อการดื่มเครื่องดื่มแอลกอฮอล์ (adj. OR = 2.63, 95% CI = 1.47 - 4.73), อายุ (adj. OR = 2.08, 95% CI = 1.15 - 3.74) และการดื่มเครื่องดื่มแอลกอฮอล์ของบุคคลในครอบครัว (AOR = 1.96, 95% CI = 1.10-3.50) **สรุป:** นักศึกษาอาชีวศึกษาในจังหวัดศรีสะเกษมีอัตราการดื่มสุราแบบเสี่ยงที่สูง ควรพัฒนาโปรแกรมเพื่อปรับทัศนคติต่อการดื่มแอลกอฮอล์ และการส่งเสริมการลดการดื่มในครอบครัว

คำสำคัญ: การดื่มสุราแบบเสี่ยง; การดื่มสุรา; นักเรียนอาชีวศึกษาหญิง;วัยรุ่น

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Introduction

Alcohol consumption presents a significant risk to physical and mental health, impacting not only individuals but also the economy, society, and families¹. National surveys indicate a concerning trend of increasing alcohol use among Thai adolescents (aged 15–24 years), rising from 33.9% in 2017 to 34.7% in 2019.² Specifically, among female adolescents (aged 15–19 years), prevalence increased from 3.9% in 2017 to 4.1% in 2019.³ A 2018 nationwide surveillance study of Thai secondary school students further revealed a higher lifetime alcohol consumption rate among female vocational students (52.7%) compared to their general education counterparts (40.4%).⁴ Provincial alcohol statistics for 2021 report a 7.3% prevalence of alcohol use among adolescents (aged 15–19 years) in Sisaket Province, with 1.1% of households experiencing alcohol-related family problems.⁵ The majority of

adolescents (85.4%) obtain alcohol from retail establishments, with peer residences being the most common consumption location (36.96%).⁶ These findings underscore adolescent alcohol consumption in Sisaket Province as a growing public health concern.

Hazardous drinking, defined as a pattern of alcohol use that elevates the risk of adverse consequences for both the individual and others, while remaining within a spectrum that may progress to clinical illness, constitutes a significant public health challenge.⁷ Early intervention to prevent hazardous drinking is crucial to mitigate the potential for escalation to more severe drinking behaviors and associated harms.

Previous studies identify several factors associated with hazardous drinking among female adolescents, including older age, lower academic achievement, low self-efficacy in refusing

alcohol, elevated stress levels, agree attitudes toward alcohol drinking, strained family relationships, family history of alcohol use, and parental acceptance of alcohol consumption.⁸⁻¹¹

While numerous studies in Thailand have investigated general alcohol consumption behaviors, research specifically addressing hazardous drinking as a distinct form of problematic drinking remains limited.¹²⁻¹⁴ Although Phimathai, Homsin, and Srisuriyawet⁶ examined factors related to hazardous drinking among male vocational students, research on this issue among female vocational students is particularly scarce. This gap is concerning given the significant consequences of alcohol use among young women, including increased risks of sexual harassment, early sexual activity, and unintended pregnancies. Kaewpan, Klampakorn, and Pichayapinyo¹⁵ found that adolescent females with a history of alcohol consumption were 1.6 times more likely to experience teenage pregnancy compared to their counterparts who had never consumed alcohol. This finding highlights a serious public health concern with potentially profound repercussions for families, economic stability, and social structures.

This study aims to investigate the prevalence of hazardous drinking and its contributing factors among female vocational students in Sisaket Province. The study framework is based on The Triadic Influence Theory (TTI) proposed by Flay, Snyder, and Petraitis¹⁶, which posits that adolescent health behaviors are shaped by the complex interplay of intrapersonal, cultural environment or attitudinal and social/ interpersonal influences. The findings will provide valuable insights for public health professionals, educational administrators, families, and other relevant stakeholders, informing the development of effective, targeted alcohol prevention strategies.

This study aimed to investigate the prevalence of hazardous drinking among female vocational students in Sisaket Province, and to examine the relationships between intrapersonal influence, cultural environment/ attitudinal influence, and social/ interpersonal influence with hazardous drinking among female vocational students in Sisaket Province. It was hypothesized that hazardous drinking among female vocational students was associated with a constellation of interacting factors, encompassing intrapersonal influence (age, academic achievement, stress, and alcohol refusal self-efficacy), cultural environment/ attitudinal influence (attitudes toward alcohol drinking), and social/ interpersonal influence

(family relationships, alcohol drinking among family members, and parental approval of alcohol drinking).

Conceptually, this study is grounded in The Triadic Influence Theory (TTI)¹⁶, examines the complex interplay of factors contributing to hazardous drinking among female vocational students. The TTI posits that human behavior is determined by interacting influences across three key domains: intrapersonal, cultural environment/attitudinal, and social/interpersonal. **Intrapersonal influence**, such as personality, genetics, and cognitive processes, shape self-perception and social competence. These factors powerfully influence health behavior decisions, impacting both intentions and actions, particularly through perceived self-efficacy in executing specific behaviors. **Cultural environment/ attitudinal influence**, derived from the broader socio-cultural context, shape experiences, learning, and prevailing attitudes. These influences impact knowledge, outcome expectations, and outcome valuations, ultimately shaping attitudes toward specific behaviors and subsequent intentions. **Social/interpersonal influence**, originating from an individual's immediate social milieu and learned through social interactions, significantly contribute to the perception and internalization of social norms. These factors motivate behavioral conformity, leading to the adoption of beliefs aligned with perceived norms, and ultimately influencing behavior. These interacting influences operate across different timeframes-proximal, distal, and ultimate. In this study, we rigorously investigate how these domains influence hazardous drinking within this vulnerable population. Specifically, we examine intrapersonal influence (age, academic achievement, stress, alcohol refusal self-efficacy), cultural environment/ attitudinal influence (attitudes toward alcohol drinking), and social/interpersonal influence (family relationships, alcohol drinking among family members, parental approval of alcohol drinking). We hypothesize that these interacting factors significantly contribute to hazardous drinking.

Methods

This study employs a correlational research design. The population for this study consisted of all female students enrolled in the first and second years of the Higher Vocational Certificate program (equivalent to an Associate's degree) at eight government-affiliated vocational institutions under the

Office of Vocational Education Commission in Sisaket Province, Thailand. Participants were required to be 18 years of age or older and attended regular semester courses, totaling 2,079 students.

The sample size was determined using the formula provided by Parel et al.¹⁷, yielding a sample size of 234 students. To account for potential data loss, the sample size was increased by 10%¹⁸, resulting in a target sample size of 257 students. A cluster random sampling method was employed, initially selecting four out of the eight vocational colleges to ensure representation. The sample size for each selected college was proportionally allocated based on the number of students enrolled in the Higher Vocational Certificate program (years 1 and 2), considering the different departments and varying class sizes (approximately 7-25 female students per class). Classes within each year were randomly selected until the desired sample size was reached. All female students within the selected classes were considered potential participants. Students identified as engaging in harmful use and alcohol dependent (n=23) were excluded from the study, resulting in a final sample size of 234 students for data analysis.

Research Instruments

The data collection instrument for this study was a self-administered questionnaire, comprising 78 items divided into three sections:

Section 1: Demographic Information This section gathered demographic data using seven checklist-style questions. Participants provided information regarding their age, year of study, academic achievement, father's occupation, mother's occupation, family income, and living arrangements.

Section 2: Stress and Family Relationships This section assessed stress and family relationships. Stress was measured using five rating scale items adapted from the Department of Mental Health's Stress Test 5 (ST5).¹⁹ These items assessed the frequency of specific symptoms, such as insomnia, difficulty concentrating, irritability, boredom, and social withdrawal, experienced over the past month. Response options ranged from "Regularly" to "Rarely," and scores were categorized as "Low Stress" (0-4) and "Moderate to High Stress" (5-15). Family relationships were assessed using twelve Likert scale items adapted from a family bonding questionnaire developed by Homsin and Srisuriyawet.²⁰ These

items explored perceived family bonding in terms of closeness, involvement, and acceptance with parents/guardians. Response options ranged from "Definitely True" to "Not True," and scores were categorized as "Strong Bonding" (39-48) and "Weak Bonding" (0-38).

Section 3: Alcohol Consumption Behaviors

3.1 Alcohol refusal self-efficacy was measured using fourteen Likert scale items adapted from the Drinking Refusal Self-Efficacy Questionnaire – Revised in an Adolescent sample (DRSEQ-RA) by Young et al.²¹ and translated into Thai by Hemachayat et al.²² This assessed confidence in refusing or avoiding alcohol in various situations, with response options ranging from "Very Confident" to "Not Confident at All." Scores were categorized as "High Refusal Self-Efficacy" (37-56) and "Low Refusal Self-Efficacy" (0-36).

3.2 Attitudes toward alcohol drinking were assessed using twenty-three Likert scale items adapted from a questionnaire by Homsin and Srisuriyawet.²⁰ These items explored agreement or disagreement with statements about alcohol consumption, covering knowledge/understanding, feelings, and behavior. Response options ranged from "Strongly Agree" to "Strongly Disagree," and scores were categorized as "Less accepting" (0-53) and "More accepting" (54-81).

3.3 Parental approval of alcohol drinking was assessed with one item adapted from Homsin and Srisuriyawet,²⁰ asking about perceived parental reactions (approval/disapproval) toward the respondent's alcohol use. Response options were "Disapprove" and "Approve."

3.4 Alcohol drinking among family members and drinking patterns of female vocational students were assessed with six items.

3.5 Hazardous drinking was assessed using the ten-item Alcohol Use Disorders Identification Test (AUDIT), developed by the Integrated management for alcohol intervention program.⁷ This instrument assessed drinking frequency, quantity, and related consequences, with each item scored from 0-4. Total scores ranged from 0-40, and risk levels were categorized as "Low-Risk Drinker" (0-7), "Hazardous Drinker" (8-15), "Harmful Use" (16-19), and "Alcohol Dependence" (20-40).

Instrument Quality Assessment

The data collection instrument used in this study was a pre-existing questionnaire that had undergone prior

development. Therefore, content validity was not reassessed. However, a pilot test (try-out) was conducted with 30 students exhibiting characteristics similar to the target sample. The resulting data were then analyzed to determine the instrument's reliability using Cronbach's alpha coefficient. The reliability coefficients obtained for the stress questionnaire, alcohol refusal self-efficacy questionnaire, attitudes toward alcohol drinking questionnaire, family relationship questionnaire, and the Alcohol Use Disorders Identification Test (AUDIT) questionnaire were .82, .91, .75, .80, and .98, respectively.

Protection of Participant Rights

This research was conducted with full ethical considerations and received approval from the Institutional Review Board of Ubon Ratchathani Rajabhat University (approval code HE6 6 2 0 2 2) prior to commencement. Participation in the study was entirely voluntary, with all participants providing written informed consent. Questionnaires were anonymized, ensuring that no identifying information, such as names or surnames, was collected. Data confidentiality was strictly maintained, with access to all collected data restricted solely to the researchers.

Data Collection

Data collection took place in designated classrooms on pre-arranged dates, with participants seated separately to ensure privacy. Researchers explained the study's objectives and procedures, providing detailed instructions on how to complete the questionnaire. Participants were given approximately 30 minutes to complete the questionnaire. No faculty or staff members were present in the classrooms during the data collection process. Completed questionnaires were immediately placed into sealed envelopes by the participants.

Data Analysis

Demographic data and hazardous drinking data were analyzed using descriptive statistics, including frequencies, percentages, means, and standard deviations. The relationships between the studied factors and hazardous drinking were analyzed using binary logistic regression with a 95% confidence interval for the odds ratio.

Results

The mean age of participants was 19.7 years ($SD = 0.83$), with a relatively balanced distribution between first-year (47.0 %) and second-year (53.0 %) students. The most prevalent occupations for both fathers (41.5 %) and mothers (45.7 %) were in the agricultural sector. A substantial proportion of participants (54.3 %) reported experiencing insufficient family income and associated debt, while the majority (60.7%) resided with their parents.

The overall prevalence of hazardous drinking among the participants was 40.9%. A strong preference for beer, attributed primarily to taste (69.9%), was reported by 81.1% of participants. The predominant source of alcohol acquisition was retail purchase (88.8%), and the most frequently reported location for alcohol consumption was the participant's own or a relative's residence (30.6%).

Associations between Studied Factors and Hazardous Drinking

Analysis of the associations between the studied variables and hazardous drinking revealed statistically significant relationships with the following factors, presented in descending order of effect size: attitudes toward alcohol drinking, age, and alcohol drinking among family members. Participants exhibiting agree attitudes toward alcohol drinking demonstrated a 2.6-fold increased likelihood of engaging in hazardous drinking ($AOR = 2.63$, 95% $CI = 1.47-4.73$) compared to those with disagree attitudes. Participants aged 20 years or older were 2.1 times more likely to report hazardous drinking ($AOR = 2.08$, 95% $CI = 1.15-3.74$) compared to those younger than 20. Furthermore, participants reporting alcohol drinking among family members were twice as likely to engage in hazardous drinking ($AOR = 1.96$, 95% $CI = 1.10-3.50$) compared to those without alcohol drinking among family members (Table 1).

Discussions and Conclusion

This study found a higher rate of hazardous drinking among female vocational students in Sisaket Province (40.9%) compared to the 23.4% reported by Hosiri et al.¹⁸ among secondary school students in Nan Province. Several factors may explain this difference. Our study focused on vocational students, a group potentially exhibiting distinct risk profiles compared to the general student populations.

Table 1 Proportions and adjusted odds ratios of various factors associated with hazardous drinking (N = 234).

Factors	N, % by Hazardous Drinking				Adjusted OR	95% CI
	No (n = 129)		Yes (n = 105)			
Age						
< 20 years ^(R)	62	65.3	33	34.7		
≥ 20 years	67	48.2	72	51.8	2.08*	1.15-3.74
Academic Achievement (Grade Point Average, GPA)						
> 3.50 ^(R)	65	58.0	47	42.0		
≤ 3.50	64	52.5	58	47.5	1.27	0.71-2.27
Alcohol Refusal Self-Efficacy						
High ^(R) (37-56 points)	76	63.9	43	36.1		
Low (0-36 points)	53	46.1	62	53.9	1.67	0.94-2.97
M = 37.4; Median = 37.0; SD = 9.57						
Stress level						
Low Stress ^(R) (0-4 points)	56	65.1	30	34.9		
Moderate to High Stress (5-15 points)	73	49.3	75	50.7	1.37	0.74-2.54
Attitudes Toward Alcohol drinking						
Disagree ^(R) (0-53 points)	79	69.3	35	30.7		
Agree (54-81 points)	50	41.7	70	58.3	2.63**	1.47-4.73
M = 52.7; Median = 54.0; SD = 7.90						
Family Relationships						
Strong Bonding ^(R) (39-48 points)	75	61.5	47	38.5		
Weak Bonding (0-38 points)	54	48.2	58	51.8	1.40	0.79-2.51
M = 38.5; Median = 39.0; SD = 5.33						
Alcohol drinking among family members						
No ^(R)	64	66.0	33	34.0		
Yes	65	47.4	72	52.6	1.96*	1.10-3.50
Parental approval of alcohol drinking						
Disapprove ^(R)	58	61.1	37	38.9		
Approve	71	51.1	68	48.9	1.11	0.61-2.02

Note: * Statistical significance at P-value < 0.05, ** Statistical significance at P-value < 0.01, ^(R) = Reference group.

Furthermore, our participants were older, increasing their opportunities and experiences with risky behaviors. The unique socio-cultural context of Sisaket Province, with its diverse ethnic groups (Lao, Kui, Khmer, and Yeu) and long-standing traditions involving alcohol (e.g., San Don Ta ceremony, various merit-making festivals), may also contribute. The normalization of alcohol use through these cultural practices and its visibility in adult behavior, particularly within families, could influence adolescent drinking.²³

Regarding the factors associated with hazardous drinking among the female vocational students in Sisaket Province, our study identified significant associations between hazardous drinking and three factors: attitudes toward alcohol drinking, age, and alcohol drinking among family members.

Attitudes toward behavior, a cultural environmental/ attitudinal influence, are shaped by cultural contexts, such as societal beliefs and values. These factors influence information processing, experiences, and outcome valuations, shaping individual attitudes toward specific behaviors and subsequent decisions. As a proximal influence, attitudes can directly and substantially impact behavioral decisions.¹⁶ Consistent with Grigsby et al.¹⁰, adolescents with positive attitudes toward alcohol drinking were more likely to

engage in hazardous drinking than those with negative attitudes.

Age, an intrapersonal influence, is considered an ultimate influence, representing a relatively uncontrollable factor that can indirectly contribute to substance use risk over time.¹⁶ Older adolescents, having accumulated more experiences related to risky behaviors, are more likely to engage in hazardous drinking. This finding aligns with research conducted among university students in Ireland by Davoren et al.⁹ and among secondary school students in Italy by Addolorato et al..²⁴

Alcohol drinking among family members, a social/interpersonal influence, indirectly affects behavior.¹⁶ Alcohol drinking among family members can shape adolescent drinking behaviors.²⁻⁵ Consistent with this, adolescents with family members who consume alcohol were more likely to engage in hazardous drinking than those without family alcohol use. This finding is consistent with studies conducted among adolescents in Brazil by Conegundes et al.⁸ and in Nan Province, Thailand, by Hosiri et al..¹⁸

Based on the findings of this study, the following recommendations are made. Attitude Adjustment: Activities or programs should be implemented to promote accurate attitudes toward alcohol consumption among adolescents, emphasizing the negative consequences of alcohol use in both the short and long term. Monitoring and Counseling: Monitoring and counseling should be provided to older adolescents, particularly female vocational students aged 20 and above, to prevent hazardous drinking. Family-Based Interventions: Educational campaigns should be conducted to inform families about the influence of family alcohol use on adolescent drinking behavior, and families should be encouraged to play a role in preventing alcohol consumption among their children. Further Research: Future research should be conducted on other adolescent populations, such as those in upper secondary school and higher education, to obtain more comprehensive data that can be used to develop more effective prevention strategies.

Future research should investigate the complex interplay of risk and protective factors associated with hazardous drinking across diverse adolescent populations, including those in upper secondary school, higher education, out-of-school youth, and vulnerable populations such as homeless youth. Exploring contextual variations in influencing factors is crucial for developing tailored interventions. Furthermore, a

comprehensive understanding of protective factors, such as social competence, resilience, and decision-making skills, is essential to inform holistic prevention strategies. Longitudinal research designs are strongly recommended to elucidate the causal pathways linking risk and protective factors to hazardous drinking trajectories. Finally, rigorous evaluation of the efficacy of prevention programs targeting attitude modification and other relevant constructs is necessary to optimize intervention strategies.

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