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การดื่ม - ขับขี่ของนักศึกษาชายในจังหวัดขอนแก่น

Drink-riding Among Male Student Motorcyclists in Khon Kaen, Thailand

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บทคัดย่อ

การศึกษาวิจัยเพื่อหาปัจจัยต่างๆของนักศึกษาชาย อายุระหว่าง 15 - 25 ปี ที่ขับขี่จักรยานยนต์หลังการดื่มเหล้า โดยใช้วิธีวิจัยเชิงคุณภาพและเชิงปริมาณ ซึ่งอาศัยการสนทนากลุ่ม การสัมภาษณ์นักศึกษาชายที่ขับขี่จักรยานยนต์และดื่มเหล้าในบางครั้ง โดยการสุ่มเลือกนักศึกษาชาย 191 คน ใน 9 สถานศึกษาของจังหวัดขอนแก่น และการวัดระดับแอลกอฮอล์ในเลือดของนักศึกษาชายที่ขับขี่จักรยานยนต์จำนวน 37 คน ผลการศึกษาพบว่า เหล้ามีราคาถูก หาซื้อได้ง่าย และมีจำหน่ายทั่วไปในสังคมไทย อีกทั้งผู้ใช้รถใช้ถนนมักไม่ปฏิบัติตามกฎจราจร รวมทั้งความไม่เอาใจใส่ในการรักษากฎหมาย จากการสัมภาษณ์พบว่า ร้อยละ 94 ของนักศึกษาที่ถูกสัมภาษณ์ไม่เข้าใจถึงผลของเหล้าต่อการเปลี่ยนแปลงพฤติกรรม ร้อยละ 50 มีความเข้าใจที่ไม่ถูกต้องเกี่ยวกับความปลอดภัยของการขับขี่และปริมาณเหล้าที่ดื่ม (ความเสี่ยงสัมพัทธ์ = 3.06) นักศึกษาร้อยละ 59 ยอมรับว่าเพื่อนฝูงมีอิทธิพลต่อการดื่มเหล้า และร้อยละ 88 ชอบที่จะให้เพื่อนชักชวนและสนับสนุนในการดื่มเหล้า และมีจำนวนมากบอกว่าดื่มเหล้าเพื่อการแสดงออก สำหรับการทดสอบลมหายใจพบว่า ร้อยละ 22 ของนักศึกษาที่ขับขี่รถจักรยานยนต์ มีระดับแอลกอฮอล์ในเลือดมากกว่า 0.08 กรัมเปอร์เซ็นต์

โดยสรุปของการศึกษาวิจัยพบว่า นักศึกษาที่ดื่มขับขี่มีทั่วไป และชุมชนก็ไม่ใส่ใจในปัญหานี้เท่าที่ควร ทั้งนี้ อาจเป็นเพราะไม่มีการจัดลำดับความสำคัญของปัญหา นักศึกษาไม่ตระหนักถึงผลกระทบของการดื่มเหล้า การแก้ไข ควรใช้มาตรการทางกฎหมายบังคับ และเพิ่มความระมัดระวังให้มากขึ้นในกลุ่มนักศึกษาและกลุ่มวัยแรงงาน

ABSTRACT

The study utilized a mix of qualitative and quantitative research methods to determine factors that influence 15-25 year old male tertiary students to ride a motorcycle after drinking alcohol. Focus group discussions explored cultural contexts surrounding alcohol use and motorcycle riding. A structured questionnaire was developed following analysis of these discussions which focused on perceptions, attitudes and reported practice of drink-riding. The questionnaire was administered to male tertiary students (n=191) who ride motorcycles and sometimes drink alcohol. Questionnaire respondents were selected by systematic cluster random sampling from 9 tertiary institutions in Khon Kaen. Structured non-participant observations of traffic situations and the public use of alcohol in Khon Kaen describe aspects of the social environment influencing student motorcyclists. Alcohol breath analysis was performed on student motorcycle rider volunteers (n=37) outside selected drinking venues. Observations established alcohol was cheap, available and pervasively used within Thai male society. There is serious and general disregard of traffic regulations together with inconsistent enforcement of traffic regulations. Almost all (94%) questionnaire respondents incorrectly perceive the physiological effects of alcohol can be overcome by behavioural strategies. Half (50%) have inaccurate perception of safe quantities of alcohol, and this inaccurate perception is associated with drink-riding (relative risk = 3.06). Respondents (59%) are encouraged to drink to excess by peers, and consider it likely that peers (88%), and a high percentage of male authority figures, drink-ride. 24% of respondents commonly drink-ride. 22% of student riders recorded blood alcohol concentrations > 0.08 gm% on volunteer breath analysis. The study concluded that student drink-riding is widespread and not prioritized by the community as a problem. Allied to this is a lack of prioritisation of the problem by law enforcers. Students lack information about the impact of alcohol. Interventions need to focus on targeted awareness raising in student group and working towards effective law and enforcement.

INTRODUCTION

Thai health statistics for 1991 indicated the mortality rate from traffic accidents of 34 per 100,000 population was only exceeded by deaths from heart disease of 40 per 100,000. Both morbidity and mortality associated with traffic accidents is clustered around the 15-25 years age group, with males experiencing higher rates than females. Chadbunchachai et al.[1,2] indicated motorcycle injuries in young men were the predominant form of traffic related injury. Moreover, approximately 40% of the motorcycle accidents occurred in a rider who had consumed alcohol. Student and the employee were the most numerous occupational categories having motorcycle accidents. By the high risk category for traffic accidents, the objectives ofour study were:- (1) to identify knowledge, attitudes and practice towards road safety amongst a cross section of male tertiary student motorcyclists 15-25 years of age, (2) to describe patterns of public behaviour influencing male tertiary student motorcyclists 15-25 years of

age related to alcohol, compliance with road regulations and (3) to describe some social factors acting on male tertiary student motorcyclists which affect riding practices.

METHODOLOGY

This study combines both qualitative and quantitative research methods which consist of:-

1. Focus Group Discussions

Information gained from 4 focus groups was used as a culturally relevant foundation for the questionnaire and to identify drinking observation and breathalyser study sites. Focus groups one and two comprised male tertiary students within the study target age group range. Focus group three comprised a sample of older persons residingin a commuter village close to Khon Kaen. The final focus group comprised male wage labourers within the study target age range. Within each focus group participants shared common characteristics and backgrounds. However, focus groups three and four were constructed to explore opinions and beliefs which may differ markedly from student perspectives.

2. Questionnaires, Survey of Randomly Selected Students

. The questionnaire on drinking and riding was administerred to 191 respodents. The target population was male tertiary students of 8 colleges and 1 University in Khon Kaen Municipality, aged 15-25 years who sometimes drank alcohol and who ride a motorcycle. Each of the 9 tertiary institutions of Khon Kaen was considered a strata and the sample size for each strata was proportional to size.

3. The Breathalyser Study

The general method was to take a breathalyser reading from, and administer a questionnaire to a sample of volunteer male motorcyclists. The breathalyser is an instrument for measuring breath alcohol and gives a reading of blood alcohol concentration (BAC). The instrument used was the Lion Ld-2 Alcometer portable preliminary breath testing device. Six venues, pub, restaurant, disco, late night bar and night picnicarea, were chosen as study sites as they were popular drinking places for young male motorcyclists. The observation times chosen, varying between 21.00-03.00 hours, were when the venues were busiest, and included the closing time of 02.00 hours. The observation days, Thursday, Friday and Saturday, were chosen as they are the busiest drinking night with the most accidents. The target group was males, volunteers, aged 15-25 years inclusive, who had ridden a motorcycle to the venue and had been drinking alcohol.

4. Non-participant Observation at Drinking Venues.

A structured observation protocol was developed to describe factors influencing the public consumption of alcohol in Khon Kaen and record information about motorcycle riding pratices of people who had been observed to publicly drink alcohol. Observations were made from a pub, a pub parking lot, a disco, a snooker hall, a restaurant and alake side picnic venue.

5. Non-participant Observation of Traffic Situations

The general method of observation was for the observer to choose two or three specific activities and choose a site where they would commonly occur.

6. Feedback Interviews with Selected Authorities

The aim of this qualitative research methodology was to record theopinions of

selected authority figures, from three tertiary institution, representative of the Integrated Regional Trauma Service and an authority within the Khon Kaen Traffic Police Force, about some of the results of our studies and canvass their opinion on any feasible counter-measures to address the problem of student drink riding.

RESULTS

1. Social Norms for Traffic Behaviour in Khon Kaen Municipality

Student focus groups stated speeding (whether drunk or sober), carelessness and poor knowledge of traffic rules and poor driving skills were common causes of motorcycle accidents. We found many roadrules ignored by all forms of traffic in Khon Kaen. Furthermore, road rule infringements commonly accepted by police and motorists. It is common to see motorcyclists riding up streets in the wrongdirection, overtaking on either side, turning in front of oncomingtraffic at green lights, and failing to signal intention to turn. Many young riders, obviously less than the legal age of 15 years, were observed riding motorcycles. Motorcycles commonly carry morethan one pillion. Motorcycle riders illegally modify their motorcycles by removing both rear vision mirrors, or changing engine capacity or exhaust systems. Only 10% of motorcyclists were observed to wear helmets. None were observed to wear other forms of protective clothing. Pedestrians hesitate at traffic light controlled intersections and Z-crossings, while other road users ignore their right of way. Passengers disembarking from the rear of buses commonly cross into oncoming traffic.

2. Social Norms for Drinking Alcohol in Khon Kaen

During focus group discussions, students identified several types ofdrinking venues they commonly frequent. We observed public behaviour of patrons at different venues.

'Pubs' provide live music entertainment and trade between 21:00 and 02:00 h. Patrons commonly order half bottles of Thai red whiskey with soda, water and ice, serve themselves alcohol. Pubs become rowdy places towards the end of an evening as patrons sing along with the music, applaud songs, and dance by table sides. Behaviour becomes increasingly uninhibited with increasing volumes of alcohol consumed.

'Restaurants' emphasise food and beverage service. Peak partronage isusually between 19:30 and 21:30. Alcohol is most commonly sold by the bottle, with patrons permitted to take unconsumed alcohol away from the restaurant and permitted to bring to the restaurant. Patron behaviour is subdued in restaurants without live singing, but more raucous and uninhibited in restaurants with singers.

'Cafes' place special emphasis on food. Alcohol is purchased from the cafe, or provided by the nearby stall or shop. Thai red wiskey and beer are commonly ordered. Patrons serve themselves and seldom stay longer than one hour. Behaviour is generally subdued.

'Discosé' emphasise dancing, music and alcohol. Patron behaviour centres around dancing. Behaviour becomes less inhibited and more boisterous during the course of the evening.

'Picnics' are a common Thai social custom. Picnickers purchase theirown alcohol

away from the picnic site at retail prices, or purchase alcohol from stall holders close by the picnic site. The behaviour of picnickers is influenced by group composition, ages, gender mix, amounts of alcohol consumed, presence of music, time of the day and day of the week.

'Home' drinking occurs, but was not assessed.

3. Questionnaire and Breathalyser Study

The data of the student respondents and breath analysis volunteers is displayed in Table 1.

3.1 Behaviour of the Target Group-Drinking

The alcohol types most commonly drunk by the students are: Thai red whisky (Mekong is the trade mark), 74.3% Thai white spirit (Low Kow is the trade mark), 15.7%, Beer 8.9% and other 1%. When the strongerspirits are preferred, the mean rates of consumption of pure alcohol and the total consumption per occasion are 2-3 times higher than forbeer. One probable reason for this preferance for strong spirits is cost. From the breath analysis study, the mean blood alcohol concentration for students was 0.06 gm%. Twenty-two percent had a BAC >0.08 gm%. Although this shows a significant proportion of students had been drinking at an unsafe level, the biased nature of the study underestimates the problem. The very drunk did not volunteer.

3.2 Behaviour of Target Group Drink-Riding

Sixty percent of questionnaire respondents reported motorcycle accidents for which they were responsible (including solo accidents). Thirty five percent of these students drank alcohol prior to one ormore of these accidents. Twenty four percent of students are likelyto be commonly riding at a level of BAC > 0.08 gm% (the proposed new Thai limit). Heavy drinkers were 2.36 times more likely to drink ride than more moderate drinkers ($p < 0.01$).

3.3 Law and Enforcement

During 1992 traffic police prosecuted six persons for drink-riding. Prosecutions

Table 1 Characteristics of questionnaire and breathalyser sample respondents.

Characteristics	Questionnaire Study	Breathalyser Study
Profession	191 Students	37 Students, 37 others
Age Range	16-25 Years	16-24 yrs Students (<18 yrs, n=9) 15-25 yrs Others (<18 yrs, n=1)
Education Level	33% Bachelor Level 67% Diploma Level	- -

for drink-riding are rarely undertaken because of difficulties in presenting evidence. Observation of traffic conditions revealed that the police seemed ineffective in enforcing the roadrules. The traffic licensing branch of the Transport Department estimated that 70% of drivers were unlicensed. Therefore many ridersunlikely to know road rules. Sixty percent of students have never had their knowledge of the traffic code assessed (i.e. were unlicensed orbought the licence). Eighty six percent started to ride motorcyclesbefore the legal age of 15 years: on average, at 13 years of age.

3.4 The Influence of Male Roles on Drinking and Drink-Riding

Students were asked about the example set for them by other males intheir community. They thought the following were likely to driveafter drinking alcohol (sufficient to raise the BAC to 0.05 gm% or higher) (see Table 2).

Students were asked to assess the influence of their peers upon their drinking. Sixty percent reported peers encourage them to drink more. Furthermore, about half the students said they would drink more alcohol if a host ordered more, despite feeling they had already had enough to drink. Heavy drinkers were significantly associated with drinking further with host pressure ($p<0.001$, RR = 5.70). All respondents felt responsibility to help a drunk companion homesafely. Seventy seven percent said they would do this by leaving one motorcycle temporarily, and taking the friend home as a pillion. Observation studies confirmed that an obviously drunk companion become a single pillion or was sandwiched between the rider and the third pillion. However it was also observed on occasions that a less drunk youth would ride along side his friend, aiming at controlling the speed of his companion.

3.5 Perception of Alcohol Impact and Accident Risk

Respondents were asked how much they thought they could safely drink and then ride (Table 3). Those who overestimate the quantity that can be drunk safely are significantly more likely to drink-ride.

Among our respondents, 13% (26) perceived no change in their accident risk with

Table 2 Percentage of questionnaire respondents who thought other male figures would ride after drinking, Khon Kaen, 1993.

Person Likely to Drink-Ride	Percent of Respondents
Father	48% - Yes
Uncle	45% - Yes
Best friend	79% - Yes
Peers	88% - Yes
Male teacher	58% - Yes
Police	64% - Yes

drinking alcohol. Those who perceive no change in accident risk after drinking alcohol are significantly more likely to drink ride (Chi square = 8.73, p = 0.01) (Table 4).

The poor perception of young men was confirmed in the breath analysis study whereby; 100% of participants with BAC > 0.08% thought they were safe to drive home and 83% intended to drink further before going home.

DISCUSSION

Breathalyser Study

The sampling method applied in the breathalyser study yielded biased results. The sample included only volunteers for testing. Relying on volunteers biased results in favour of the interested. Persons observed to be very drunk did not volunteer, even though they met all other inclusion criteria. Results

Table 3 Relationships between perception of safe quantity of alcoholand likelihood to drink-ride.

Perception Safe Quantity	Drink-Riding		n
	likely	unlikely	
inaccurate	35% (33)	65% (62)	95
accurate	13% (12)	88% (84)	96
total	24% (45)	77% (146)	191
results of analysis	Chi square = 10.21, d.f.=1, p = < 0.002 RR = 3.06, CI = 1.52 < RR < 6.15		

Table 4 Relationship between the perception of the effect of alcoholon accident risk and likelihood of drink-ride.

Perception Safe Quantity	Drink-Riding		n
	likely	unlikely	
no change in risk	46% (12)	54% (14)	26
slightly increased change in risk	22% (17)	78% (62)	79
greatly increased change in risk	19% (16)	81% (70)	86
Total	24% (45)	76% (146)	191

from the breathalyser study underestimate the extent of the problem of youthful male drink-riding in Khon Kaen.

Social Norms Relating to Alcohol Drinking and Drink Riding

Alcohol is readily available and commonly used in Khon Kaen society. The cost depends on the type of venue. However; even the most financially constrained can afford strong alcohol in a home or picnics situation. The public sue of alcohol appears a pervasive aspect of Thai male social interaction.

Despite evidence drink-riding amongst young male student motorcyclists is a problem, there is doubt the wider Khon Kaen community consider it to be a high priority. If this is true, the types of intervention indicated would be those that raise community awareness of the seriousness of the problem[3]. An integration of efforts from various departments (health, traffic police and education) is essential for maximal effect. A periodic presentation of the Khon Kaen Trauma Register data to the public and authorities would be a good first step. Support for student action groups such asthe one already formed in the Khon kaen University would enable peer influence to be used in a positive direction.

Perception and Knowledge

Safe Quantities

In Thailand, the code of the road is soon to change from a simple rule based upon perception i.e. do not drive when drunk, to a new rule that will specify a BAC of 0.08 gm% as the legal limit. However alegal BAC limit cannot logically be put in place unaccompanied byknowledge of safe quantities. If the proposed legal limit BAC is to go ahead, safe quantities will need to be determined. Safe quantitiesneed to be based upon experimentation with drinking Thai beverages under controlled conditions. As well, appropriate vehicles for the dissemination of the safe quantity information would need to be chosen. These could include school curricula, mass media, and labelson bottles advising safe quantities.

Accident Risk

The questionnaire found that those who underestimate the impact ofalcohol on accident risk were significantly more likely to drink-ride. This gives some support to the notion that at least a category of malestudents inaccurately perceive the effects of alcohol on accidentrisk. To address inaccurate risk perception school targeted and mass media education could give information on the physiological effects of alcohol on riding skills. However this information could not beexpected to alter sensation seeking behaviour.

The Influences on Behaviour of Young Men by Peers and Parents

Eighty eight percent of respondents considered it likely their peersride after drinking alcohol. All respondents said they would take responsibility for helping an obviously drunk companion home safely. However, they may not consider lower levels of intoxication asimportant. In a society such as Thailand's, where social drinking is deep rooted, compromise may still be possible between peers, to enable safer riding practices. One possible message would be forfriends to alternate, who will be the rider. The rider must drinksafely. Such messages would need to be propagated in schools and

viamass media.

In regard to parental influence, although close to half therespondents considered it likely their father would ride after drinking, the idea of family sanctions having a role in this problem needs further investigation.

Law and Enforcement

Any attempt to enforce behavioural change through coercive strategies (laws and enforcement) relies upon society agreeing to the law andcertainty of enforcement and punishment for offenders. Focus groups and several key informants expressed reservation about police abilityto enforce certain civil laws. Sixty four percent of student respondents considered it likely that the police also drink and ride.

While the Khon Kaen police favour the institution of an random breath test (RBT) program, their inconsistent approach to current road rule enforcement suggests a tremendous effort in police training, time, and money would need to be spent if an RBT program was to be instituted in any effective way. Police authorities need to realise the value of RBT lies in deterrence, and not in simple detection and fining.

RBT program also requires a change of societal norms such that drink-driving is considered a crime by society. Presently this is not the case as evidenced by the prevalence of the practice.

Distribution and Sales of Alcoholic Beverages

Heavier drinking is encouraged and exacerbated by cultural server practices such as continual topping up of guests' glasses and by thesale of alcohol in bottles as opposed to individual measures. Furthermore, the strongest Thai alcohol (40% by volume) is the cheapest. Yet, in terms of alcohol consumption rate, students who drank beer did so at a much safer rate than spirit drinkers.

If the Thai Government was to change the alcohol tax structure, thereby encouraging consumption of lower alcoholic beverages overhigher concentration alcoholic beverages, it is possible drink-riding and alcohol related accidents would be reduce. However, several authority informants considered that much political lobbying would be needed before such logical changes in the alcohol excise could occur.

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