Consequences and Associated Factors of Youth Gambling

Suporn Apinuntavech MD*,

Chukiat Viwatwongkasem PhD**, Mathuros Tipayamongkholgul PhD*** Wit Wichaidit MSc***, Rassamee Sangthong MD, PhD****

* Division of Child and Adolescent Psychiatry, Department of Psychiatry, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand

** Department of Biostatistics, Faculty of Public Health, Mahidol University, Bangkok, Thailand

*** Department of Epidemiology, Faculty of Public Health, Mahidol University, Bangkok, Thailand

**** Epidemiology Unit, Faculty of Medicine, Prince of Songkla University, Songkhla, Thailand

Objective: To examine gambling behaviors, consequences and its associated factors among Thai youths. **Material and Method:** A cross-sectional survey of 1,694 students from Matthayom 1 (grade 7) to university undergraduate level was conducted using a self-administered questionnaire. Questionnaire items consisted of socio-economic characteristics, health behaviors, attitudes towards gambling and consequences of gambling. Factors associated with gambling experience were identified by multivariate logistic regression.

Results: Approximately 20% of youth gambling was reported. Gamblers had higher proportion of males, studying in vocational schools and lower GPA and history of smoking and alcohol consumption. Card games were the most common type of gambling, followed by football-betting. Approximately 10% of the gamblers potentially had pathological gambling. Factors positively associated with gambling included having friends (adjusted OR = 4.82) and relatives (adjusted OR = 2.48) who gambled. Having a GPA \geq 3.0 was negatively associated with gambling (adjusted OR = 0.58). The present study reported negative consequences of gambling including feeling of guilt, perception of poorer health and depression or insomnia after losing.

Conclusion: Gambling prevention program should be developed and focused on student with poor study performance and wrecked relationships in family. Also, a surveillance system for health risk behaviors among youth in school and community should be established by the participation of multiple organizations.

Keywords: Gamble, Pathological gambling, Youth, Consequence

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Youth gambling has become a major concern in Thailand and there is an increasing trend of youth gambling worldwide. A study in Macao reported the major consequences of gambling were family quarrels, (54.7%), being in debt, (52%) and losing job $(32.2\%)^{(1)}$. In 1900s, a study in USA reported the prevalence of student gambling increased from 45% to 65% within 10 years⁽²⁾. Although many prevalence studies have been conducted, the definition and measurement of gambling are inconsistent.

Children and youth gambling may lead to various psycho-social consequences during adulthood⁽³⁾. Previous studies, mostly conducted in developed countries⁽³⁻⁸⁾, have reported a significant

problem of youth gambling. A study in american adolescents found more than one-thirds gambled for the first time at less than 11 years of age⁽³⁾. Another study at a public university in the United States found that almost 60% of undergraduate students gambled 3 times per month, whereas 65% of gamblers indicated that they gambled for entertainment while 30% said that they gambled to win⁽⁴⁾. Studies in North America reported that the prevalence of pathological gambling in adolescents was 2-4 times higher than in adults⁽⁹⁾, and the risk of severe problems from gambling among youths age 18-24 years was 2-4 times higher than in adults⁽¹⁰⁾. People of East Asia/Asia-Pacific origin were found to have higher intensity of gambling problem^(1,11) and many of these oriental pathological gamblers were found to have gambled during their youth⁽¹²⁾.

It is likely that youths in Thailand fall into this risk group. Previous study reported that 74% of the Thai population have gambled, with the lifetime

Correspondence to:

Tipayamongkholgul M, Department of Epidemiology, Faculty of Public Health, Mahidol University Bangkok 10400, Thailand. Phone: 0-2354-8563 E-mail: phmty@mahidol.ac.th

prevalence of 48% among adolescents aged 15-22 years. It was estimated that Thailand had 26 million gamblers, 1.9 million among whom were less than 24 years of $age^{(13)}$. Most common forms of gaming during the previous 6 months was state lottery (64.4%), followed by underground lottery (61.3%), casino gambling (9.3%) and football betting (4.9%)⁽¹⁵⁾.

Understanding of risk factors and consequences of youth gambling can be useful for prevention and control program yet there is only a limited number of studies in developing countries, including Thailand, where policy on youth gambling is still lacking. The present study aims to examing gambling behaviors, consequences and its associated factors among Thai youths.

Material and Method

A cross-sectional survey was conducted in Bangkok metropolitan area among youths in the educational system during May to August 2005. Sample size was estimated to be at least 1,540 students, based on the gambling prevalence of 20%⁽¹³⁾ with 2% precision. In order to achieve the representativeness of youth in educational system, the present study applied multistage sampling to a select study sample from four types of educational systems *i.e.* general education (secondary for grade 7-12), vocational high school (equivalent to grade 10-12), higher vocational diploma (equivalent to year 1-2 of university) and university year 1-4. Sampling began with selecting one school from each type of educational system. Secondly, a classroom was randomly selected from each school. Finally, all students in selected classroom were enrolled in the present study.

Gambling in the present study was defined as any types of betting which involved any amount of money or possession being given to the other person who won the bet. The developed questionnaire related to gambling consisted of three main parts. The first part contained 16 questions on baseline socio-economic characteristics of the respondents and their families as well as health behaviors such as smoking, consumption of alcohol and energy drinks and participation in sports. The second part consisted of 20 questions about attitudes towards gambling. The third part contained 20 questions on consequences of gambling based on DSM IV-TR criteria for gamblers⁽¹⁴⁾ and 11 questions on gambling activities of the students, their friends, their parents, their relatives, gambling places and relationship with their family. The developed questionnaire was tested for face and construct validity by one behavioralist and two child and adolescent psychiatrists. Internal consistency of the test was examined and yielded a high test result (Cronbach's alfa coefficient = 0.75).

The researcher initially contacted the school principal and the guidance teacher for permission to collect data on campus during guidance counseling class. After the researcher clearly explained the details of the present study to the guidance teacher, a selfresponded questionnaire was given to each student either by the researcher or the guidance teacher. Parental consent was required for participants who were less than 18 years of age. Completion of each questionnaire required approximately 15 minutes. Each questionnaire was anonymous and was put into an opaguesealed envelope before being collected into an opaque box. All information was kept confidential.

The present study's ethical considerations were approved by the Ethical Committee for Research in Human Subjects at the Faculty of Public Health, Mahidol University.

Gambling status was classified into nevergambled and gambler which was anyonewho had participated in gambling at least once in their life. Attitudes towards gambling were measured by a rating scale from 1-3 ranging from minimally agree, moderatly agree and strongly agree, respectively. The total score (60 points) were categorized into three group: < 30 points refers to antagonistic, 31-42 points refers to neutral and > 42 points refer to supportive attitudes towards gamblig. Descriptive statistics were used to examine baseline characteristics, gambling-related context between never-gamblers and gamblers and consequences of the gambling played among gamblers. Student t-test and Chi-square test were used to compare continuous variables and discrete variables, respectively, between never-gamblers and ever-gamblers. Multivariate logistic regression was used to examine factors associated with gambling. R software version 2.12.1 and Epicalc package were used for data analysis(15).

Results

Due to proactive support from the guidance teachers, all students completed the questionnaire. Eventually 1,694 students were recruited, most of whom were female (70%) with an average age of 16.8 years old (SD = 2.7 years). Approximately 80% of their parents had education below university level and 80% of the families had adequate income for living. More than half of students (65%) stayed with either their mother or

father, or both and had an average weekly allowance of THB 658.2 (USS22).

between never-gamblers and gamblers was shown in Table 1. Higher proportion of male students was found in the gamblers group. Almost half of gamblers were in

Table 1. Characteristics of the Respondents (n = 1,694) by Gambling Status

Comparison of baseline characteristics

Characteristics	Never-Gambled (n = 1,346) (79.5%)	Gambled (n = 348) (20.5%)	p-value
Gender (% female)	968 (71.9%)	217 (62.4%)	0.0007
Age (Mean \pm SD)	16.65 ± 2.742	17.2 ± 2.448	0.0003
Education Level (%)			
Gen. Ed., Lower Secondary (Grade 7-9)	403 (29.9%)	50 (14.4%)	< 0.0001
Gen. Ed., Upper Secondary (Grade 10-12)	247 (18.4%)	51 (14.7%)	
Vocational High School (Grade 10-12)	302 (22.4%)	147 (42.2%)	
High Voc. Diploma. (UG 1-2)	161 (12.0%)	28 (8.0%)	
University (UG 1-4)	233 (17.3%)	72 (20.7%)	
GPA of Last Semester	2.9 ± 0.6	2.7 <u>+</u> 0.7	< 0.0001
Family in financial difficulty/debt (%)	250 (18.7%)	100 (29.1%)	< 0.0001
Monthly Allowance in THB (Mean \pm SD)	2,679 <u>+</u> 1,602.183	3,184 <u>+</u> 2,229.43	0.0001
Household Status (%)			
Living with both parents	681 (50.6%)	159 (45.7%)	0.3498
Living with one parent	206 (15.3%)	57 (16.4%)	
Living with others	378 (28.1%)	105 (30.2%)	
Living alone	81 (6.0%)	27 (7.8%)	
Number of Siblings (Mean \pm SD)	2.3 ± 1.1	2.4 ± 1.1	0.4834
Paternal Education			
No formal education	17 (1.3%)	6 (1.8%)	0.0013
primary school	522 (39.6%)	131 (38.6%)	
Secondary School	324 (24.6%)	119 (35.1%)	
Associate's Degree	148 (11.2%)	26 (7.7%)	
Bachelor's Degree	228 (17.3%)	43 (12.7%)	
Postgraduate Degree	78 (5.9%)	14 (4.1%)	
Paternal Occupation			
White-collar profession	662 (49.7%)	165 (48.5%)	0.4274
(own business/civil service/employee)			
Blue-collar profession (worker/farmer)	558 (41.9%)	148 (43.5%)	
Homemaker/deceased	112 (8.4%)	27 (7.9%)	
Maternal Education		14 (4 10)	0.0405
No formal education	38 (2.9%)	14 (4.1%)	0.2437
Primary school	631 (47.6%)	173 (50.7%)	
Secondary School	286 (21.6%)	77 (22.6%)	
Associate's Degree	124 (9.3%)	32 (9.4%)	
Bachelor's Degree	204 (15.4%)	37 (10.9%)	
Postgraduate Degree	44 (3.3%)	8 (2.3%)	
Maternal Occupation	471 (25.00())	106 (20, 60)	0.0420
White-collar profession	4/1 (35.2%)	106 (30.6%)	0.2430
(own business/civil service/employee)		176 (50.000)	
Blue-collar profession (worker/farmer)	621 (46.4%)	1/6 (50.9%)	
Homemaker/deceased	245 (18.5%)	04 (18.5%)	< 0.0001
Ever smoked (%)	113 (8.4%)	119 (34.4%)	< 0.0001
Ever consumed alcohol (%)	663 (49.3%)	2/4 (79.4%)	< 0.0001
Ever consumed energy drink (%)	315 (23.4%)	168 (48.7%)	< 0.0001
Play sports regularly (%)	1,122 (83.6%)	297 (86.1%)	0.2976

As tested by Student's t-test and Pearson's Chi-squared test

the vocational school system and the average latest GPA was minimally but significantly lower than nevergamblers. A higher percentages of families with financial difficulties were found among gamblers, yet the students in this group somehow had higher average monthly allowance than the other group. Father's education of gamblers was significantly lower than the never-gamblers, whereas mother's education and father's and mother's occupation were not statistically different between the two groups. Students who ever gambled were more likely to have history of smoking, alcoholic beverage consumption and/or consuming energy drink.

Among the gambling group (Table 2) card games were the most common type of game, followed by football betting and other games such as coinspinning, fan tan and sic bo, whereas the prevalence of lotto gambling was minimal. Almost half of those who had gambled reported having more than 10 out of 20 consequences of gambling based on DSMIV-TR criteria. Most common negative consequences were psychological effects, including feeling guilty when gambling, attempting to conceal gambling behavior from family members, having perception of poorer health and having depression or insomnia after losing bet. Other serious consequences included financial problems (borrowing money to pay debt, selling personal possession to pay debt, or being in debt), anxiety, substance usage for stress relief and school absence were moderately reported, while 1.5% of the respondents who hadgambled had considered suicide as a possible mean to escape gambling debt. Approximately 10% of the gamblers potentially had pathological gambling.

Table 3 shows attitude and gambling-related context between non-gamblers and gamblers. Gamblers had either supportive or neutral attitude towards such questionnaire items as "Gambling will help you to become rich" and "You often admire your friends who won gambling bets" (not shown), whereas non-gamblers had either antagonistic or neutral attitude. Gamblers had higher exposure to encouraging factors for gambling, *i.e.* they tend to prefer to spend time with their friends rather than their family. Students who had gambled also had significantly higher proportions of friends, parents, or relatives who gambled, had reported the presence of gambling places near their schools or within their neighborhood.

Table 2.	Types of	game played	and negative	consequences $(n = 348)$	
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Items	Gambled n (%)
Type of Gambling	
Card	166 (62.4)
Sport betting (football)	71 (26.8)
Coin-Spinning, Fan-Tan, Sic bo (Big & Small)	47 (17.7)
Others (cockfighting, horse-racing, TV boxing)	24 (9.1)
Lotto	22 (8.3)
Number of items on negative consequences, Mean = $5.7 (SD = 3.7)$	
Low (0-5 items)	50 (14.6)
Moderate (6-10 items)	138 (40.1)
High (11-15 items)	39 (11.3)
Very high (16-20 items)	117 (34.0)
Selected items on negative consequences of gambling (Student can answer more than one item)	
Felt guilty when gambling	200 (58.8)
Ever kept gambling behavior a secret from one's family	114 (33.4)
Felt that one's health worsened when gambled	106 (31.2)
Depression/Insomnia after losing	105 (30.8)
Borrowed money/Taken loan to play	37 (10.9)
Anxiety	35 (10.3)
Used relaxant/sleeping pill/alcohol after losing/being in debt	27 (8.0)
School absence	19 (5.7)
Sold personal possession to play/repay debt	16 (4.7)
Suicide ideation as a mean to escape debt	5 (1.5)
Gambling at potentially pathological level (> 10 items)	33 (10.2)

Personal factors and context associated with gambling (Table 4) were age, school performance, father's education, family financial crisis, other risk behaviors including smoking and drinking, having friends or relatives who gambled. Good school performance measured by $GPA \ge 3.0$ could significantly reduce odds of gambling by 42%. Students who had friends or relatives who gambled were 5 and 2.5 times more likely to gamble, respectively.

Discussion

Items

This is one of the few studies conducted on youth gambling in a developing country, as most other studies were conducted in developed economies context^(5-7,16-18). The present study reported 20.5% of Thai adolescents in metropolitan area had gambled, which is relatively lower than those reported in developed countries^(8,10,19). Youth gambling was prevalent among those with relatively low socioeconomic background and had other health risk behaviors, *i.e.* studying in a vocational high school, parental education below secondary school and having history of smoking and drinking. The results of the present study concurred with a study in Australia, which found that male gender, use of alcohol and marijuana use were predictive for involvement in gambling⁽²⁰⁾.

Previous studies in Thailand were mostly conducted among lotto gamblers^(21,22). However, the present study showed that cards and soccer betting were the most common gambling activities in

adolescents, whereas lottery was the least common form of gambling. This pattern was similar to a previous study, which also found that adolescents were involved mainly with noncommercial private gambling such as card playing, dice games and sport betting, while adults typically bet on lottery tickets, bingo and slot machines⁽¹⁹⁾. The fact that sport betting was common in the present study may also be the effect of gender, as males were found to be more prone to sports and game-related wagering, while females were more likely to play game of pure chance, such as bingo and lottery⁽²³⁾.

Approximately 85% of gamblers had suffered moderately to very highly from some negative consequences. The results were consistent with other studies which found youth gamblers to be at greater risk of drug use, illegal activities and HIV-risk behaviors⁽²⁴⁾ and that gambling was associated with significant mental health co-morbidity and lack of social functioning^(12,25). Previous study has shown that few adolescents were able to recognize signs of problematic gambling or access mental health treatment⁽⁸⁾, thus such service should be appropriately offered to adolescents at risk by guidance counselors or other approach school staff.

Personal and contextual factors including family or household and school were the main associated factors to youth gambling. Similarly to previous studies^(7,18), the present study found that boys were more likely to be gamblers than girls. Also the attitude, the present study found that attitudes played

Gambled

p-value

Never-Gambled

Table 3. Gambling-related psychosocial context of the respondents $(n = 1, n)$	694)
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	n(%) (n = 1.346)	n(%) (n = 348)	
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Attitude towards gambling			
Antagonistic	392 (30.2%)	16 (4.9%)	< 0.0001
Neutral	714 (54.9%)	205 (62.3%)	
Support	194 (14.9%)	108 (32.8%)	
Had friends who gambled (% yes)	312 (23.2%)	250 (72.5%)	< 0.0001
Had parents who gambled (% yes)	100 (7.7%)	82 (25.5%)	< 0.0001
Had other relatives who gambled (% yes)	90 (7.0%)	81 (25.2%)	< 0.0001
Family in debt due to gambling by family member (% yes)	39 (2.9%)	24 (7.0%)	0.0007
Had gambling place within the neighborhood (% yes)	392 (29.3%)	171 (50.4%)	< 0.0001
Had gambling place near the school (% yes)	211 (15.9%)	98 (29.5%)	< 0.0001
Had good relationships within the family (% yes)	1,272 (94.5%)	316 (91.6%)	0.0589
Parents showed good level of affection (% yes)	1,265 (94.0%)	317 (91.9%)	0.1960
Felt bored to join family activities (% yes)	133 (9.9%)	65 (18.8%)	< 0.0001
Wanted to spend time with friends rather than with family (% yes)	294 (21.8%)	135 (39.1%)	< 0.0001

Items	Crude OR (95% CI)	Adjusted OR (95% CI)	p-value (Wald's Test)
Male (Ref · Female)	1 75* (1 32 2 32)	1 33 (0 89 1 97)	0 161
Age > 18 (Ref : Age < 18)	$1.15^{\circ} (1.52, 2.52)$ 1 16 (0 87 1 53)	0.81(0.52,1.27)	0.362
GPA last sem > 3.0 (Ref. $GPA < 3.0$)	0.46*(0.35.0.61)	0.51(0.52,1.27) 0.58*(0.41,0.82)	0.002
Studying in vocational high school	2.1* (1.55.2.86)	2.4* (1.53.3.74)	< 0.001
(Ref. All other school systems)	2.11 (1100,2100)		(01001
Family in financial crisis (Ref. normal)	2.0* (1.46.2.73)	1.7* (1.14.2.52)	0.009
Monthly income > 3.000 THB	1.43*(1.09.1.89)	1.4(0.96.2.05)	0.082
(Ref. income < 3.000 THB)	(110),(110))	111 (01) 0,2100)	0.002
Living with single parent/others/alone	1.07 (0.81.1.41)	0.88 (0.6.1.28)	0.505
(Ref. Living with both parents)			
Being an only child (Ref. Siblings)	0.84 (0.58,1.21)	0.85 (0.54,1.33)	0.465
Father having high school education or lower	1.49* (1.1.2.01)	1.85* (1.14.3.00)	0.012
(Ref. diploma or higher)			
Father being homemaker or deceased	0.98 (0.57,1.68)	0.72 (0.37,1.41)	0.332
(Ref. Father being employed)			
Mother having high school education or lower	1.22 (0.9,1.67)	0.6 (0.36,1.01)	0.056
(Ref. diploma or higher)			
Mother being homemaker or deceased	0.92 (0.64,1.32)	0.98 (0.63,1.53)	0.936
(Ref. Mather being employed)			
Ever smoked (Ref. = never)	5.35* (3.77,7.59)	2.25* (1.43,3.54)	< 0.001
Ever drank alcohol (Ref. = never)	3.66* (2.65,5.07)	1.74* (1.17,2.57)	0.006
Ever had energy drink (Ref. = never)	2.7* (2.03,3.58)	1.16 (0.8,1.67)	0.439
Had friends who gambled (Ref. $=$ No)	7.33* (5.41,9.94)	4.82* (3.41,6.83)	< 0.001
Had parents who gambled (Ref. $=$ No)	3.53* (2.45,5.09)	1.67* (1.02,2.73)	0.041
Had other relatives who gambled (Ref. $=$ No)	4.47* (3.1,6.44)	2.48* (1.53,4.01)	< 0.001
Family in debt due to gambling by family members	2.78* (1.51,5.14)	1.12 (0.49,2.52)	0.79
(Ref. = No)			
Had gambling place within the neighborhood (Ref. = No)	2.36* (1.79,3.13)	1.16 (0.8,1.68)	0.439
Had gambling place near the school (Ref. $=$ No)	1.91* (1.4,2.61)	0.98 (0.65,1.49)	0.935
Had good relationships within the family (Ref. = No)	0.59 (0.35,1.00)	0.51 (0.23,1.13)	0.099
Parents showed good level of affection (Ref. = No)	0.8 (0.46,1.41)	1.72 (0.76,3.89)	0.196
Felt bored to join family activities (Ref. = No)	2.28* (1.52,3.4)	1.15 (0.68,1.92)	0.604
Wanted to spend time with friends rather than with family (Ref. = No)	2.09* (1.55,2.82)	1.1 (0.76,1.6)	0.612

Table 4. Multivariate logistic analysis of factors associated with gambled among all respondents (n = 1,694)

*Statistically significant at 95% level of confidence

an important role on gambling played in adolescent that similar to studies by McComb⁽¹⁶⁾ and Hill⁽¹⁸⁾.

Exposure to family members or relatives who play gambling had significantly higher chance of gambling behavior as family is a vehicle of assimilation. A study among Thai youths in Australia⁽²⁶⁾ has shown that adolescents with strong adherence to values of family of origin was apparently protective against development of problematic gambling pattern, such value should be embraced by the parents and repetitively embedded into the children from the young age. However, as the results have shown that adolescents with gambling problems tend to come from households that also had financial and gambling issues, various forms of support should also be made to enable the parents to resolve any of these issues that they may have and become more capable of instilling proper values to the children. In this instance, educational institutions can also play a key role in instilling these values into the children.

Gamblers appear to have the same pattern as that of juvenile delinquency. They are likely to smoke, drink, and have peers who were involved in gambling. The stage of psychosocial development in adolescent

by Erik-Ericson could explain that the most significant relationships among youths are their peer groups⁽²⁷⁾. Thus, they tend to behave similarly in order to be accepted among their peers. This, in turn, may be used to deliver a peer-to-peer message based on personal experience, e.g. a student who had gambling problem could share his or her experience of quitting gamble, such as refusal techniques, to gambling peer groups under supervision of a counseling teacher. Students with good academic performance (GPA \geq 3.0) were less likely to gamble. Similar to the result of previous studies⁽⁶⁾. Previous literatures also showed grade and GPA to be negatively associated with gambling behavior, *i.e.* the higher the grade, the lesser the likelihood of gambling^(28,29). Students from vocational schools were more likely to have gambling behavior which may be also linked to other delinquency found in the school system^(30,31). Special attention should be drawn and appropriate intervention should be made in order to improve the situation of youth gambling within the school system.

Even though the effect of presence of gambling places in the school and its neighborhood, and in residential were absent after adjusting for other factors, this factor still calls for the community attention because in the area with gambling places likely increased the likelihood of children being exposed to gambling. Therefore, serious suppression and prohibition should be made on the gambling venues. Educational institutions should raise awareness among the students on the mindset during gambling and patterns of entrapment⁽²²⁾ and warn the students of distorted perception on the chance of winning in contrast to the actual odds⁽²¹⁾.

The strengths of the present study lie in its high response rate and large sample size that could give precise estimation of the magnitude of youth gambling in the present study area and also provide an adequate power to examine factors associated with youth gambling. Moreover the study samples were selected from different parts of the Thai educational system that generally have different norm and characteristics. However, the temporal sequence of exposures and study outcome is limited by the crosssectional design and thus cannot be warranted. Although the response rate was high, partly due to great assistance and encouragement by the teachers, some sensitive risk behaviors may be underestimated. The study minimized this information bias by ensuring to the students that their response would be kept anonymous, concealed and confidential.

Conclusion

Gambling prevention program should be developed and focused on student with poor study performance and wrecked relationships in family. Also, surveillance system for health risk behaviors among youth in school and community should be established by the participation of multiple organizations.

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Potential conflicts of interest

None.

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ผลกระทบและปัจจัยที่เกี่ยวข้องกับการเล่นพนันของวัยรุ่นในเขตกรุงเทพมหานคร

สุพร อภินันทเวช, ซูเกียรติ วิวัฒน์วงศ์เกษม, มธุรส ทิพยมงคลกุล, วิทย์ วิชัยดิษฐ, รัศมี สังข์ทอง

วัตถุประสงค์: เพื่อศึกษาพฤติกรรมการเล่นพนัน ผลกระทบ และปัจจัยที่เกี่ยวข้องกับการเล่นพนันในกลุ่มวัยรุ่นไทย **วัสดุและวิธีการ**: ผูนิพนธ์ทำการสำรวจแบบ cross-sectional survey ในกลุ่มนักเรียนจำนวน 1,694 คน ตั้งแต่ระดับ ชั้นมัธยมศึกษาปีที่ 1 ถึงระดับปริญญาตรี โดยใช้แบบสอบถามชนิดผู้ตอบเป็นผู้กรอกเองในห้องเรียนคำถาม ในแบบสอบถามประกอบด้วยคุณลักษณะทางเศรษฐสังคม พฤติกรรมสุขภาพ ทัศนคติต่อการเล่นพนัน และผลกระทบ จากการเล่นพนัน ระบุปัจจัยที่เกี่ยวข้องกับการเล่นพนันโดยเทคนิค multivariate logistic regression

ผลการศึกษา: นักเรียนที่เคยเล่นพนันมีสัดส่วนของเพศชาย เรียนในระดับ ปวช. มีเกรดเฉลี่ยต่ำ และมีประวัติการสูบบุหรี่ และดื่มสุรามากกว่านักเรียนที่ไม่เคยเล่นพนัน ไพ่เป็นชนิดเกมการพนันที่พบได้มากที่สุด ตามด้วยการพนันฟุตบอล นักเรียนที่เคยเล่นการพนันประมาณร้อยละ 10 มีลักษณะพฤติกรรมที่อาจติดการพนัน ปัจจัยที่เกี่ยวข้องกับการเล่น พนัน อาทิเซ่น มีเพื่อน (adjusted OR = 4.82) และญาติพี่น้อง (adjusted OR = 2.48) ที่เล่นการพนัน ในขณะที่การได้เกรดเฉลี่ย ≥ 3.0 นั้นแปรผกผันกับการเล่นพนัน (adjusted OR = 0.58) ผลกระทบในเชิงลบจากการเล่นพนันได้แก่ ความรู้สึกผิดรู้สึกว่าสุขภาพแย่ลง และเกิดอาการซึมเศร้าหรือ นอนไม่หลับเมื่อเสียพนัน

สรุป: การป้องกันการเล่นพนันในวัยรุ่นควรดำเนินการในกลุ่มเด็กนักเรียนในโรงเรียนที่มีผลการเรียนไม*่*ค่อยดี หรือ มีความสัมพันธ์ระหว่างสมาชิกในครอบครัวที่ไม*่*ค่อยดีนัก การเฝ้าระวังวัยรุ่นกลุ่มเสี่ยงต่อพฤติกรรมการเล่นพนัน ทั้งในโรงเรียนและซุมซน สมควรที่จะมีหน่วยงานจากหลายภาคส่วนทั้งภาครัฐและเอกซนมาร่วมกันจัดการดูแล