พฤติกรรมการสูบบุหรี่ของนักเรียนชั้นมัธยมศึกษาตอนปลาย ณ โรงเรียนแห่งหนึ่ง อำเภอกันทรวิชัย จังหวัดมหาสารคาม

Smoking Behaviors of the Students in Senior High School in Kantharawichai District, Maha Sarakham Province

มณฑิรา จันทวารีย์[1,] * และปิยะณัฐฏ์ จันทวารีย์ [2]

Montira Juntavaree [1,] * and Piyanut Juntavaree [2]

บทคัดย่อ

การวิจัยครั้งนี้มีวัตถุประสงค์ เพื่อศึกษาพฤติกรรมและปัจจัยที่มีผลการสูบบุหรี่ของนักเรียนชั้นมัธยมศึกษาตอนปลาย ณ โรงเรียนมัธยมศึกษา อำเภอกันทรวิชัย จังหวัดมหาสารคาม กลุ่มตัวอย่าง คือ นักเรียนชั้นมัธยมศึกษาตอนปลาย จำนวน 158 คน เป็นการศึกษาแบบภาคตัดขวาง (Cross sectional study) เก็บข้อมูลโดยใช้แบบสอบถาม ใช้สถิติเชิงพรรณนาและสถิติเชิงอนุมาน คือ Multiple logistic regression ผลการวิจัย พบว่า กลุ่มตัวอย่าง อายุระหว่าง 15-19 ปี เป็นเพศชาย ร้อยละ 59.5 ส่วนใหญ่ไม่สูบบุหรี่ ร้อยละ 81 สาเหตุที่สูบบุหรี่ คือ อยากลองด้วยตนเอง ร้อยละ 53.3 อายุที่เริ่มสูบบุหรี่ คือ 15 ปี ร้อยละ 40 มีความรอบรู้ทางสุขภาพ 6 ด้าน ดังนี้ ความรู้ พบว่า อยู่ในระดับสูง ($\bar{X}$ = 1.90, S.D. = 0.71) การเข้าถึงข้อมูลสุขภาพฯ พบว่า อยู่ในระดับปานกลาง ($\bar{X}$ = 0.71, S.D. = 0.15) ทักษะการสื่อสาร พบว่า อยู่ในระดับปานกลาง ($\bar{X}$ = 2.01, S.D. = 0.57) ทักษะการตัดสินใจพบว่า อยู่ในระดับสูง ($\bar{X}$ = 1.83, S.D. = 0.53) การจัดการตนเองพบว่า อยู่ในระดับปานกลาง ($\bar{X}$ = 1.87, S.D. = 0.52) ด้านการรู้เท่าทันสื่อพบว่า อยู่ในระดับปานกลาง ($\bar{X}$ = 2.23, S.D. = 0.77) ปัจจัยที่มีความสัมพันธ์ คือ ความรอบรู้ทางสุขภาพ ด้านความรู้ เรื่อง การสูบบุหรี่ทำให้มีโอกาส ติดยาเสพติดประเภทอื่น (AOR = 1.12; 95% CI = 1.075 to 5.59; P-value = 0.03) หน่วยงานที่เกี่ยวข้องควรหาแนวทาง ในการดำเนินงานเพื่อควบคุมและป้องกันนักสูบหน้าใหม่และผลกระทบที่อาจเกิดขึ้นจากการสูบบุหรี่

คำสำคัญ: ความรอบรู้ทางสุขภาพ การสูบบุหรี่ นักเรียนชั้นมัธยมศึกษา

[1] คณะวิทยาศาสตร์และเทคโนโลยี มหาวิทยาลัยราชภัฏมหาสารคาม, มหาสารคาม 44000
  Faculty of Science and Technology, Rajabhat Maha Sarakham University, Maha Sarakham 44000, Thailand.
[2] วิทยาลัยการสาธารณสุขสิรินธร, อุบลราชธานี 34190
  Sirindhorn Public Health College Ubon Ratchathani, Ubon Ratchathani 34190, Thailand
 *Corresponding, e-mail: dek-do@hotmail.com

ABSTRACT

The purpose of this research was to study smoking behaviors and factors affecting to the students in senior high school, Kantharawichai District, Maha Sarakham Province. The sample group consists of 158 senior high school students. The study uses cross sectional study. Questionnaires were used for a data collection. Descriptive statistics that used for data analysis were frequency, percentage, arithmetic mean, standard deviation, minimum, and maximum and inferential statistics with multiple logistic regression. The research results showed that 59.5 percent of the sample group are male, and 81 percent of the sample group didn't smoke. The reason of smoking is curiosity which was accounted for 53.3 percent. 40 percent of them started smoking at the age of 15. The level of their health literacy in 6 aspects found that knowledge was at a high level ($\overline{X}$ = 1.90, S.D. = 0.71). The accessibility of health data was at a moderate level ($\overline{X}$ = 0.71, S.D. = 0.15). The communication skill was at a moderate level ($\overline{X}$ = 2.01, S.D. = 0.57). The decision making skill was at a high level ($\overline{X}$ = 1.83, S.D. = 0.53). Their self-management is at a moderate level ($\overline{X}$ = 1.87, S.D. = 0.52). Their media literacy was at a moderate level ($\overline{X}$ = 2.23, S.D. = 0.77). The factors related to smoking behaviors were health literacy, knowledge of how smoking increases a chance of substance addiction (AOR = 1.12; 95% CI = 1.075 to 5.59; P-value = 0.03). Involved organizations should control and prevent new smokers and effects of smoking.

Keywords: Health literacy, Smoking behavior, Senior high school

Introduction

Smoking has a disadvantage toward health of the smokers and those who breathe in secondhand smoke. It is also a cause of disability and premature death because cigarettes and cigarette smoke contain substances that are harmful to health in both short term and long term. According to the study, the factors of the smoking of students are an influence of friends, acceptance from seniors, the awareness of a smoking rule in school, the imitation of family members (Tassanee Jongpricha, 2015). National Statistical Office collected a data of the smoking in Thai citizens in 2014. The data showed that 11.4 million out of 54.8 million Thai citizens who were above 15 years old smoked. Those who aged between 25-29 years old were those who had the highest smoking rate. 27.8 percent of the smokers smoked in their own houses.

According to tobacco consumption behaviors nationwide, in 2017, the highest rate of smoking belonged to those who had an educational background of elementary school followed by those who had an educational background of junior high school, those who never studied in senior high school and those with higher education which accounted for 22.0, 5, 18.1, 18.0 and 7.7 percent respectively. Those who had an educational background of higher education had 64.68 percent lower of smoking rate. Thai citizens who were above 15 years old started to smoke for the first time and regularly at the age of 18.1 years old which was a little higher than in 2014 which had the average of starting age of 17.8 years old. When compared each age group in 2017, the adolescents had the average age of start smoking of 16.2 years old which increased from 2014 which
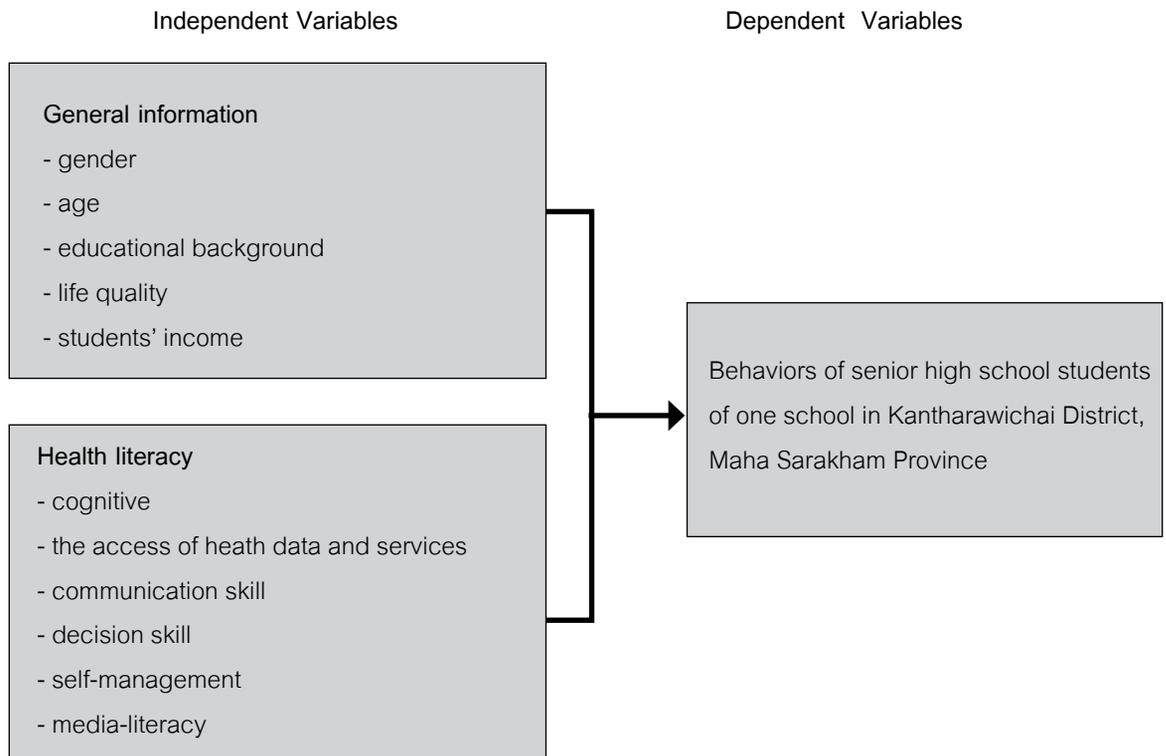
had the average of start smoking of 15.6 years old. The working age group and elderly had a minor difference in starting age of smoking in each year which was between 18-19 years old. From 1991-2017, the tobacco consumption rate of the male population had a smaller decrease when compared to the female population which was 36.42 and 66 percent (National Statistical Office, 2014)

According to the statistics and tobacco consumption situation in Thailand, smoking is an issue that needs to be solved because tobacco is a narcotic that is easy to purchase, and people start to smoke at young age in both female and male. The smokers are more likely to have a risk in using stronger narcotics. (Pornnap Homsin, 2012) Smoking also has negative effects to smokers and people around them. It occurs long-term health issues Therefore, the researcher sees a significance in studying and researching about health and smoking in order to assess knowledge about smoking for preventing and solving issues in the present and future.

Objective

1. To study health literacy of senior high school students of one school in Kantharawichai District, Maha Sarakham Province.

2. To study smoking behaviors of senior high school students of one school in Kantharawichai District, Maha Sarakham Province.

3. To identify factors related to smoking behaviors of senior high school students of one school in Kantharawichai District, Maha Sarakham Province.

Conception Framework

Independent Variables

Dependent Variables

General information
- gender
- age
- educational background
- life quality
- students' income

Health literacy
- cognitive
- the access of heath data and services
- communication skill
- decision skill
- self-management
- media-literacy

Behaviors of senior high school students of one school in Kantharawichai District, Maha Sarakham Province

Research Methods: Analytical study with cross - sectional study

Population and Sample: This research Conducting studies in students of Kantharawichai School Kantharawichai District, Maha Sarakham Province 554 people e, the sample will use the Purposive Sampling in the school is 158 people Senior High School students, which the characteristics of the selected sample were in line with the research objectives..

Research tools: This research uses questionnaires as research tools. The questionnaires consist of 3 parts **as follows: Part 1** general information of sample group **Part 2** aspects of health literacy, this part consists of questions on health literacy. It is divided in 6 part which are cognitive, the access of heath data and services, communication skill, decision-making skill, self-management, and media literacy related to smoking. **Part 3** smoking behaviors

Research tool

The assessment of questionnaires is conducted. Indexes or indicators of questionnaires' quality are content validity, reliability, and discrimination.

1. Content Validity of the research tools: the questionnaires are proposed to specialists in order to check content validity, language, and assessment. The content validity of the tools : IOC of 0.85. The questionnaires are adjusted for use by 3 specialists.

2. Reliability: the researcher improves and adjusts the created questionnaires as suggested by the specialists. The 50 improved questionnaires are used for a try out on senior high school students of Rajabhat Maha Sarakham University Demonstration School, Maha Sarakham who are not the sample group. The reliability test on knowledge is conducted by using: KR-20 (0.74). Data accessibility, communication skill, decision making skill, self-management, and media literacy related to smoking are analyzed by using Cronbach's alpha coefficient (0.88)

Data analysis

1. Data is analyzed by using descriptive statistics. The general information, factors of smoking behaviors, factors influencing tobacco consumption. The data is presented in the table by using frequency, percentage, arithmetic mean, standard deviation, minimum, and maximum.

2. The data analysis uses multiple logistic regression for finding factors influencing tobacco consumption of students. Adjusted OR is presented with confidence interval of 95%CI.

Research Results

1. General information of senior high school students of one school in Kantharawichai District, Maha Sarakham Provinve which 158 of students are sample group.

Table 1 General information of senior high school students of one school in Kantharawichai District, Maha Sarakham Province (n = 158)

General information	Number	Percent
1. Age		
15 years old	30	19.0
16 years old	48	30.4
17 years old	53	33.5
18 years old	22	13.9
19 years old	5	3.2
($\bar{X}$) = 16.52, S.D. = 1.05, Min = 15, Max = 19		
2. Gender		
Male	94	59.5
Female	64	40.5
3. How often does your family member(s) smoke?		
Regularly	34	21.5
Sometimes	42	26.6
Never	82	51.9
4. Hobby		
Gaming	71	44.9
Playing sport	51	32.3
Reading	17	10.8
Drawing	7	4.4
Listening to music	12	7.6

2. The health literacy is divided into 6 aspects as follows Table 2

Table 2 The health literacy is divided into 6 aspects (n = 158)

The health literacy	$\bar{X}$	S.D.	Interpretation
1. Cognitive understanding of smoking behaviors	1.90	0.71	High level
2. The access of health data and services	0.71	0.15	High level
3. Communication skill	2.01	0.57	High level
4. Decision making in smoking behaviors	1.83	0.53	Moderate level
5. Self- management in smoking behaviors	1.87	0.52	Moderate level
6. Medial literacy about smoking behaviors	2.23	0.77	Moderate level

88

Ratchaphruek Journal Vol.17 No.3 (September - December 2019)
วารสารราชพฤกษ์ ปีที่ 17 ฉบับที่ 3 (กันยายน - ธันวาคม 2562)

3. Smoking behaviors, most of the students do not smoke which are 128 students (81 percent). 30 students smoke (19 percent). The reason of smoking of 16 students are curiosity (53.3 percent). The type of tobacco that they smoke the most is cigarette (22 students, 73.3 percent). 19 students smoke 1-4 cigarettes per day (63.3 percent). 22 students smoke occasionally (73.3 percent). 12 students started smoking at the age of 15 (40 percent). Expense used for smoking is 40 baht (36.7 percent). There are 24 students who want to quit smoking (80 percent). The reason they want to stop smoking are a health concern from smoking, wanting to stay healthy, respectively.

Factors related to smoking behaviors

The study used multiple logistic regression with a technique of backward elimination. The study found magnitude of effect as seen in a table below:

of her study find that bachelor's degree male students have knowledge about tobacco at a high level accounted for 64 percent. And result is consistent with Aran Koonkum (2010) who studies Factors Relating to Smoking Prevention Behavior of Male Students in the Upper Secondary Schools under the Jurisdiction of the Office of Ubon Ratchathani Educational Service Area 2. The results find that knowledge about smoking (β = 0.10). a predictive factors were found to have a linear relationship at the level of .05 of significance (F = 69.78, P = .00) with the correlation coefficient of .64 And result is consistent with Sombat Dulyarat (2013) who studies Factors Affecting the Youth's Behavior for Cigarette in Mae Hong Son Province The results find that When tested on their knowledge on the danger of smoking, 68.3% of the students did know well about smoking danger This may be because the sample group from the school in Kantharawichai District, Maha Sarakham Province

Table 3   Multiple logistic regression analysis between factors related to smoking behaviors of senior high school students (n = 158)

	Amount	%SK	Crude OR	Adjusted OR	95%CI	P-value
1. Smoking increases chance of other narcotics addition						0.03
Smoke	128	44.68	1	1	1	
Do not smoke	30	58.92	2.70	2.04	1.34 to 3.11	

Discussion

According to the cognitive understanding of smoking behaviors, the study found that most of the students have the knowledge at a high level which accounted for 62.7 percent. This result is consistent with Aparat Ingkapakorn (2015) who studies knowledge and smoking behaviors of male students of bachelor's degree, Kasetsart University. The results

learns from their school through no-smoking in school signs and gains knowledge from a seminar related to dangers of smoking. This makes the sample group have a high level of knowledge.

The access of health data and services related to smoking behaviors of the sample group on overall is at a moderate level. When consider in each aspect,

the aspect of stop-smoking awareness from television or printed media has the highest mean ($\overline{X}$ = 2.22, S.D. = 0.68) because the school provides seminars and media related to stop-smoking campaign for the students. Hence, the students can access to media provided by their school.

The communication skill about smoking behaviors of the sample group in overall is at a moderate level. The aspect with the highest mean is being able to suggest other about how to prevent smoking, such as refusing when being asked to smoke ($\overline{X}$ = 2.25, S.D. = 0.75). In addition, the students realize the dangers of smoking. The students who have never smoked will mostly refuse when being asked to smoke and be able to advice their friends to not smoke when being asked to.

The decision-making skill about smoking behavior of the sample group in overall is at a highest level. The aspect that has the highest mean is smoking when feeling stressed ($\overline{X}$ = 2.63, S.D. = 0.65). Most of the students feel stressed about family issues or study problems and they are smokers, so they choose to smoke because they believe it helps them feel relaxed. This is a result of nicotine in tobacco which make the smokers feel relaxed when they are smoking.

These results are consistent with Phornpatchara Siriindharadhorn (2013). The study shows that Predictability of attitude towords smoking-avoidance and Emotional Quotient on smoking–avoidance behaviors of secondary school students The study shows that Students decide to smoke because of stress. From studying (80 %)

The self-management skill about smoking behavior of the sample group in overall is at a moderate level. The aspect with the highest mean is choosing another activity to stay away from smoking,

such as exercise ($\overline{X}$ = 2.28, S.D. = 0.77). These results are consistent with Chittima Thungproun (2014). The study shows that The effect of self-management program on smoking behavior among non commissioned officers. When self-management is good, such as attending various trainings, it is possible to quit smoking.

The media literacy of smoking behaviors of the sample group in overall is at a moderate level. The aspect with the highest mean is often see brochures about dangers of smoking when visiting a health service facility ($\overline{X}$ = 2.25, S.D. = 0.77). Hospital or health promoting hospital will provide brochures about dangers of smoking for students or other people to read and to apply for use in daily life. These results are consistent with Chatchadaporn Parittayapong (2012). The effect of a non-smoking television campaign on the decisions of smokers regarding smoking. The study shows that The form of presentation through diverse media will cause awareness of violence.

There are 30 students who smoke while still studying while the other 128 students do not smoke. The aspects with the highest mean is the reason of smoking is curiosity which accounted for 53.3 percent, followed by feeling frustrated when not smoking which accounted for 43.3 percent. The age that they started smoking is 15 years old which accounted for 40 percent. These results are consistent with Niyom Channuan (2016) who studies smoking situation of students and staffs of Ubon Ratchathani University. The study shows that they start smoking at the age of 16.9 years old because they are influenced by family members, friends or seniors. This makes them curious and want to try smoking. There are the increasing number of new smokers, and there are students who are young and are starting to smoke.

Suggestion

1. Most of the students do not smoke but there are some female and male students who smoke. Therefore, the school should have a policy for preventing smoking in the school area. There should be a serious policy such as checking students' bags before entering the school and patrolling places that students might use for smoking during lunch break and after school.

2. Finding a solution to control and prevent students from smoking as well as effects or dangers from smoking. And Cooperate with other institutions, including educational institution and family in order to solve a smoking problem.

References

Aparat Ingkakorn. (2015). *Knowledge, Perspective, Behaviors of Male Students' Smoking Behaviors in Bachelor's Degree, Kasetsart University, Bang Khen Campus.* Retrieved December 14, 2018, from https:// www.tci-thaijo.org.

Aran Koonkum. (2010). *Factors Relating with Smoking Behavior, Prevention of male Students Upper Secondary School Under the Education Area Office, 2nd District, Ubon Ratchathani.* Retrieved December 25, 2018, from https:// www.tci-thaijo.org.

Chatchadaporn Parittayapong. (2012). *The effect of a non-smoking television campaign on the decisions of smokers regarding smoking.* Retrieved January 31, 2019, from https:// www. tci-thaijo.org.

Chittima Thungproun. (2014). *The effect of self-management program on smoking behavior among non commissioned officers.* Retrieved February 11, 2019, from https:// www.tci-thaijo. org.

National Statistical Office. (2014). *Survey on Smoking and Drinking Behaviors of Citizens in 2014.* Bangkok: Population and Social Statistics, Statistical Office of Economy and Society.

Niyom Channuan. (2016). *Smoking Situation of Students and Staffs of Ubon Ratchathani University: Non-Smoking Project of Ubon Ratchathani.* Retrieved December 14, 2018, from https:// www.ubu.ac.th

Phornpatchara Siriindharadhorn. (2013). *Predictability of attitude towords smoking-avoidance and Emotional Quotient on smoking –avoidance behaviors of secondary school students.* Retrieved February 11, 2019, from https:// www.tci-thaijo.org.

Pornnapa Homsin. (2012). *Predictors of smoking up take among thai male adolescents: early smoking stages.* Retrieved December 25, 2018, from https:// www.tci-thaijo.org.

Sombat Dulyarat. (2013). *Factors Affecting the Youth's Behavior for Cigarette in Mae Hong Son Province.* Retrieved February 11, 2019, from https:// www.tci-thaijo.org.

Tassanee Jongpricha. (2015). *Smoking behavior of students at Chan Kasem Rajabhat University.* Retrieved December 25, 2018, from https:// www.tci-thaijo.org.