สถานการณ์ความเสี่ยงต่อยาเสพติดของเด็กปฐมวัยในอำเภอเมืองภูเก็ต

Drug Abuse Risk Situation among Preschool students in Muang Phuket, Phuket province, Thailand

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บทคัดย่อ

การวิจัยเรื่องนี้มีวัตถุประสงค์เพื่อศึกษาความชุกของความเสี่ยงต่อปัญหายาเสพติดและประเมินความสัมพันธ์ระหว่างเขตที่ตั้งสถานศึกษาและระดับชั้นเรียนกับความเสี่ยงต่อปัญหายาเสพติดของเด็กปฐมวัย การวิจัยครั้งนี้เป็นการศึกษาแบบภาคตัดขวาง (Cross sectional study) ในเด็กนักเรียนอายุ 2-6 ปี จำนวน 3,353 คน จากทั้งหมด 3,654 คน ของศูนย์พัฒนาเด็กเล็กและโรงเรียนระดับอนุบาลสังกัดองค์กรปกครองส่วนท้องถิ่นในเขตอำเภอเมืองภูเก็ต จำนวน 28 แห่ง ดำเนินการเก็บข้อมูลในภาคการศึกษาที่ 1 ปีการศึกษา 2559 การวัดความเสี่ยงต่อยาเสพติดใช้แบบสอบถามโดยให้ครูและผู้ดูแลเด็ก 70 คน เป็นคนตอบด้วยตนเองและส่งคืนกลับในช่วงเดือน เมษายน ถึง พฤษภาคม 2559 วิเคราะห์ข้อมูลโดยใช้ความถี่ ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน พิสัย Odds ratio (OR) with 95% confidence interval (CI) ผลการศึกษา : ความชุกของความเสี่ยงต่อปัญหายาเสพติดที่รายงานโดยครูและผู้ดูแลเด็ก พบปัญหาการนอนหลับ (1.28%), ความเครียด (0.78%), ก้าวร้าว (1.10%), วิตกกังวล (0.69%), ซึมเศร้า (0.89%), สมาธิสั้น (3.61%), บกพร่องทางการเรียนรู้ (4.00%), ถูกทำร้ายและทอดทิ้ง (0.03%), สมาชิกในครอบครัวมีการใช้ยาเสพติดหรือสารเสพติด (12.53%), บิดาหรือมารดาเปลี่ยนสถานภาพสมรส (6.53%), ความขัดแย้งของพ่อแม่หรือผู้ปกครอง (1.88%), ครอบครัวมีปัญหาการเงิน (3.37%) และยาเสพติดหาได้ง่ายในชุมชน (5.16%) ระดับชั้นเตรียมอนุบาลมีความสัมพันธ์กับความเสี่ยงต่อปัญหายาเสพติด (OR=0.59, 95% CI 0.51 - 0.69, p< 0.00) ปัจจัยด้านครอบครัวและชุมชนที่สัมพันธ์กับปัจจัยด้านลักษณะบุคคลที่พบความเสี่ยงมากที่สุด 3 อันดับแรก ได้แก่ เด็กที่มีปัญหาการนอนหลับเกี่ยวข้องกับสมาชิกในครอบครัวมีการใช้ยาเสพติดหรือสารเสพติด, ครอบครัวมีปัญหาการเงิน และยาเสพติดหาได้ง่ายในชุมชน อย่างมีนัยสำคัญที่ระดับ 0.05 เด็กที่บกพร่องทางการเรียนรู้เกี่ยวข้องกับบิดาหรือมารดาเปลี่ยนสถานภาพสมรส, ความขัดแย้งของพ่อแม่หรือผู้ปกครอง, ครอบครัวมีปัญหาการเงิน และยาเสพติดหาได้ง่ายในชุมชน อย่างมีนัยสำคัญที่ระดับ 0.05 เด็กที่สมาธิสั้นเกี่ยวข้องกับสมาชิกในครอบครัวมีการใช้ยาเสพติดหรือสารเสพติด, บิดาหรือมารดาเปลี่ยนสถานภาพสมรส, ความขัดแย้งของพ่อแม่หรือผู้ปกครอง และครอบครัวมีปัญหาการเงิน อย่างมีนัยสำคัญที่ระดับ 0.05 สรุปได้ว่าความชุกของความเสี่ยงต่อปัญหายาเสพติดของเด็กปฐมวัยในอำเภอเมืองภูเก็ต 25.86% นักเรียนที่มีความเสี่ยงพบได้ทั้งมีปัจจัยเสี่ยงเพียงปัจจัยเดียวและหลายปัจจัย ความบกพร่องทางการเรียนรู้เป็นปัจจัยด้านลักษณะพฤติกรรมที่มีความชุกมากที่สุด สมาชิกในครอบครัวมีการใช้ยาเสพติดหรือสารเสพติดเป็นปัจจัยด้านสิ่งแวดล้อมที่มีความชุกมากที่สุด ครอบครัวมีปัญหาการเงินเกี่ยวข้องกับปัญหาการนอนหลับ สมาธิสั้น และบกพร่องทางการเรียนรู้ ทีมสหวิชาชีพควรให้การช่วยเหลือที่เหมาะสมแก่นักเรียนที่มีความเสี่ยงต่อการใช้ยาเสพติดทั้งระดับบุคคล ครอบครัว โรงเรียน และชุมชน นอกจากนี้ควรมีการติดตามความเสี่ยงในระยะยาว เพื่อป้องกันไม่ให้เด็กเข้าสู่ปัญหายาเสพติดและมีพฤติกรรมที่ไม่เหมาะสมในอนาคต

คำสำคัญ : ความเสี่ยงต่อยาเสพติด, ความชุก, นักเรียนปฐมวัย

Abstract

This paper aims to explore the prevalence of drug abuse risk problems and assess the association between school location, education level, and drug abuse risk problems among preschoolers. This paper is A cross-sectional study of 3,353 students from a total of 3,654 students aged 2-6 years at 28 child centers and kindergarten schools under a local government organization in Muang Phuket, which was performed in the semester 1 academic year 2016. The drug abuse risks were measured using the self-administered questionnaire, which teachers and caregivers 70 persons completed and returned during April and May 2016. Data were analyzed using frequency, percentage, mean, standard deviation, range, and odds ratio (OR) with 95% confidence interval (CI). Results: The prevalence of drug abuse risk problems reported by teachers and caregivers were sleep problems 1.28%, stress 0.78%, aggression 1.10%, anxiety 0.69%, depression 0.89%, attention deficit hyperactivity disorder (ADHD) 3.61%, learning disabilities (LD) 4.00%, abuse and neglect 0.03%, family member use drug or substance 12.53%, changing marital status of parents 6.53%, conflict in parents or guardians 1.88%, poverty of family 3.37%, and finding drugs easily in the community 5.16%. The pre-kindergarten level is associated with drug abuse risks (OR=0.59, 95% CI 0.51 - 0.69, p< 0.00). Family-social and community factors associated with the three most risky personal factors (sleep problem, LD, and ADHD) included children with sleep problems related to family members using drugs or substances, poverty of the family, and finding drugs easily in the community were statistic significant (p-value <0.05). Children with LD related to changing marital status of parents, conflict in parents or guardians, poverty of the family, and finding drugs easily in the community were statistically significant (p-value <0.05). Children with ADHD related to family members using drugs or substances, changing marital status of parents, conflict in parents or guardians, and poverty of family were statistically significant (p-value <0.05). In conclusion, the prevalence of drug abuse risks among preschoolers at Muang Phuket was 25.86%. These students at risk can find both single and multiple risk factors. LD was the most prevalent in behavioral risk factors. Family member's use of drugs or substances was the most prevalent environmental risk factor. The poverty of the family was related to sleep problems, ADHD, and LD. The multidisciplinary team should provide appropriate interventions to the students with drug abuse risks in individuals, families, schools, and communities and also monitor the risk in the long term to prevent the children from developing drug abuse problems and conduct disorders in the future.

Keywords: Drug Abuse Risk, Prevalence, Preschool students

Introduction

Drug abuse is an important global harm challenge. The United Nations Office on Drugs and Crime (UNODC) estimated that 5% of global people at ages 15-64 years used drug at least once in 2015[(1)]. The widely used drugs at the global level include cannabis, amphetamine type stimulants (ATS), opioids,

opiates, cocaine and new psychoactive substances (NPS) [1]. Collection of data from the National Survey of Drug Use and Health (NSDUH) on age at first use of illegal drugs across the U.S. begins at age 12 years, with data from 2014 indicating that 2.1% were current alcohol users and 1.1% were current tobacco users [2].

In Thailand, drug abuse has been a problem since 1360[3]. An overview of national drug use problem has increased serious and complex problems such as types and process of drug, drug production, pattern of addictive addiction, smuggling, drug distribution and trade in the past 10 years. In 2003, the Office of the Narcotics Control Board estimated 460,000 persons who were drug-related, during the period 2007-2008, from 570,000 to 605,000 persons [4].

In 2011, the national household survey assessing the prevalence of drug abuse estimated 3.5 million people aged 2-15 years had experienced at least one kind of illicit drug use in their lifetime [5]. In 2016, the latest national household survey on substance uses among the Thai population at aged 12-65 years (50.97 million people across the country) approximately 2.96 million or 58.16 per 1,000 population had least one kind of illegal substance [6]. This survey reported number of people who were using one or more substances within the past 12 months was 1,425,342 (27.97 out of 1,000 people). Kratom, cannabis, yaba, 4x100, and ice were the most popular substances in use[6].

The admission for drug treatment is a prospective drug problem in the future. The total number of illegal drug users/addicts who registered for treatment throughout the country was the highest in 2003 (480,711 drug abusers) but fell between 2004 and 2010. It peaked in 2012 (568,000) but decreased again in 2013 (416,873) and 2014 (303,501) [7]. Most of the illegal drug users were young people aged 15-24 years; methamphetamine addicts were still the biggest group of drug patients in treatment centers [7]. The Ministry of Public Health's Drug Abuse and Rehabilitation System reported the younger children (under 12 years) were drug abuser and registered to receive medical treatments in the past 10 years, during period 2006-2015, range 12-82 persons [8].

Since the mild 1980s, there have been a large number of scientific studies on risk and protective factors that associated with child outcomes. The pathway risk and protective factors interact to produce positive or negative outcomes at different stages of a child’s development is complex and not always clearly understood [9].

In the research literature, preschool risk factors associated with drug abuse problems have been examined in several studies. Sleep problems related to the initiation of alcohol, aged 8-14 years in male and aged 15-17 years in female, related to begin for smoking at aged 7-11 years and predicted the using of marijuana at aged 7-15 years in boys [10]. Stress of children aged 2-3 years affected to the important hormones and genes in brain for controlling behaviors and emotions. If early young children got chronic stress will affect to drink alcohol in adolescence and depend on drug as in adult [11]. Anxiety in children predicted the age of

substance abuse in male, the present of substance user survey at age 20 years in male showed that 78.9% were alcohol users, 56.6% were tobacco users and 55.5% were marijuana users [12].

The children's depression was positively correlated with alcohol use. Children with moderate to severe depression were more than double of mild depression [13]. Anti-social behaviors such as aggression and delinquency in preschool, reported aged 3-5 years old masters with severe delinquency, were more tendency to start drinking alcohol [14] and related marijuana users especially younger male (OR=6.46; 95% CI=4.06,10.28) [15]. Attention deficit hyperactivity disorder (ADHD) children were strongly associated the using of nicotine and other addictive substances [16]. In addition, learning disability (LD) factor can also affect to children, if the children were raised to stimulate physical and brain development, so that children will decrease inappropriate behavior [17,18,19].

Risk factors from family, society and environment may also lead to drug users in the future. The long-term study in aged 4-14 years reported, more than 90% of these factors associated the health problems of children in the future, included abuse of physical psychological and sexual, abandonment, the using of drugs and alcohol of caregivers, depression of caregivers, abuse of caregivers, crime' s family members[20,21] In addition, environment in school and community such as peers with risk and problem behaviors, the access of drugs in schools and community also affect to adolescence drugs users [22,23,24].

Some signs of risk can be seen as early as six years of life. The risk factors surveillance is an important for quickly detect to a developmental risk trajectory, approach drugs problem. Therefore, surveillance data will lead to solve preschooler behavior problems.

Objectives

The primary objective was to explore the prevalence of drug abuse risks among preschoolers at Muang Phuket. The secondary objective was to assess the association between school location, education level and drug abuse risks.

Material and Method

The presented study was a cross-sectional study design.

Areas of Study

The setting was purposive sampling. Number 28 (100%) child centers and kindergarten schools under local government organization in Muang Phuket were participated in the study.

Population and Samples

Recruitment of subjects took place at the participating child centers and kindergarten schools from the semester 1 academic year 2016. Number 3,353 students from total 3,654 students (91.76%) at

aged 2-6 years were agreed to participate in the study. The teachers and caregivers of the participating child centers and kindergarten schools in the past 2 months were 70 persons, received the complete description of the study.

Outcomes of interest

Drug abuse risks in the presented study were personal factors (sleep problem, stress, aggression, anxiety, depression, attention deficit hyperactivity disorder: ADHD, learning disabilities: LD) family factors (abuse and neglect, family member use drug or substance, changing marital status of parents, conflict in parents or guardians, poverty of family) and social-community factor (finding drugs easily in the community). The outcomes of the study were prevalence of drug abuse risks in semester 1 academic year 2016 and the relationship between school location, class level and risk factors.

Tools

The risk assessment form for drug abuse problems among preschoolers, which was developed by teachers, child caregivers and 3 experts, comprised 3 sections included 1) demographics, 2) personal factors, and 3) family-social and community factors. The questionnaire consists 85 items that measure the following broad domains: personal factors (80 items), family-social and community factors (5 items) also each items had Index of Item – Objective Congruence (IOC) more than 0.67. The cut-off indicating (clinical range) at 6 scores of each personal factors and 1 score of family-social and community factors.

Data collection

The researcher was asked to give all teachers/ child caregivers and parents of children with the form of informed and voluntary consent to participate in the study and research questionnaires. If they agreed to participate, so that researcher gave the self-administered questionnaires to teachers/ child caregivers and return during April and May 2016.

Data analysis

The data were double-entered into computer and validated. Data exploration was performed to correct for out-of-range value, outliers, and missing values. The data set was analyzed by frequency, percentage, mean, standard deviation, range, odds ratio (OR) with 95% confidence interval (CI).

Ethics statement

The presented study was approved by the Human Research Ethical Committee of Khon Kaen University. (approval no. HE581523) and was accordance with the principles of the Declaration of Helsinki and ICH GCP standards. Written inform consent was obtained from the participants and from the parent or guardians.

Results

There were 3,353 students who were assessed the risks of drug abuse. The demographics data are shown in Table 1. The prevalence of each drug abuse risk factors in preschoolers are presented in Table 2. The numbers and percentages of students having the risk factors are shown in Table 3. The relationship between school location, education level and drug abuse risks, were found that pre-kindergarten level related to drug abuse risks (OR=0.59, 95% CI 0.51 - 0.69, p< 0.00) are shown in Table 4. When examining which of the family-social and community factors were associated with the 3 of most risk factors (sleep problem, LD, and ADHD). The presented study was found that children with sleep problem related to family member use drug or substance, poverty of family, finding drugs easily in the community were statistic significant (p-value <0.05). Children with LD related to changing marital status of parents, conflict in parents or guardians, poverty of family and finding drugs easily in the community were statistic significant (p-value <0.05). Children with ADHD related to family member use drug or substance, changing marital status of parents, conflict in parents or guardians, poverty of family were statistic significant (p-value <0.05) are presented in Table 5.

Discussion

The presented study was used to the guidelines of the behavioral characteristics and environmental surveillance in preschool students for detecting the early signs can influence drug abuse in the future. The prevalence of drug abuse risks in preschoolers at 25.86%, that more behavior and emotional problems than the study in Bangkok which used to the Strengths and Difficulties Questionnaire: SDQ was 11.9% [25], the prevalence was more behavior and emotional problems than the study in Thailand at aged 5-16 years was 20.15% [26], but the prevalence was lower than the study at aged 8-11 years in Bangkok was 37.58% [27].

The risk assessment of child behaviors was showed that the prevalence of behavioral problems was rather than emotional problems, might be behavioral expression can be seen outside. In the presented study, the prevalence of LD was the highest at 4.00%, ADHD 3.61%, and sleep problem 1.28%, there was lower than the behavioral problems study at aged 1-5 years in the north of Bangkok, was reported sleep problem 24.7%, aggressive 21.7%, and emotional problem 27.7% [28], and the prevalence of ADHD in preschoolers at aged 4-6 years was 24.0% [27].

In Thailand, the prevalence of behavioral and emotional problems in children were rather than other international studies, such as the study of psychiatric disorders in children at aged 4-11 years in Canada, that ratio of psychiatric disorders was 18.1%, anxiety 11.79%, depression 7.11%, and ADHD 5.09% [29]. However, LD, ADHD and sleep problem may be common seen in child and can affect to learning problems in long term [28]. These problems are interested for parents, and when they support to cognitive

development in children such Executive Functions (EFs) programs for good cognitive process, thinking, and behavior so that children will reduce to conduct disorders and no use drugs in the future [30,31,32].

The risk assessment of child environmental were showed that the prevalence of family member use drug was the highest at 12.53%, changing marital status of father or mother 6.53%, finding drugs easily in the community 5.16%. The association of environmental factors and behavioral factors in child were showed that poverty of family was related to sleep problem, ADHD, and LD. The presented study be consistent with international study, was found that poverty of family was related to behavioral and emotional problems in preschool [33]. The study in Thailand found that financial problem in family was not related to behavioral problems, but parental divorce, conflict in family, child health problem, parental and family health problems were related to behavioral problems [25].

In addition, education level also associated with drug abuse risks that pre-kindergarten students were more risk drug abuse than kindergarten students may be preschoolers are young children have more extrinsic behaviors.

Conclusion

The prevalence of drug abuse risks among preschoolers at Muang Phuket was 25.86%. These students at risks can find both single and multiple risk factors. LD was the most prevalent in behavioral risk factors. Family member use drug was the most prevalent in environmental risk factors. Poverty of family was related to sleep problem, ADHD, and LD. In addition, pre-kindergarten students had a higher risk of drug abuse than kindergarten students.

Suggestions

The surveillance on drug abuse risks in preschool is the guideline to early detection for preventing drug abuse problems at primary level. The multidisciplinary team should provide appropriate interventions to the students with drug abuse risks in individual, families, schools, and communities also should be monitored the risk in long term for preventing the children into drug abuse problems and conduct disorders in the future.

What is already known on this topic?

The National Survey of Drug Use and Health (NSDUH) reported the younger children in U.S. begin drug abuser at aged 12 years. The Ministry of Public Health's Drug Abuse and Rehabilitation System of Thailand reported the younger children (under 12 years) were drug abuser and registered to receive medical treatments during period 2006-2015, range 12-82 persons. Since the mild 1980s, there were a large number of scientific studies on risk and protective factors to produce positive or negative outcomes

at different stages of a child's development is not always clearly understood. Some signs of risk can be seen at six years of life.

What this study adds?

The presented study used to the risk assessment form for drug abuse problems among preschoolers at Muang Phuket. The prevalence of drug abuse risks was 25.86%. The students with risks can find both single and multiple risk factors. LD was the most prevalent in behavioral risk factors. Family member use drug or substance was the most prevalent in environmental risk factors. Poverty of family was associated with sleep problem, ADHD, and LD. Pre-kindergarten students (aged 2-4 years) had a higher risk of drug abuse than kindergarten students.

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Table 1. Percentage of characteristics (N=3,353)

Characteristics	Number	Percent
Education level		
Pre-kindergarten	1,470	43.84
Kindergarten	1,883	56.16
School location		
In Phuket Municipality	1,512	45.09
Outside Phuket Municipality	1,841	54.91
Age		
2 years	7	0.21
3 years	453	13.51
4 years	1,350	40.26
5 years	633	18.88
6 years	910	27.14

Table 2. Prevalence of drug abuse risks among preschoolers (N=3,353)

Variables	Risk (%)	Mean	SD	Range
Sleep problem	43 (1.28)	1.00	1.49	0-9
Stress	26 (0.78)	0.60	1.19	0-8
Aggression	37 (1.10)	0.40	1.07	0-10
Anxiety	23 (0.69)	0.60	1.21	0-9
Depression	30 (0.89)	0.39	1.03	0-10
Attention deficit hyperactivity	121 (3.61)	0.99	1.76	0-10
Learning disabilities	134 (4.00)	0.99	1.85	0-10
Abuse and neglect	1 (0.03)	0.06	0.33	0-6
Family member use drug or substance	420 (12.53)	0.13	0.33	0-1
Changing marital status of father or mother	219 (6.53)	0.07	0.24	0-1
Conflict in parents or guardians	63 (1.88)	0.02	0.13	0-1
Poverty of family	113 (3.37)	0.03	0.18	0-1
Finding drugs easily in the community	173 (5.16)	0.05	0.22	0-1

Table 3. Percentage of preschoolers with drug abuse risk factors (N=3,353)

Students' s drug abuse risk factors	Number	Percent
Normal	2,686	75.60
1 risk factor	538	16.05
2 risk factors	201	5.99
3 risk factors	74	2.21
4 risk factors	35	1.04
5 risk factors	14	0.42
6 risk factors	4	0.12
7 risk factors	1	0.33
Total risk factors	867	25.86

Table 4. Association between school location, education level, and drug abuse risks (N=3,353)

Variables	Risk (%)	Normal (%)	χ^2	p-value	OR	95% CI
School location						
In-Phuket municipality	395 (11.8)	1,117 (33.3)	0.079	0.78	0.98	0.835,1.139
Outside Phuket Municipality	472 (14.1)	1,369 (40.8)				
Education level						
Pre-kindergarten	464 (13.8)	1,006 (30.0)	43.944	0.00*	0.59	0.505,0.690
Kindergarten	403 (12.0)	1,480 (44.1)				

*Significant (p<0.05

Table 5. Association between environment, sleep problem, LD, and ADHD (N=3,353)

Environment	Behavior problems		Yates' chi square	p value
	Risk n (%)	Normal n (%)		
Family members' substance abuse	Sleep problem			
No	29 (67.44)	2,904 (87.73)	14.15*	0.00
Yes	14 (32.56)	406 (12.27)		
Parents' changing marita l status				
No	37 (86.95)	3,097 (93.56)	2.80	0.09
Yes	6 (013.95)	213 (6.44)		
Conflict between parents/guardians				

Environment	Behavior problems		Yates' chi square	p value
	Risk n (%)	Normal n (%)		
No	41 (95.35)	3,249 (98.16)	0.61	0.43
Yes	2 (4.65)	61 (1.84)		
Family poverty				
No	37 (86.05)	3,203 (96.77)	11.87*	0.00
Yes	6 (13.95)	107 (3.23)		
Easy access to drugs in the community				
No	37 (86.05)	3,143 (94.95)	5.18*	0.02
Yes	6 (13.95)	167 (5.05)		
Family members' substance abuse	ADHD			
No	93 (76.86)	2,840 (87.87)	11.92*	0.00
Yes	28 (23.14)	392 (12.13)		
Parents' changing marital status				
No	103 (85.12)	3,031 (93.78)	12.94*	0.00
Yes	18 (14.88)	201 (6.22)		
Conflict in parents or guardians				
No	111 (91.74)	3,179 (98.36)	24.29*	0.00
Yes	10 (8.26)	53 (1.64)		
Family poverty				
No	109 (90.08)	3,131 (6.88)	14.50*	0.00
Yes	12 (9.92)	101 (3.12)		
Easy access to drugs in the community				
No	110 (90.91)	3,070 (94.99)	3.18	0.08
Yes	11 (9.09)	162 (5.01)		
Family members' substance abuse	LDs			
No	115 (85.82)	2,818 (87.54)	0.21	0.65
Yes	19 (14.18)	401 (12.46)		
Changing marital status of parents				
No	123 (91.79)	3,011 (93.54)	0.39	0.53
Yes	11 (8.21)	208 (6.46)		

Environment	Behavior problems		Yates' chi square	p value
	Risk n (%)	Normal n (%)		
Conflict between parents/guardians				
No	129 (96.27)	3,161 (98.20)	1.66	0.20
Yes	5 (3.73)	58 (1.80)		
Family poverty				
No	128 (95.52)	3,112 (96.68)	0.23	0.63
Yes	6 (4.48)	107 (3.32)		
Easy access to drugs in the community				
No	102 (76.12)	3,078 (95.62)	96.03*	0.00
Yes	32 (23.88)	141 (4.38)		

*Significant ($p<0.05$)