

## ผลของโปรแกรมเพิ่มทักษะชีวิตในการป้องกันยาเสพติด ในวัยรุ่นตอนต้น\*

### Efficacy of Life Skill Improvement Program on Preventing Drug Abuse in Early Teens\*

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#### บทคัดย่อ

วัยรุ่นเป็นวัยท้าท้วงที่ต้องเผชิญกับสิ่งเร้าต่างๆ ที่ส่งผลกระทบต่อสุขภาพ จิตใจ และสังคม ทำให้เกิดปัญหาด้านสุขภาพจิต ความรุนแรงทางเพศ ความไม่สงบทางสังคม และความล้มเหลวทางการศึกษา ดังนั้น จึงจำเป็นต้องพัฒนาทักษะชีวิตของวัยรุ่น ในการป้องกันการใช้ยาเสพติด วัตถุประสงค์ของงานวิจัย เพื่อศึกษาประสิทธิผลของโปรแกรมการพัฒนาทักษะชีวิตในการป้องกันยาเสพติดในวัยรุ่นตอนต้นต่อการเห็นคุณค่าในตนเอง ทักษะการสื่อสารและความสัมพันธ์ระหว่างบุคคล และทักษะการตัดสินใจ การวิจัยแบบทดลองขั้นต้น (pre-experiment) แบบกลุ่มเดียวทดสอบก่อน-หลัง (one group pretest-posttest design) ใช้ในการศึกษาวัยรุ่นอายุ 12-14 ปี จำนวน 19 คน ซึ่งได้จากการเลือกแบบเฉพาะเจาะจง เพื่อเข้าร่วมโปรแกรมเพิ่มทักษะชีวิตในการป้องกันยาเสพติดเป็นเวลา 12 ชั่วโมง โดยมีการแบ่งกิจกรรมเป็น 4 ครั้ง ครั้งที่ 1 ประกอบด้วย 4 กิจกรรม ครั้งที่ 2 ประกอบด้วย 3 กิจกรรม ครั้งที่ 3 ประกอบด้วย 2 กิจกรรม และ ครั้งที่ 4 ประกอบด้วย 3 กิจกรรม เพื่อมุ่งเน้นการพัฒนาทักษะการป้องกันยาเสพติด 3 ด้าน ได้แก่ การเห็นคุณค่าในตนเอง ทักษะการสื่อสารและความสัมพันธ์ระหว่างบุคคล และทักษะการตัดสินใจ เก็บรวบรวมข้อมูลโดยใช้แบบสอบถาม ทักษะชีวิตเพื่อป้องกันการเสพยาเสพติด วิเคราะห์ข้อมูลโดยใช้สถิติเชิงพรรณนา ความถี่ ร้อยละ ค่าเฉลี่ย ส่วนเบี่ยงเบนมาตรฐาน และ Paired sample t-test

การศึกษาพบว่า การเห็นคุณค่าในตนเองเมื่อเปรียบเทียบระหว่างก่อน (Mean=3.86, S.D.=0.32) และหลังเข้าร่วมโปรแกรม (Mean=4.04, S.D.=0.47) มีคะแนนเพิ่มมากขึ้นอย่างมีนัยสำคัญทางสถิติ ( $t (18) = -2.36, p < .05$ ) ทักษะการสื่อสารและความสัมพันธ์ระหว่างบุคคล อยู่ในระดับสูงทั้งก่อน (Mean=1.35, S.D.=0.37) และหลัง (Mean=1.45, S.D.=0.41) เข้าร่วมกิจกรรม ทักษะการตัดสินใจ อยู่ในระดับสูงทั้งก่อน (Mean=1.59, S.D.=0.36) และหลัง (Mean=1.63, S.D.=0.27) เข้าร่วมกิจกรรม แต่ไม่พบความแตกต่างอย่างมีนัยสำคัญทางสถิติของทักษะการสื่อสารและความสัมพันธ์ระหว่างบุคคล และ ทักษะการตัดสินใจ

สรุป โปรแกรมการพัฒนาทักษะชีวิตในการป้องกันยาเสพติดในวัยรุ่นตอนต้น ช่วยพัฒนาการเห็นคุณค่าในตนเอง การพัฒนาโปรแกรมโดยการเพิ่มกิจกรรมที่เน้นการมีส่วนร่วม กิจกรรมที่มีความสนุกสนาน จะทำให้วัยรุ่นมีส่วนร่วมในโปรแกรมเพิ่มมากขึ้น และอาจมีส่วนในการช่วยพัฒนาทักษะการสื่อสารและความสัมพันธ์ระหว่างบุคคล และทักษะการตัดสินใจ ให้มีประสิทธิภาพมากยิ่งขึ้นต่อไป

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## ABSTRACT

Early adolescence is a transitional period for involving in health-risk behaviors. Drug addiction is one of the serious health-risk behaviors that have impacts on adolescence. The purpose of this research was to study the efficacy of life skill improvement program on improving self-esteem, interpersonal relationship and communication skills and decision-making skill of early teens. One group pretest-posttest pre-experimental design was conducted with 19 adolescents aged 12-14 years old. The purposive sampling was used to select adolescents participating in the 12 – hour life skill improvement program. The program composed of 4 sessions: session 1 had 4 activities; session 2 had 3 activities; session 3 had 2 activities and session 4 had 3 activities. The activities in four sessions consisted of three life skill components: self-esteem, interpersonal relationship and communication skills and decision-making skill regarding drug abuse. The questionnaires were used for data collection. Data were analyzed by using frequency, percentage, mean, standard deviation and Paired t-test statistics.

The results showed that the self-esteem scores were at high level and significantly improved after (Mean=4.04, S.D.=0.47) intervention compared to before (Mean=3.86, S.D.=0.32) intervention;  $t(18) = -2.36$ ,  $p<.05$ . The interpersonal relationship and communication skills were at high level both before (Mean=1.35, S.D.=0.37) and after (Mean=1.45, S.D.=0.41) intervention, while the decision-making skill were at high level both before (Mean=1.59, S.D.=0.36) and after (Mean=1.63, S.D.=0.27) intervention. However, there was no significant difference between before and after intervention for the interpersonal relationship and communication skills and the decision-making skill.

Conclusion, the program shows an efficacy on enhancing adolescents' self-esteem to prevent drug abuse. To improve the effectiveness of the program, employing more interactive techniques with enjoyable activities could increases active involvement for adolescence that might help to develop the interpersonal relationship and communication skills and the decision-making skill.

**Keywords :** adolescence, drug abuse, life skills

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## Introduction

Drug addiction is one of the serious problems that have short and long term impacts on adolescence. According to the national drug abuse survey indicate that 2.9 percent of children are already abusing drugs by age 12 or 13. In Thailand in 2016, Thanyarak Institute on Drug Abuse reported that 2.34 percent of addicted patients were age 14 and younger.<sup>1</sup> Early use of drugs increase person's opportunity to develop addiction to drugs, change brains and can lead to other serious problems.<sup>2</sup> In addition, chronic drug use can lead to life-threatening complications as following: cardiac arrest and respiratory failure, intracranial hemorrhage, malnutrition, trauma, depression, psychosis, and increase risk of suicide.<sup>3</sup>

Various psychological and sociocultural factors may cause drug abuse. Psychological factor may include a need to increase self-esteem and the socio-cultural factor may include group or peer pressure.<sup>3</sup> As various factors influencing drug abuse in adolescents, the prevention program should include the skill- based training to help them dealing with this issue<sup>4</sup> and to promote drug abuse preventive behaviors among adolescents. Earlier findings reported that the life skill trainings were effective methods to prevent teenagers from drug abuse.<sup>5-6</sup> The concept of life skills involves a group of socio-psychological and interpersonal skills that help people to make informed decisions

making, solve problems, think critically and creatively, communicate effectively, build healthy relationship, and develop coping skills and self-management skills. The World Health Organization (WHO) describes the life skills for skills-based health education including communication and interpersonal skills, decision-making/problem-solving skills and coping and self-management skills.<sup>7</sup>

Adolescence is a transitional period for involving in health-risk behaviors that may lead to death and disability. Low-income adolescents in urban areas are easily exposed to several risk factors. From youth risk behavior survey in middle school students at one public school in Nonthaburi province, Thailand, it was found that 4.1 percent of adolescents were already using drug.<sup>8</sup> The implementation of the extracurricular course of life skill improvement program during school break might be protective factors for adolescents. In this study, the life skill training program focused on three main components, including the interpersonal relationship and communication skill, the decision-making skill and helps adolescence develop high self-esteem to deal with the drug abuse issue. Therefore, the purpose of this research was to study the efficacy of life skill improvement program on improving the self-esteem, the interpersonal relationship and communication skill and the decision-making skill of drug addiction in early teens.

## Methods

### Design and samples

The study was a one group pretest-posttest pre-experimental design. The sample size was calculated by using the power analysis for Paired t-tests. The effect size was 0.5. The alpha for the test was set at .05 to achieve power of .70. Thus, the sample size of this study was 21 participants. The 10% of samples was added in case of drop-out, so the final number was 23.

Samples were adolescents aged 12-14 years old who study in one public school in Nonthaburi province, Thailand. The purposive sampling was used to select adolescents to participate in the 12 - hour life skill improvement program based on WHO's life skills for skills-based health education<sup>7</sup>. Selected skills consisted of three components of life skills including the self-esteem, the interpersonal relationship and communication skill and the decision-making skill of drug addiction.

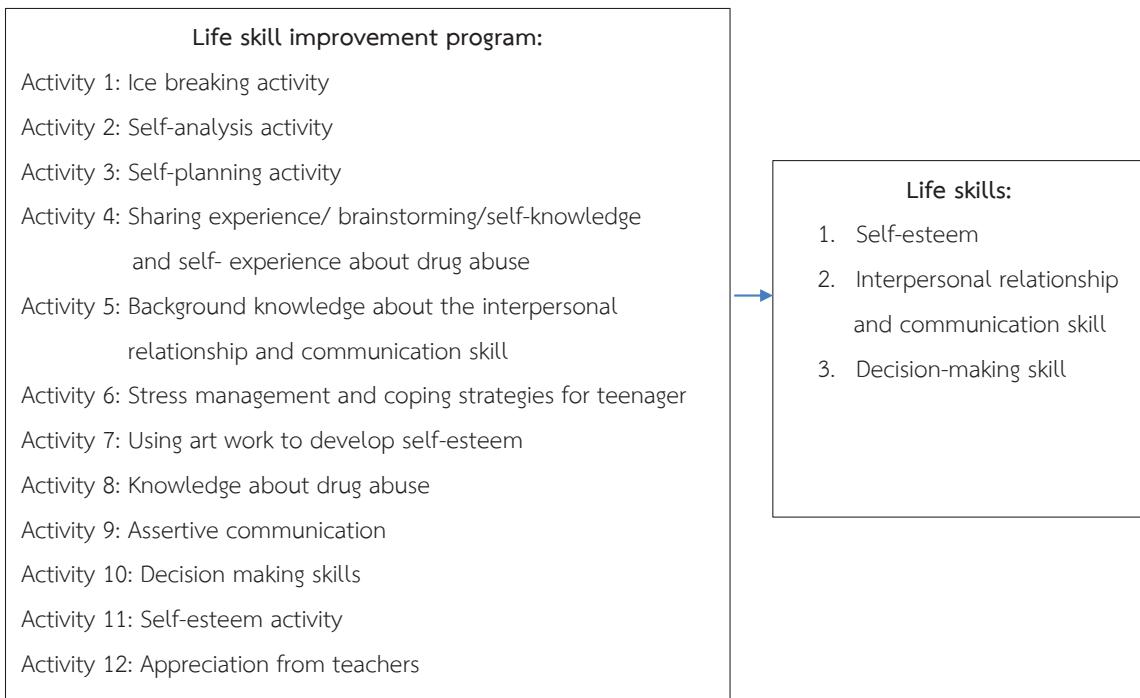


Figure 1 Conceptual framework of this study

## Research instruments

The tools used for data collection were developed by Nakaram9 including demographic information, the self-esteem, the interpersonal relationship and communication and the decision-making questionnaires. The demographic information questionnaire includes 13 questions relating to information such as personal characteristics information, household income, relationship in family, grade point average and risk behaviors among friends. The self-esteem scale is 27-item instrument with 5-point Likert's scale ranging from "I am totally agree" to "I am totally disagree". The self-esteem mean scores were classified in three levels; low (1.00-2.32), moderate (2.33-3.66) and high level (3.67-5.00). The reliability test score based on Cronbach's Alpha Coefficient was .86. The interpersonal relationship and communication questionnaire (7 items) and the decision-making questionnaire (10 items) are multiple choice questionnaires. Participants were asked to select the best answer. The response was scored from 0-2 and the mean scores were interpreted in three levels; low (0.00-0.66), moderate (0.67-1.33) and high level (1.34-2.00). The reliability test score was .54 and 0.88, respectively.

## Data collection

Initially, the study was approved by the Ethics Review Board Committee for Research Involving Human Subjects, Boromarajonani College of Nursing, Changwat Nonthaburi, Thailand. Further, the permission to conduct this study was given by the school principal. The students received details about the study and the information sheet, and assent forms. Their parents or guardians received consent forms for their children to join the study.

After getting the permission, participants received the life skill improvement program consisting of 4 sessions during 2 consecutive weekends during school break to avoid disturbing their study times. Data collection was conducted before and after 2 weeks of this program. The activities of the Life skill improvement program are outlined in Table 1.

**Table 1** The activity of the Life skill improvement program

Period	Activity
Session 1	<p><b>Activity 1: Ice breaking activity</b> (approximately 30 minutes)</p> <p>Week 1</p> <p>Dividing participants into small groups: Playing games to get to know group members</p> <p><b>Activity 2: Self-analysis activity</b> (approximately 45 minutes)</p> <p>Group activity: Drawing the picture to describe about the adolescents' image and describe how they perceive about themselves such as their strength and weakness, things that they like and don't like</p> <p><b>Activity 3: Self-planning activity</b> (approximately 45-60 minutes)</p> <p>Group activity : discussion about their goal, factors that can prohibit them to reach the goal and their way to face the problems</p> <p><b>Activity 4: Sharing Experience/brainstorming</b> (approximately 45-60 minutes)</p> <p>Group activity: discussion and brainstorm in order to share self-knowledge and self- experience about drug abuse</p>
Session 2	<p><b>Activity 1: Background knowledge about the interpersonal relationship and communication skill</b> (approximately 60 minutes)</p> <p>Week 1</p> <p>Lecture of background knowledge about the interpersonal relationship and communication skill; group activity sharing the experience and practicing how to communicate with other people</p> <p><b>Activity 2: Stress management and coping strategies for teenager</b> (approximately 60 minutes)</p> <p>Lecture about stress management; the understanding about stress and positive methods to reduce stress</p> <p><b>Activity 3: Using art work to develop self-esteem</b> (approximately 60 minutes)</p> <p>In group, the participants create art work and explain about their work. Teachers provide positive feedback.</p>

**Table 1** The activity of the Life skill improvement program (Cont.)

Period	Activity
Session 3	<b>Activity 1: Knowledge about drug abuse</b> (approximately 90 minutes)
Week 2	<p>The trainer led the group to the session by asking questions “How much problems relating to drug abuse in your community?” “What kind of drugs?” “How do you feel about those problems?”. The children were divided into small groups of 5-6. They discussed about a picture of a seller and drug abusers caught by policemen. The group was assigned 10 minutes to brainstorm and discuss about how drug spread, cause of the drug abuse, and the negative effects of drug abuse on community, family and themselves. A representative of each group presented their work for 5 minutes.</p> <p><b>Activity 2: Assertive communication</b> (approximately 90 minutes)</p> <p>Lecture and group discussion about assertive communication using the scenario; identify the risk relating to drug addiction, how to communicate to get help; refusal techniques.</p>
Session 4	<b>Activity 1: Decision making skills</b> (approximately 75 minutes).
Week 2	<p>Knowledge about how to make decision relating to drug abuse, especially when someone offered drugs. Participants practiced how to solve the problems and make decision based on the scenario.</p> <p>Divide the trainees into small groups of 5-6. The group members had 15 minutes to discuss a scenario regarding the widespread of drug abuse and how they will protect their family and themselves from drug abuse problems. Each group then reported their results for 15 minutes.</p> <p><b>Activity 2: Self-esteem activity</b> (approximately 60 minutes).</p> <p>Using simulation such as VDO clip of pregnancy woman giving birth, reflection about bonding and attachment with mother and their care givers</p> <p><b>Activity 3: Appreciation from teachers</b> (approximately 45 minutes).</p> <p>After all the activities in the program finish, the participants received gift and a certificates as positive feedback and support from teachers.</p>

**Data analysis**

Demographic data were analyzed using frequency and percentage. The self-esteem, the interpersonal relationship and communication skill and the decision-making skill of drug abuse were analyzed by using mean and standard deviation. The mean difference of self-efficacy, interpersonal relationship and communication skill and the decision-making skill between before and after intervention was analyzed by using Paired t-test. All the statistical analyses of the data were conducted using SPSS (Version 24.0).

**Results**

Four out of 23 participants provided incomplete data. Thus, 19 participants remained in final analysis. The program included 7 boys (36.8%) and 12 girls (63.2%). Most of them were aged 13 years old (84.2%) and stayed with their mother and father (73.7%). Their parents stayed together (73.7%) and had two children (36.8%). Majority perceived that their families had good relationship (63.2%). Child-rearing style of their parents was strict sometimes and gave them some freedoms (84.2%). The demographic characteristics of participants are shown in Table 2.

**Table 2** Demographic characteristics of participants (n=19)

Personal characteristics		Number	Percentage
Gender			
	Male	7	36.8
	Female	12	63.2
Age (years old)			
	12	2	10.5
	13	16	84.2
	14	1	5.3
Currently staying with			
	Mother and father	14	73.7
	Mother	1	5.3
	Father	4	21.1

**Table 2** Demographic characteristics of participants (n=19) (Cont.)

Personal characteristics	Number	Percentage
Family status		
Mother and father stayed together	14	73.7
Mother died	1	5.3
Father died	1	5.3
Separated/divorced	3	15.8
Number of sibling (including participants)		
One child	1	5.3
Two	7	36.8
Three	2	10.5
Four	6	31.6
Five	3	15.8
Relationship in family		
Good relationship	12	63.2
Sometimes quarrel	4	21.1
Often quarrel	1	5.3
Mother and father separated	2	10.5
Child-rearing style of parents		
Very strict; had no freedom	1	5.3
Strict sometimes; had some freedoms	16	84.2
Not strict; easy going	1	5.3
Others	1	5.3
Grade Point Average		
1.00-1.49	2	10.5
1.50-1.99	2	10.5
2.50-2.99	7	36.8
3.00-3.49	7	36.8
More than 3.5	1	5.3

**Table 2** Demographic characteristics of participants (n=19) (Cont.)

Personal characteristics	Number	Percentage
Family income (Thai Baht)		
<= 5,000	4	21.1
5,001-10,000	7	36.8
10,001-15,000	3	15.8
15,001-20,000	2	10.5
More than 20,000	3	15.8
Causes of stress or anxiety in daily life		
Family	1	5.3
Study	9	47.4
Insufficient money	3	15.8
Friend of opposite sex	2	10.5
Have no stress or anxiety situation	4	21.1
People to get advice when having problems		
Mother and father	11	57.9
Mother	3	15.8
Sibling	1	5.3
Relative	2	10.5
Friend	2	10.5
Risk behaviors among your friends (can answer more than 1 risk)		
Smoking	7	36.8
Dinking	9	47.4
Using drug	2	10.5
Learning sources about drug abuse in school (can answer more than 1 source)		
General subject	5	26.3
Health education subject	10	52.6
Guidance subject	2	10.5
Television/VDO at school	8	42.1
Participate in external classroom activity	12	63.2

In addition, the study found that the self-esteem scores were significantly higher ( $M=4.04$ ,  $S.D.=0.47$ ) than before ( $M=3.86$ ,  $S.D.=0.32$ ) receiving intervention ( $t (18) = -2.36$ ,  $p = 0.03$ ), as shown in Table 3.

**Table 3** Comparison in self-esteem before and after intervention (n=19)

Outcome	Pretest			Posttest			95% CI for Mean Difference	t(df)	p-value
	(n=19)		Level	(n=19)		Level			
	Mean	S.D.		Mean	S.D.				
Self-esteem	3.86	0.32	High	4.04	0.47	High	-0.34, -0.02	-2.36(18)	.03*

\* $p<.05$

The scores of the interpersonal relationship and communication skill were at moderate level (Mean=1.45,  $S.D.=0.41$ ) and non-significantly different compared to before (Mean=1.35,  $S.D.=0.37$ ) intervention. The scores of the decision-making skill were at high level and non-significantly different (Mean=1.63,  $S.D.=0.27$ ) than before (Mean=1.59,  $SD=0.36$ ) intervention, as shown in Table 4.

**Table 4** Comparison in interpersonal relationship and communication skill, and decision-making skill before and after intervention (n=19)

Outcome	Pretest			Posttest			95% CI for Mean Difference	t(df)	p-value
	(n=19)		Level	(n=19)		Level			
	Mean	S.D.		Mean	S.D.				
Interpersonal									
relationship and communication skill	1.35	0.37	High	1.45	0.41	High	-0.28, 0.07	-1.27(18)	.22
Decision-making skill	1.59	0.36	High	1.63	0.27	High	-0.18, 0.10	-0.62(18)	.54

## Discussion

According to the findings, there is a significant improvement of self-esteem scores between before and after intervention but the interpersonal relationship and communication skill and the decision-making skill were not significantly different. The results of this study was consistent with Nakaram<sup>9</sup> who found that the self-esteem in the experimental group changed more positively after intervention, but there was no different in the interpersonal relationship and communication skill and the decision-making skill. In this study, it could be inferred that the program includes varieties of activities to promote positive self-esteem among adolescents. There were several factors associated with low self-esteem, including low family income, marital disharmony in family, child physical abuse, bullying in school, and poor school performance<sup>10</sup>; life skill improvement efforts with various activities could help to increase self-esteem in adolescents.

In this study, there was slightly increased in the scores of the interpersonal relationship and communication skill and the decision-making skill after intervention. The results of this study were consistent with Panpin<sup>11</sup>

which found that after two and six weeks of intervention there was no significant difference of decision making skill. These might be due to the program in this study including long time of lecture. Participants might lose concentration with the activities. In addition, there was limited time for practice to develop these skills. As a result, when teenagers face different kinds of scenarios, they might have difficulty to apply the skills in the timely limited situation. As the skill-based interventions are the effective methods to prevent teenager from drug addictions,<sup>12</sup> it is important to improve these skills for teenagers. The integrating fun activities allowing teenager to practice in different situations might help improving their skills.

## Conclusions

The life skill improvement program shows an efficacy on enhancing adolescents' self-esteem to prevent drug abuse. In order to ensure the effectiveness of the program and develop the interpersonal relationship and communication skills and the decision-making skill, employing more interactive techniques with enjoyable activities could increases active involvement for adolescence and help them improving their skills.

## REFERENCES

1. Thanyarak Institute on Drug Abuse. Number and percentage of all addicted patients in Thanyarak Institute on Drug Abuse separated by Fiscal Year 2012- 2016 [online]. 2016 [cited 2017/4/9]; Available from: [http://www.thanyarak.go.th/thai/index.php?option=com\\_content&task=view&id=2362&Itemid=61](http://www.thanyarak.go.th/thai/index.php?option=com_content&task=view&id=2362&Itemid=61)
2. National Institute on Drug Abuse. Preventing Drug Abuse: The Best Strategy [online]. 2014 [cited 2017/1/1]. Available from: <https://www.drugabuse.gov/publications/drugs-brains-behavior-science-addiction/preventing-drug-abuse-best-strategy>
3. Meadows-oliver. Pediatric nursing made incredibly easy! 2nd ed. Wolters Kluwer, 2015.
4. National Institute on Drug Abuse. Understanding Drug Abuse and Addiction: What Science Says [online]. 2016 [cited 2017/4/9]. Available from: <https://www.drugabuse.gov/publications/teaching-packets/understanding-drug-abuse-addiction/section-i>
5. Crowley DM, Jones DE, Coffman DL, Greenberg MT. Can We Build an Efficient Response to the Prescription Drug Abuse Epidemic? Assessing the Cost Effectiveness of Universal Prevention in the PROSPER Trial. *Prev Medicine*, 2014;(62):71-7. doi:10.1016/j.ypmed.2014.01.029
6. Spoth R, Trudeau L, Redmond C, Shin C. Replication RCT of Early Universal Prevention Effects on Young Adult Substance Misuse. *J Consul Clin Psychol*, 2014;(82): 949-63. doi:10.1037/a0036840.
7. World Health Organization. Skills for health, Skills-based health education including life skills: An important component of a child-friendly/health-promoting school [online]. n.d. [cited 2017/4/9]. Available from: [http://www.who.int/school\\_youth\\_health/media/en/sch\\_skills4health\\_03.pdf](http://www.who.int/school_youth_health/media/en/sch_skills4health_03.pdf)
8. Boonpleng W, Sriwongwan W, Norapoompipat A, Pisaipan P. Risk Behaviors and Behavioral Problems of Adolescent: A Case Study of School Children in Nonthaburi Municipality. Proceedings of the diversity in health and well-being conference, 25th -26th July 2015, Pitsanulok, Thailand.
9. Nakaram, N. The effectiveness of life skill development program for drug addiction prevention of secondary school students in Phra Nakhon Sri Ayutthaya province [online]. 2016 [cited 2017/4/19]. Available from: [http://thesis.swu.ac.th/swuthesis/Hea\\_Ed\(M.S.\)/Narin\\_N.pdf](http://thesis.swu.ac.th/swuthesis/Hea_Ed(M.S.)/Narin_N.pdf).

10. Ojo MA, Akintoyese O, Adenibuyan P, Adegbohun AA, Abiri K. Relationship between poor self-esteem and adolescent substance use [online]. 2013 [cited 2017/4/6]. Available from: <https://www.drugabuse.gov/international/abstracts/relationship-between-poor-Self-esteem-adolescent-substance-use>
11. Panpin P. Life skill development program for preventing drug abuse in primary school students, Chiang Rai province [online]. 2008 [cited 2017/11/60]. Available from:[http://library.cmu.ac.th/digital\\_collection/theses%20/fulltext.php?id=30133&word=%E0%B8%A2%E0%B8%B2%E0%B9%80%E0%B8%AA%E0%B8%9E%E0%B8%95%E0%B8%B4%E0%B8%94&checkfield=SUBJECT&select\\_study=&condition=2&search=9&philosophy=&master=](http://library.cmu.ac.th/digital_collection/theses%20/fulltext.php?id=30133&word=%E0%B8%A2%E0%B8%B2%E0%B9%80%E0%B8%AA%E0%B8%9E%E0%B8%95%E0%B8%B4%E0%B8%94&checkfield=SUBJECT&select_study=&condition=2&search=9&philosophy=&master=)
12. Faggiano F, Vigna-Tagliati FD, Versino E, Zambon A, Bonaccino A, Lemma P. School-based prevention for illicit drugs use: A systematic review. Preventive Medicine, 2008; 46(5): 385-96.