

Strategies to Prevent Drug Abuse among Primary School Students

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This participatory action research aimed to develop strategies for drug prevention, which were specific to students' life style and social contexts. The focus of this research was on providing knowledge and developing appropriate attitudes about drug abuse and essential skills for drug abuse prevention. One hundred and thirty three students in one primary school in the North-eastern part of Thailand were selected through purposive sampling. Data was collected using demographic data sheets and questionnaires to determine knowledge, attitude and drug addiction prevention practices. The study revealed that primary school students, under teacher supervision, were able to create and maintain a campaign against drug abuse for a period of three months. Campaign activities included 1) providing health education by a variety of means such as radio, video, essays, poetry, drawing competitions, poster presentations, songs, exhibitions, and parades and 2) organizing events such as concerts, role playing, singing and dancing contest. Paired *t* test was used to determine the difference in knowledge, attitude, and drug abuse prevention score of primary school students before and after participation in this study. Results showed that there were statistically significant differences, at $p < 0.05$, in the average knowledge, attitude, and drug addiction prevention practices among the sample. The research findings revealed that participation raised the student's awareness of drug abuse prevention.

Keywords: drug abuse, prevention, knowledge, attitude, practice, primary school students

Drug abuse critically and negatively affects the worldwide population. According to United Nation Information Office (2004), there were almost 200,000 drug-induced deaths in 2000. In Thailand drug abuse has caused a serious social problem (Daenseekaew, Srisontisuk, Thongkrajjar, & Sriruecha, 2005) with five percent of the Thai population reported to be metamphetamine users (Fact sheet on the Royal Thai Government's Anti-narcotic Drug Policy, 2010). The number of drug users gradually increased from 575,312 to 605,095 between 2007 and 2009. It has also been found that the number of drug users who were admitted for treatment has increased both in the Central and Northeastern part of Thailand (Ministry of Social Development and Human Security, 2009). Drug abuse causes a range of problems at the individual,

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family and national levels. Individually, drug use results in the drug users having physiological and psychological health deterioration, such as alteration of consciousness, hallucination, psychosis, or death (Madrid & Hall, 2001). At the family, community and national levels, drug abuse problems lead to ineffectiveness and uncertainty within society which negatively affects the quality of life of its people.

In Thailand, the majority of drug users are young people who started using drugs when they were adolescents (Ministry of Social Development and Human Security, 2009). It has become increasingly apparent that pre-teenage children experience drug abuse (Boreham & Shaw, 2001). De Silva and Fonseka (2008) reported that more than 70% of drug addicts started using drugs when they were in the age group of 10-20 years old. For example, in Scotland one in ten (11.2%) children aged between eleven to twelve years old have experimented with illegal drugs (McKeganey & Norrie, 1999). Since 2008, young adolescents aged between 15 and 19 years old are the major group of drug users who have been admitted for drug abuse treatment (Ministry of Social Development and Human Security, 2009). Motivations for using drugs included wishing to experiment, and being seduced by drug users and drug dealers (National Institute on Drug Abuse, 2003). The important causes of drug abuse among children and adolescents include a lack of knowledge, having inappropriate attitudes about illegal drugs and lack of skills to prevent themselves from becoming addicted to drugs (Mcintosh, McDonald, & McKeganey, 2003). Factors facilitating young drug users, such as peer pressure, emotional immaturity, and lack of self esteem, mean they use drugs to make themselves happy and to enjoy their lives. In addition, peer pressure and a need to be part of group is one of the key factors of drug abuse among young people (Zhuravleva, 2002). According to Lende & Smith (2002), social phylogeny including social inequity, dominance, and social dependence lead to substance addiction. McCrystal, Purcy and Higgins (2007) concluded that antisocial behavior, disaffection with school, and poor communication with their parents/guardians caused high level of drug abuse among young people.

Preventing young people from taking drugs is important as compulsory drug treatment often fails to reduce drug use (Kaplan, Fairbarin, Hayashi, Wimolchaiporn, Zhang, & Wood, 2010) and can cause violations of human rights (Thailand's war on drugs, 2008). In order to prevent drug abuse, children and adolescence need to be a priority for health promotion work. Knowledge is necessary to help people change their attitudes and develop means to look after themselves (Siriwatanamethanon, Boddy, Dignam, &

Nuntaboot, 2009). Supporting children so they have enough knowledge, appropriate attitudes and also facilitate children to develop drug abuse prevention skills are essential. Strategies that support people so that they are able to prevent themselves from abusing drugs consist of providing knowledge about substance abuse and means of prevention, promoting appropriate beliefs, attitudes, and values about drug addiction, encouraging children to think and solve problem, facilitate participatory leaning opportunity, support self control and personal mastery to prevent drug abuse, and community-based programs of drug abuse prevention (Scottish Medical Careers Fair, 2004). It is concluded that strategies for drugs education needed to be developed to fit within each social context (McCrystal & Winning, 2009). Therefore, a model to support primary school students who are prone to be drug users is needed to be developed to fit with primary school student in Northeastern Thailand. A drug abuse prevention program has been developed with cooperation from students and their teachers which encourage students to learn and practice drug abuse prevention methods, to gain and maintain appropriate attitudes and to develop essential skills about drug abuse prevention.

Research Objectives

1. To develop drug prevention strategies that fit with the participants' context.
2. To reflect the effect of development program on knowledge, attitudes and practice regarding drug abuse prevention among primary school students before and after the drug abuse prevention campaign.
3. To determine the drug abuse prevention campaign's activities and performance of primary school students.

Research Methodology

Research design

This study was based on the participatory action research approach using one group pretest-posttest research design. Participatory action research was conducted through a cycle of planning, action, and reflection to identify effective interventions to develop strategies to prevent drug abuse among the participants. The model for participatory action research is a community intervention to initiate collaborations, involve the target population, and include reflection (Kelly, 2005). Participatory action research is one of the

most appropriate methods to develop a program suited to a context of the participants.

Research setting and sample

This study was conducted in a primary school in Northeastern Thailand. Following human ethics approval, primary school students were invited to participate in this study by purposive sampling. Prior to enrolment, eligible students and their parents were informed that they could freely access, participate in or withdrawal from the research at any time. One hundred and thirty three students who were in grades 4-6 agreed to participate in the study. The students undertook the training program under teachers' and researchers' supervision. Under teachers' supervision, students initiated and conducted activity and engaged in activities for drug abuse prevention throughout 3 month trial period, from June to August, 2009.

Data collection and research instruments

Initially interviews were conducted with the students for problem identification. The interview focused on knowledge, attitudes, and drug abuse prevention practice questionnaires. The researchers qualitatively analyzed the interview data to identify the issues that needed to be addressed. Three data sources were used to monitor changes in drug abuse prevention behavior of the participants. First, knowledge, attitude, and drug abuse prevention practice questionnaires were used. Second, a semi-structured observation sheet was used to record students' activities and group atmosphere during the activity sessions. Third, the content of interviews with the participants was recorded in a communication log sheet.

The research instruments in this study consisted of 1) collecting data instruments which were demographic information sheet, questionnaires about knowledge, attitude, and drug abuse prevention practices of primary school students, and open-ended interview form which was used to gather qualitative data; and 2) handbook which was used as an intervention instrument named "plan for drug abuse prevention campaign in primary school". The details of each instrument are as follows.

1. Demographic information sheet developed by the researcher included age, sex, grade point average (GPA), parents' occupation, current living arrangement, personal problem, problem solving strategies, income per day, sufficiency of income per day, and free time activities.

2. Knowledge, attitude, and drug abuse prevention practice questionnaires which had been developed by Siriwatanamethanon (2009) contained 30 items. The 30 items were divided into three dimensions. Dimension 1-knowledge of drug addiction contains 10 items. Knowledge scoring was marked 1 for correct and 0 for incorrect. The highest score was 10, and the lowest score was 0. The reliability was 0.74. Dimension 2- attitude towards drug abuse prevention contained 10 items. Attitude scoring was marked 1 for correct and 0 for incorrect. The highest score was 10 and the lowest score was 0. The reliability was 0.72. Dimension-3 drug abuse prevention practice contains 10 items. A three-point Likert scale was used to range the score. Item responses ranged from 0-3 which represented the students' agreement or disagreement on the item. Practice scoring was marked 3 for always performing, 2 for sometimes and rarely, and 0 for never perform. The total score ranged from 0 to 30. The reliability was 0.72.

3. Open-ended interview guide was developed by the researchers to be used as a conversation guideline to gain primary school students' opinions about drug abuse prevention campaign, activities and performances.

4. The handbook of drug abuse prevention developed by the researchers consists of 1) handbook information about drug abuse, including information on types of illegal drugs, effects of drug addiction on body, mind, and society, and ways to prevent drug abuse; 2) problem solving handbook called 'It happened in a small village, how do adolescents experienced drug abuse; 3) preventing drug abuse skills training program; and 4) outline to develop campaign to prevent drug abuse.

Research Implementation

The research proposal was submitted to and approved by ethics committee of the university. After gaining permission from the school principal, the researchers met with primary school students to explain the nature of the study and study procedures. Informed consent was obtained from the students and from their parents. During implementation phase, students were assigned to six groups and undertook training sessions and group discussions about drug abuse prevention. The aims of the training sessions were to facilitate students to gain knowledge, appropriate attitudes, and knowledge about essential skills to prevent drug abuse. Data was collected by questionnaires, to attain scores of knowledge, attitude and drug abuse practice scores. All activities of the primary school students during the campaign period were recorded. The activities included providing health education via the use of radio, video, essays, poetry, drawing competitions,

poster presentations, songs, exhibitions, parades, and bulletin flyers about drug abuse. Organizing events such as concerts, role playing, singing and dancing contests were also recorded.

Data analysis

Frequency and percentage were calculated to describe the general characteristics of primary school students. Mean and standard deviations were calculated to determine the knowledge, attitude, and drug abuse prevention practices of the students.

Paired *t*-tests were used to compare statistical differences at $p = 0.05$ of mean score of knowledge about drug abuse prevention, attitudes about drug abuse, and drug abuse prevention practices before and after participation in the training sessions.

Content analysis was used to analyse the students' activities and performance about drug abuse prevention during the three month trial period.

Research Findings

This study was a participatory action research (PAR) on one group pretest-posttest that examined the effects of a drug abuse prevention program on knowledge, attitude, and drug abuse prevention practice in primary school students. The findings from this study revealed several interesting points which will be presented as follows: 1) characteristics of primary school students; 2) comparisons of average scores on knowledge, attitude, and drug abuse prevention practices of the students; and 3) details of activities and performance throughout the three month trial period.

1. Characteristics of primary school students

The participants in this study were 133 school children (Table1). Fifty-five participants were male (42.1%) and seventy-eight were female (57.9%) aged between 10-15 years old (mean=12.98, SD=1.54). The average grade point of the participants was 2.75. Most of the students' parent occupation was employee (45.9%). Most of the student lived with their parents (46.6%). Daily income of the students was from 5-150 baht (mean=24.47 baht). Most of the students had sufficient daily income (95.5%).

Table 1

Demographic Characteristics of Participants (n = 133)

Demographic characteristics	Number	Percentage
Sex		
Male	55	42.1
Female	78	57.9
Aged ($M = 12.98$, $SD = 1.54$)		
10-12 years	82	61.6
13-15 years	51	38.4
Average grade point = 2.75		
Parents' occupation		
Employee	61	45.9
Farmer	30	22.6
Merchant	27	20.3
Civil servant	6	4.5
Others	9	6.8
Housemate		
Parents	62	46.6
Other family members	51	38.4
Mother	10	7.5
Father	8	6.0
Alone	2	1.5
Daily income ($M = 24.47$, $SD = 18.23$)		
5-15 baht	28	21.0
20-50 baht	101	76.0
100-150 baht	4	3.0
Daily income sufficiency		
Sufficient	127	95.5
Insufficient	6	4.5

1.1 Problems and problem solving of participants

The majority of students had conflict with others (33.3%) and consulted with their parents was a means of problem solving (75.9%). The participants did housework activity during their free time (38.3%), played football (24.1%), read (18.8%), and five students (3.8%) were employed (Table 2).

Table 2

Problems and Problem Solving of Participants (n = 133)

	Number	Percentage
Causes of problems		
Conflict with others	44	33.3
Unhealthy	39	29.4
Learning difficulty	17	12.5
Others	33	24.8
Key person of problem solving		
Parents	101	75.9
Teachers	16	12.0
Friends	10	7.5
Others	6	4.6
Free time activities		
Housework	51	38.3
Played football	32	24.1
Homework	25	18.8
Recreation activities	20	15.0
Working for wage	5	3.8

2. Comparisons of average scores on knowledge, attitude, and drug abuse prevention practice of the students

Comparison of average scores on knowledge, attitude, and drug abuse prevention practice of primary school students before and after training program by using the *t*-test.

The *t*-test showed statistically significant differences ($p < 0.05$) between the average scores of knowledge, attitude, and drug abuse prevention practice from primary school students before and after participating in the training program. The results showed that after participating in the training program to prevent drug abuse, the mean scores of knowledge, attitude and practice were increased from 7.52 to 7.88, 7.08 to 7.47, and 19.19 to 19.59 respectively, as showed in (Table 3). Therefore, the scores after training were higher than before training due to ongoing drug abuse prevention campaigns and being monitored and supervised by their teachers

Table 3

Comparison of Average Knowledge, Attitude, and Drug Abuse Prevention Practice Score Before and After Participation in the Program

Dimensions	Pretest		Posttest		t-test	p-value
	mean	S.D.	mean	S.D.		
knowledge	7.52	1.79	7.88	1.51	-3.176	0.002*
Attitude	7.08	1.72	7.47	1.50	-3.562	0.001*
Practice	19.19	3.44	19.59	3.35	2.855	0.005*

*Statistical significant difference $p < 0.05$

3. Activities and performance throughout the three months trial period

The students were encouraged to initiate a variety of activities under the teachers' supervision after participating in the training program to prevent drug abuse. A number of strategies were created to conduct the school campaign to prevent or reduce drug abuse risk behaviors. Activities employed during the campaign included 1) providing health education through radio, video, essays, poetry, drawing competitions, poster presentations, songs, exhibitions, parades, and bulletin flyers on drug addiction and 2) organizing event such as concerts, role playing, singing and dancing contests. Creative events by the students included:

1. A one-day exhibition of students' activities and created media of the student was organized with stage activities and contests at the school. The aim of the exhibition was to bring students' attention to the prevention of drug abuse risk behaviors, among students, in their contexts.

2. Stage activities covered drug abuse prevention strategies such as ways of getting addicted to drugs, techniques to avoid drug addiction, means to help others avoid drug abuse, which integrated with concert role playing, singing, and dancing aimed to reduce drug abuse-risk behaviors of the students.

3. Contests were held for drawing to deliver a message against addiction-risk behaviors, writing letter to avoid drug addiction and writing short stories to prevent drug abuse.

Through qualitative data gathered through the written stories and pictures portrayed during the students' activities reflected that the students gained knowledge, developed appropriate attitudes about illegal drugs, and knew how to avoid drug abuse, which could be seen through the pictures and stories as following.

Pictures showed the students' knowledge, attitude, and practices related to drug addiction including 1) type of substance abuse including alcohol, cigarette, heroin, marijuana, inhalant, and metemphetamine. 2) effects of drug abuse on individuals and families such as agitate, madness, and reduction of cognitive ability, conflict in family, and on community such as violence and crime. 3) means of drug use including inhale, injection, and intake and, 4) ways of prevention including sport, denying use, and working in a group for the community.

Narratives through students' essays revealed the students' views about the negative effects of substance abuse at different levels including individual, family and nation. At personal level, drug abuse lead to physiological health problems such as fatigue, bad appearance, and psychological health problems such as violent personality, antisocial behavior, leading to unsafe communities, under-development of Thailand and reduction of nation income. Some narratives showed the students' opinion about causes of drug addiction such as living in community with drug abuse problems, persuading by drug users, and conflict in family. Some writing indicated ways to avoiding drug addiction such as sport, listening to music, reading, playing music, gardening, doing housework and getting involve in welfare activities in communities. Some stories also reflected that parents were significant persons to protect them from drug abuse. Finally, preventing drug abuse needs all the people in the community to participate and cooperate to achieve a maximum level of social wellness.

Discussion

The findings of the study revealed that after the students participated in the program to prevent drug abuse, their knowledge, attitudes and prevention of drug abuse improve in a positive direction. The students' knowledge and understanding about drug addiction and drug abuse prevention were clearly improved which was observed through students' activities as discussed

above. Knowledge and understanding about drug addiction is necessary in order to educate people to prevent drug addiction (Cuijpers, 2003). Clearly understanding the negative effects of substance abuse can change attitudes and reduce the risk of behavior leading to alcohol abuse (Planken & Boer, 2010). Therefore providing appropriate information to improve people's understanding about drug addiction is a key part of drug abuse prevention.

There were several strategies to support the participants in this study to gain knowledge, develop appropriate attitudes and proper skills to prevent drug abuse. The aims of this study were to encourage and support children to learn and gain life skills to prevent drug abuse. It has been suggested that the life skills training should provide primary school students with accurate views of drug addiction (Anderson & Moore, 2009). The strategies to encourage primary school students to have life skills which are essential to prevent drug abuse support primary school students who worked together with aims to learn and use knowledge to organize drug prevention activities in their school. These activities enabled the students to understand and show their life skills to prevent drug abuse through a range of activities such as role play, essays, and poster presentations. The findings concur with the recommendation of the National Institute of Drug Abuse that supporting children to develop life skills is a key aspect of drug abuse prevention among children and adolescents (National Institute on Drug Abuse, 2003; Lloyd, Joyce, Hurry & Ashton, 2000). In order to evaluate the participants' life skills about drug prevention, this study supported primary school students to initiate and conceptualize their understanding through many activities, in particular drawing and writing. Drawing and writing can help explore children's conceptions and enable them to have a clear understanding about drugs and drug abuse risk behavior (Lloyd, Joyce, Hurry, & Ashton, 2000; Peter, Kok, Ten Dam, Buijs, & Paulussen, 2009).

It can be founded that young people with using essential life skills strategies campaign for drug addiction prevention are likely to protect themselves from drug abuse. A systemic review of the literature on drug-use prevention with vulnerable young people concluded that life skills training can reduce drug use (Row & Becker, 2005). In the US, life skill training is one of the most popular approaches for school-based substance abuse prevention programs (Botvin, Griffin, Paul, & Mccaulan, 2003; Epstein, Collins, Thomson, Pancella & Pauley, 2007). Life skill training is the most effective way to reduce childhood drug abuse (National Institute on Drug Abuse: NIDA, 2010). According to Smith, Swisher, Vicary, Bechtel, Minner and Henry, (2004), implementation of life skill training programs in rural areas can reduce illegal drug use among young people.

Conclusion and Recommendations

Primary school students became aware from this drug abuse prevention training program. The aims of the program were to raise awareness and support primary school students to gain life skills to protect themselves against drug addiction. The drug abuse prevention campaigns had a range of activities to provide information about drugs, drug users, and risk taking behaviors. The program also provided knowledge to support the students to develop essential strategies to help others in their school and community to prevent drug abuse.

Drug abuse prevention should be compulsory in the curriculums of primary, intermediate and secondary schools and also providing knowledge about drugs and drug abuse prevention to people in each community. It is also necessary to develop specific drug abuse prevention to fit with each context, in particular, drug abuse prevention programs for children. Community nurses should provide essential information, be a counselor, be an educator and support others to have a clear understanding and have practical drug abuse prevention skills.

Future research should consider a longitudinal investigation to determine those students' drug addiction prevention behaviors and follow the students' ongoing drug prevention activities.

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References

- Anderson, S. W., & Moore, P. A. (2009). The impact of education and school-based counseling on children's and adolescents' views of substance abuse. *Journal of Child and Adolescent Substance Abuse, 18*(1), 16-23.
- Boreham, R., & Shaw, A. (2001). *Smoking, drinking and drug use among young people in England in 2000*. London: The Stationery Office.
- Botvin, G. J., Griffin, K. W., Paul, E., & Mccauley, A. P. (2003). Preventing tobacco and alcohol use among elementary school students through life skills training. *Journal of Child & Adolescent Substance Abuse, 12*(4), 1-17.
- Cuijpers, P. (2003). Three decades of drug prevention research. *Drugs: Education, Prevention and Policy, 10*(1), 7-20.

- Daenseekaew, S., Srisontisuk, S., Thongkrajjar, E., & Sriruecha, P. (2005). Mobilizing communities to combat illicit drug use in Northeast Thailand. *Thai Journal of Nursing Research*, 9(3), 141-154.
- De Silva, PV, & Fonseka, P. (2008). Drug addicts and their behavior related to drug addiction among the institutionalized addicts of the Galle District. *Galle Medical Journal*, 13(1), 9-13.
- Epstein, J., Collins, K. K., Thomson, N. R., Pancella, T., & Pauley, D. (2007). The doubles: Evaluation of a substance abuse education curriculum for elementary school students. *Journal of Child & Adolescent Substance Abuse*, 16(4), 1-22.
- Fact sheet on the Royal Thai Government's Anti-narcotic Drugs Policy. (2010). Retrieved October 1, 2010 from <http://www.thaiembdc.org/socials/drugpolicy2003.html>
- Kaplan, K., Fairbarin, N., Hayashi, K., Wimolchaiporn, C., Zhang, R., Wood, E., et al. (2010). *Compulsory drug treatment in Thailand fails to reduce drug use and is associated with human rights violations*. Retrieved January 21, 2011 from <http://uhri.cfenet.ubc.ca>
- Kelly, P. J. (2005). Practical suggestions for community interventions using participatory action research. *Public Health Nursing*, 22(1), 65-73.
- Lende, D. H., & Smith, E. D. (2002). Evolution meets biopsychosociality: An analysis of addictive behavior. *Addiction*, 97, 447-458.
- Lloyd, C., Joyce, R., Hurry, J., & Ashton, M. (2000). The effectiveness of primary school drug education. *Drug: Education, prevention and policy*, 7(2), 109-126.
- Madrid, E., & Hall, J. M. (2001). Substance abuse. In M. A. Nies, & M. McEwen. *Community Health Nursing: Promoting the Health of Populations*. Pennsylvania: W. B. Saunders.
- McCrystal, P., Percy, A., & Higgins, K. (2006). Drug use amongst young people attending emotional and behavioral difficulty units during adolescence: A longitudinal analysis. *Emotional and Behavioral Difficulties*, 12(1), 49-68.
- McCrystal P., & Winning, K. (2009). Drugs education and prevention for school-aged young people. *Child Care in Practice*, 15(4), 314-352.
- Mcintosh, J., MacDonald, F., & Mckeganey, N. (2003). Knowledge and perceptions of illegal drugs in a sample of Pre-teenage Children. *Drugs: Education, Prevention, and Policy*, 10(4), 331-344.
- McKeganey, N., & Norrie, J. (1999). Pre-teen Drug Misuse in Scotland. *Addiction Research*, 7(6), 493-507.
- Ministry of Social Development and Human Security. (2009). *Drug abuse situation in 2008 and trend to develop planning for prevention and deal with drug abuse in 2009*. Retrieved January 16, 2010 from www.nccd.go.th/upload/content/situationtrend

- National Institute on Drug Abuse: NIDA. (2003). *Preventing drug use among children and adolescents: A research-based guide for parents, educators, and community leaders*. Maryland: National Institute of Health (NIH).
- National Institute on Drug Abuse: NIDA. (2010). *Prevention can work*. Retrieved January 21, 2010 from <http://www.drugabuse.gov/about/welcome/aboutdrugabuse/prevention/>
- Peters, L. WH., Kok, G., Ten Dam, G. TM., Buijs, G. J., & Paulussen, T. GMW. (2009). Effective elements of school health promotion across behavioral domains: A systematic review of reviews. *BMC Public Health*, 9:182. Retrieved January 20, 2010 from <http://www.biomedcentral.com/1471-2458/9/182>
- Planken, M. J. E., & Boer, H. (2010). Effects of a 10-minutes peer education protocol to reduce binge drinking among adolescents during holidays. *Journal of Alcohol and Drug Education*, 54(2), 35-52.
- Roe, S., & Becker, J. (2005). Drug prevention with vulnerable young people: A review. *Drugs: Education, prevention and policy*, 12(2), 85-99.
- Hall, W., & Pacula, R. L. (2003). *Cannabis use and dependence: Public health and public policy, young people and substance abuse*. Cambridge, UK: Cambridge University Press.
- Siriwatanamethanon, J., Boddy, J., Dignam, D., & Nuntaboot, K. (2009). From experiencing social disgust to passing as normal: Self-care process among Thai people suffering from AIDS. *Review of Development and Cooperation*, 3(1), 31-52.
- Smith, E. A., Swisher, J. D., Vicary, J. R., Bechtel, L. J., Minner, D., Henry, K. L., et al. (2004). Evaluation of life skills training and infused-life skill training in a rural setting: Outcomes at two years. *Journal of Alcohol and Drug Education*, 2004, 48(1), 51-70.
- Human Rights Watch. (2008). *Thailand's war on drugs*. Retrieved from <http://www.hrw.org/en/news/2008/03/12/thailand-s-war-drug>
- United Nation Information Office. (2004). *INCB Session to Focus on Interaction between Supply and Demand Strategies against Drug Abuse Problem*. Retrieved January 18, 2010 from www.unis.unvienna.org/unis/pressrels/2004/unisnar843.html
- Zhuravleva, L. A. (2001). Factors and conditions of the spread of narcotics among young people. *Russian Education and Society*, 43(11), 19-28.