

The effectiveness of program developed from cognitive–experiential self- theory and life skills technique on adolescent coping with stress

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ABSTRACT

Many methodologies to decrease stress in adolescents have been introduced and implemented. However, it seems that the problems in their physical, mental, emotional, and learning conditions still exist, especially for long term. The proposed program with some booster was used to solve the long run problems. To examine the effectiveness of program developed from cognitive–experiential self- theory and life skills technique on adolescent coping with stress. A quasi-experimental research in two groups is used to modify theoretical concepts of cognitive-experiential self-theory and life skills technique on adolescent coping with stress. The students of secondary schools in Nakhon Sawan Province Thailand were the target population. Two schools were randomly chosen, one for control and the other for experiment. The sample size of 84 students was randomly selected and requested to be volunteers and 44 volunteers were trained on concept of thinking, strategies to resolve the problem and control emotion for 5 days and booster in school for 9 months in every fortnight and was measured 5 times, before and after interventions at 3rd, 6th and 9th months. We used independent t- test, paired t- test, analysis of variance and covariance for data analysis. There were no difference in the mean of summation of knowledge, attitude and practice of pre-test score between treatment and control group ($P=0.124$). After the training program, the volunteers showed significant improvement of knowledge, attitude and practice ($P<0.05$) and the level of stress decreased was statistically significant ($P<0.05$). The results indicated that the training program with modify theoretical concepts of cognitive –experiential self- theory and life skills technique on adolescent enabled the participants to improve knowledge, attitude and practice in coping with stress.

Keywords: Adolescent stress, cognitive –experiential self- theory, life skills technique and booster program.

INTRODUCTION

In present society, life has become more complicated than before because of economic complications, hence, everyone has to fight for their wellbeing. They must work more to manage family demands and expenses. Most parents have to spend their time to work outside the home and they do not get time to take care of their children. Moreover, media advertisements and ICT (Information and Communication Technology) have a strong influence on growing adolescents.¹ Therefore, they are taking more risks than ever before. Likewise, adolescents have lack of skills and experience in thinking to adjust themselves to change their physical, mental, emotional, social, and learning conditions.^{2,3}

Many methodologies to decrease stress in adolescents have been introduced and implemented.^{4,5} Also, they can help adolescents solve the problems in their life for only short period, whereas the long run problems still exist and often occur commonly when adolescents go back in the community or school.^{6,7} They follow the fashion, media and advertisement which have a strong influence on them. They cannot justify what is wrong and what is right. They usually do what they think.

From Meta-analysis reviews universal intervention prevention program recommends that program should be based on student's interest to add new knowledge for their life and based on possibility on evidence of effectiveness.⁸ Interventions to prevent mental health problems and promote mental health in children and young people school based program was used.⁹ Therefore, the author was interested to design research work on the effectiveness of cognitive experiential self-theory and life skill technique development program on adolescent coping with stress in school (Booster in school for 9 months). The author hopes that this program including some boosters is viewed as sound, appropriate program for adolescents, which can make them feel useful, being served, effective in facilitating positive change, and which is capable of helping adolescents in the long run to control their emotions and resolve their problems or prevent undesirable situations in society.

MATERIALS AND METHODS

This study uses a quasi-experimental model to assess the effectiveness of program developed from cognitive-experiential self- theory and life skills technique on

adolescent coping with stress. The students of secondary schools (Matha-yomsuksa 4-6) in the Muang District, of Nakhon Sawan Province Thailand were the study population. Two schools were randomly selected, one for control and the other for experiment. The sample size was calculated from the different means of the KAP scores between before and after experiments in pilot study. Eighty four students were randomly selected and were requested to take part as volunteers. Forty four volunteers were trained on concept of thinking, strategies

to resolve the problem and control emotion. Adolescents were trained for 5 days, and booster in school for 9 months in every 15 days. Evaluation of the program was done by collecting data on attitude, knowledge and practice on coping with stress by problem solving and emotional management. The instruments used for data collection were the questionnaires modified from Cognitive experiential self theory item and Suanprung hospital Thailand, which was also endorsed by the WHO and the reliability Conbach's Alpha Coefficient was 0.8.

Table-1: Relationship between group and personal variables

					n. (%)	
					Control	Treatment
Total Sex	male	0.951	1	0.330	40 (47.6) 14 (41.2)	44 (52.4) 20 (58.8)
	female				26 (52.0)	24 (48.0)
Age group	15 and 16 years	0.255	1	0.614	31 (49.2)	32 (50.8)
	17 and 18 years				9 (42.9)	12 (57.1)
Status	single	4.680	2	0.096	7 (63.6)	4 (36.4)
	married				22 (39.3)	34 (60.7)
	separate, widow, divorced				11 (64.7)	6 (35.3)
Stay with	stay with parents	5.935	1	0.015*	31 (42.5)	42 (57.5)
	stay with other				9 (81.8)	2 (18.2)
Parents s'occupation	agriculturist	4.578	4	0.333	7 (41.2)	10 (58.8)
	trade				5 (35.7)	9 (64.3)
	to work in the government				10 (50.0)	10 (50.0)
	to work as employee				17 (60.7)	11 (39.3)
	own business and other				1 (20.0)	4 (80.0)
Relationship in family	good	0.045	1	0.832	32 (47.1)	36 (52.9)
	bad and very bad				8 (50.0)	8 (50.0)
Number sibling	≤2	0.242	1	0.623	31 (46.3)	36 (53.7)
	>2				9 (52.9)	8 (47.1)
Children number	first	0.022	1	0.883	23 (46.9)	26 (53.1)
	not first				17 (48.6)	18 (51.4)
Relationship between children	good	0.573	1	0.449	29 (45.3)	35 (54.7)
	bad				11 (55.0)	9 (45.0)
Parents s' income	<10,000	12.922	3	0.005*	26 (68.4)	12 (31.6)
	10,000-19,999				6 (40.0)	9 (60.0)
	20,000-29,999				3 (23.1)	10 (76.9)
	≥30,000				5 (27.8)	13 (72.2)

This research design: This study uses a quasi-experimental model,
 Experimental Group E0.....X.....E1...Y. E2...Y.... E3....Y...E4
 Control Group E0..... .. E1.....E2.....E3.....E4
 E0, refers to the data collection before the intervention

- X refers to give the development program on stress coping behaviors 5days
- E1 refers to the data collection immediately after the intervention
- E2 refers to the data collection 3 months after the intervention
- E3 refers to the data collection 6 months after the intervention
- E4 refers to the data collection 9 months after the intervention
- Y refers to use the booster program for 9 months in every 15 days.

Table-2: Compared the means of knowledge, attitude, practice, sum of knowledge, attitude practice and stress of pre-test score between treatment group and control group

Pre-test	n	Mean()	s.d	t	p-value
knowledge *					0.545.
treatment	44	(median=12)	(IQR=2)		
control	40	(median=12)	(IQR=2)		
attitude:				0.583	0.561
treatment	44	69.32	5.86		
control	40	70.10	6.42		
practice:				2.164	0.033 *
treatment	44	68.86	7.07		
control	40	71.90	5.62		
KAP				1.553	0.124
treatment	44	149.84	11.43		
control	40	153.57	10.52		
stress				0.905	0.368
treatment	44	14.80	7.38		
control	40	13.48	5.81		

* Mann-Whitney U test, Significant at $\alpha = 0.05$

RESULTS

From Table-1, the result show that the demographic data generally were not differences in the percentage of

participants in two groups, except for the variables of stay with parents and parent’s income ($p=0.015$ and 0.005). Therefore, variables such as stay with parents and parent’s incomes were used as covariates in further analysis.

Table-3.1: Studies on the effectiveness of health program for KAP score on students

Source of variation	SS	df	MS	F	P
Between Subjects	97671.235	92	1061.644	77.39	<0.0001
Treatment	2093.145	1	2093.195	41.30	<0.0001
Within group(error) (Between subject error)	4054.981	80	50.687		
Within Subjects					
Time	915.800	4	228.950	16.69	<0.0001
Treatment x Time	1649.512	4	412.338	30.06	<0.0001
Income	0.046	1	0.046	0.00	0.954
Stay with	9.690	1	9.690	0.71	0.401
Practice score	8413.977	1	8413.977	613.32	<0.0001
Treatment x Within gr.(error) (within subject error)	4485.994	327	13.719		
Total	102157.229	419	243.812		

Pretests in Table-2 showed no difference between the mean of attitude, the sum of KAP and stress between treatment group and control group. The p-values were 0.561, 0.124 and 0.368, respectively. However, difference was found in between the mean of practice pre-test score between treatment group and control group ($p=0.033$). Practice score was used at pretest as a covariate because it was different in the beginning.

Repeated measure analyses for five different measurement times depend on group membership (treatment and control) with three covariates; Income, Stay with and Practice score because these three variables were different in the beginning.

Table-3.2: Studies on the effectiveness of health program for stress score on students

Source of variation	SS	df	MS	F	P
Between Subjects	11303.928	92	122.869	7.11	<0.0001
Treatment	80.549	1	80.549	0.67	0.415
Within group(error) (Between subject error)	9592.600	80	119.907		
Within Subjects					
Time	74.697	4	18.674	1.08	0.336
Treatment x Time	341.019	4	85.255	4.93	0.001
Income	106.639	1	106.639	6.17	0.014
Stay with	126.011	1	126.011	7.29	0.007
Practice score	41.041	1	41.041	2.37	0.124
Treatment x Within gr.(error) (within subject error)	5651.450	327	17.283		
Total	16955.379	419	40.466		

According to Table-3, 1-3.2 on control covariates in Table-1 and 2 the result still showed that most of the variables such as, attitude, practice, summation of KAP were statistically significant ($P < 0.01$) which proved that booster program was very strong approach for diminishing the stress and for increasing KAP which is also shown in the graph below.

DISCUSSION

The results of this study demonstrated that the booster program with modify theoretical concepts of cognitive –experiential self- theory and life skills technique on adolescent coping with stress enabled the participants to improve knowledge, attitude and practice. It was found effective to reduce stress after intervention. Our results are consistent with the findings^{10,11} effectiveness ingredients of school-based drug prevention programs: A systemic review from 30 studies shows that many well designed studies of prevention programs have the potentials of reducing drug use in adolescents and adding life skills to the programs may strengthen the effects,¹² Life skill education in schools was found effective to detach the students from the risk behaviors like smoking, alcohol and drug abuse.^{13,14} As we know many health conditions in adolescent are caused by risk behaviors, such as stress, substance abuse, drinking alcohol, smoking and unprotected sexual intercourse. Moreover, there are many programs to control these problems among the school students However; achievement of the program with long term effect needs booster program along with regular programs.

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