International Journal of Medical, Medicine and Health Sciences
ISSN: 2517-9969
Vol:9, No:3, 2015

The Effect of Drug Prevention Programme Based On Cognitive-Behavioral Therapy (Cbt) and Multidimensional Self Concept Module towards Resiliency and Aggression among At-Risk Youth in Malaysia

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***Abstract*—**This experimental study evaluates the effect of using Cognitive-Behavioral Therapy (CBT) and Multidimensional Self-Concept Model (MSCM) in a drug prevention programme to increase resiliency and reduce aggression among at-risk youth in Malaysia. A number of 60 (N=60) university students who were at-risk of taking drugs were involved in this study. Participants were identified with self-rating scales, Adolescent Resilience Attitude Scale (ARAS) and Aggression Questionnaire. Based on the mean score of these instruments, the participants were divided into the treatment group, and the control group. Data were analyzed using t-test. The finding showed that the mean score of resiliency was increased in the treatment group compared to the control group. It also shows that the mean score of aggression was reduced in the treatment group compared to the control group. Drug Prevention Programme was found to help in enhancing resiliency and reducing aggression among participants in the treatment group compared to the controlled group. Implications were given regarding the preventive actions on drug abuse among youth in Malaysia.

***Keywords*—**Drug Prevention Programme, Cognitive-Behavioral Therapy (CBT), Multidimensional Self Concept Model (MSCM), resiliency, aggression, at-risk youth.

I. Introduction

The purpose of this article is to present results of a quasi-experimental evaluation of a drug prevention programme that combines Cognitive-Behavioral Therapy (CBT) and Multidimensional Self Concept targeting Malaysian at-risk youth. Malaysian youth has been chosen as there have been a vast number of discussions and studies related to drug abuse in Malaysia over the past decades until today. Drug abuse among school children has been revealed since 1970s [14]. The National Anti-Drug Agency (AADK) reported that in November 2012, more than half of the drug abusers in Malaysia (5,632 or 66.72%) were youth. Out of this number, a total of 1,509 are of the age of 30 to 34, followed by 25 to 29, and 19 to 24, with 1,488 and 1,390 respectively [2].

Drug abuse has been listed as a complex illness that is uncontrollable of drug craving, and compulsive drug seeking and use. Recently, youth often has big problems on drugs use that finally can harm their self [1]. Due to the complexity of it, drug abusers require long term treatment. It is better to prevent than to cure especially pertaining drug abuses cases. Studies revealed that preventive strategies are found to be one of the effective strategies that can lead to drug-free countries. Preventive actions should be taken seriously in preventing drug abuse in Malaysia [12]. Various researches revealed that preventive programmes at schools and involvement of the societies have been found to be among the effective methods to curb drug problems [12].

Past studies found that positive thinking, attitude and self-concept are important preventive factors that help youth from getting involved in social ills including drug abuse [13]. Recently, researchers have shown an increased interest in resiliency. Resilience has been defined as "the ability of an individual to function competently in the face of adversity and stress Youth with high level of resiliency are more competent in dealing with stress and pressures, and will also have skills in generating their temperament specially anger.

Resiliency may also contribute to positive thinking. One's behavior may also be affected by his cognitive ability to choose the best decision in his life [8]. Feelings and actions are correlated [18]. Negative thoughts will arouse negative emotions thus brings negative actions. However, positive thinkers will experience mental health benefits as they feel good about themselves and others, and will be able to show productive and acceptable behavior.

Past studies revealed that Cognitive-Behavioral Therapy (CBT) and Multidimensional Self-Concept Model (MSCM) were found to be effective strategies to reduce social problems among youth [5]-[10]. Therefore, a technique using Model A-B-C in CBT is used in this programme to analyze one's feelings, behavior and emotion. It describes the problems in an event. Thinking style especially irrational beliefs affect

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emotional and behavioral changes. CBT is a counseling approach that gives awareness on how people evaluate him that will then affect his emotion and thinking.

The module used in this programme has been studied by [15] and it shows that the module is valid and reliable. This study aims to investigate the effect of this programme towards resiliency and aggression among at risk youth in one of the higher institutions in Malaysia.

II. Objectives

The objectives of this study is to see the effect of a preventive drug abuse programme based on Cognitive-Behavioral Therapy (CBT) and Multidimensional Self-Concept Model (MSCM)among at-risk youth based on four aspects. The first is resiliency. Second, sub constructs of resiliency. Third, aggression and lastly sub constructs of aggression.

The first objectives is to investigate the effect of a preventive drug abuse programme based on Cognitive-Behavioral Therapy (CBT) and Multidimensional Self-Concept Model (MSCM) towards resiliency among at-risk youth based on the difference of:

a. The mean score of pretest of resiliency in the treatment,
b. The mean score of posttest of resiliency in the treatment group,
c. The mean score of pretest of resiliency in the control group, and
d. The mean score of posttest of resiliency in the control group.

This study was also carried out to look into the effect of a preventive drug abuse programme based on Cognitive-Behavioral Therapy (CBT) and Multidimensional Self-Concept Model (MSCM) based on the sub scale of resiliency. The effect is measured by looking at the sub constructs of resiliency among at-risk youth in the treatment group based on the difference of:

a. The mean score of pretest and posttest of Reasoning Style in the treatment group,
b. The mean score of pretest and posttest of Independent in the treatment group,
c. The mean score of pretest and posttest of Interaction Style in the treatment group,
d. The mean score of pretest and posttest of Self Initiative in the treatment group,
e. The mean score of pretest and posttest of Creativity and Humour in the treatment group,
f. The mean score of pretest and posttest of Morale in the treatment group, and
g. The mean score of pretest and posttest of Endurance in the treatment group.

The objective of this study is also to see the effect of a preventive drug abuse programme based on Cognitive-Behavioral Therapy (CBT) and Multidimensional Self-Concept Model (MSCM). The effect is measured by looking at aggression among at-risk youth based on the difference of:

a. The mean score of pretest and posttest of Physical Aggression in the treatment group,
b. The mean score of pretest and posttest of Verbal Aggression in the treatment group,
c. The mean score of pretest and posttest of Anger in the treatment group, and
d. The mean score of pretest and posttest of Hostility in the treatment group.

The effect of a preventive drug abuse programme based on Cognitive-Behavioral Therapy (CBT) and Multidimensional Self-Concept Model (MSCM) based on the sub scale of aggression was also investigated in this study. The effect is measured by looking at the sub scale of aggression among at-risk youth in the treatment group based on the difference of:

a. The mean score of pretest and posttest of Physical Aggression in the treatment group,
b. The mean score of pretest and posttest of Verbal Aggression in the treatment group,
c. The mean score of pretest and posttest of Anger in the treatment group, and
d. The mean score of pretest and posttest of Hostility in the treatment group.

III. Methodology

This was a quasi-pretest-posttest experimental study. A survey was conducted among 300 new students (n=300) in one of the higher institutions in Malaysia. Based on the data, participants were chosen purposively based on family background and the score in the self-rated instruments given. A number of 115 students were found to be from the average family background. Out of this total, 60 (n=60) students were selected based on their score in self rated instrument. These students were found to have low level of resiliency and high level of aggression. They were then divided randomly into two groups, the treatment and the control group. The treatment group participated in the programme based on Cognitive-Behavioral Therapy (CBT) and Multidimensional Self-Concept Model (MSCM), and it was carried out in 9 sessions through 25 activities. The control group participated in the normal procedures at the institution (without the programme based on (CBT) and (MSCM).The posttest was given to both groups at the end of the study.

A. Programme Based On Cognitive-Behavioral Therapy (CBT) and Multidimensional Self-Concept Model (MSCM)

A module was constructed based on the adaptation of Cognitive-Behavioral Therapy (CBT) and Multidimensional Self-Concept Model (MSCM). There are 9 sessions with 25 activities in this module as follows:

- Session 1: Introduction to Drug Abuse
  - Activity 1: Understanding about the danger of drugs abuse
  - Activity 2: Types and effect of drugs
- Session 2: Introduction to PCP based on Cognitive-Behavioral Therapy (CBT)
  - Activity 1: Introduction to PCP and ABC based on CBT
  - Activity 2: Knowing PCP and ABC based on CBT: Real story 1
- Session 3: Analysing ABC – Critical Activating Event,

Beliefs, and Consequences
- Activity 1: Describing ABC based on Real story 2
- Activity 2: Identifying Irrationale Beliefs and Alternative Rationale Beliefs based on Real story 2 (List of Healthy negative emotions and Unhealthy negative Emotions, actions and prone actions related to Healthy negative emotions and Unhealthy negative Emotions, consequences of Healthy negative emotions and Unhealthy negative Emotions)
- Session 4: Healthy Beliefs and Unhealthy Beliefs
- Activity 1: Identifying Concepts of Healthy Beliefs
- Activity 2: Overcoming negative beliefs, emotions and actions
- Activity 3: Quiz in Positive Beliefs
- Activity 4: Identifying Unhealthy Beliefs based on True story 3
- Session 5: Overcoming Irrational: Negative Beliefs
- Activity 1: Dealing with irrational request based on true story 4
- Activity 2: Dealing with irrational beliefs based on true story 4
- Activity 3: Dealing with self concept based on true story 4
- Activity 4: Dealing with beliefs on suffering based on true story 4
- Session 6: Dealing with irrational 2: Negative Emotions
- Activity 1: Dealing with doubts based on true story 5
- Activity 2: Dealing with sadness and stress based on true story 5
- Activity 3: Dealing with shyness based on true story 5
- Activity 4: Dealing with depressed and being hurt based on true story 5
- Session 7: Dealing with irrational 3: Negative Actions
- Activity 1: Dealing with doubts in problem solving based on true story 6
- Activity 2: Dealing with doubts in assertiveness based on true story 6
- Session 8: Analyse Consideration on Critical Event
- Activity 1: Consideration
- Activity 2: Reconsider Belief System, consequences and Event
- Activity 3: Guidance from peers regarding new way of thinking
- Session 9: Positive Thinking and Termination
- Activity 1: My positive thinking
- Activity 2: Positive SMS for my peers

The content validity for the module is more than 70%, (α = 0.737), with minimum score of 82.2% (Session 8: Analyse Consideration on Critical Event) and maximum score of 95.9% (Session 3: Analysing ABC – Critical Activating Event, Beliefs, and Consequences). It shows that the module is reliable, can be trusted and valid [15].

IV. Instrument

There were 3 sections in the instrument used in this study. Section A comprised of the details about the participants, Section B is the instrument used to measure Resiliency; and Section C is the instrument for Aggression.

A. Section A: Background

Section A is a set of questions related to the participants' personal information. The details pertaining subjects were their names, institutions, gender, age, race and religion. Family background such as home location, number of siblings, information regarding parents such as age, career, monthly income and occupation were also listed in Section A.

B. Section B: Resiliency

Resiliency was measured using the instrument proposed by [3]. There are 67 items, comprising 34 positive items and 33 negative items. There are 7 sub constructs in the instrument, mainly Reasoning Style (RS-7 items), Independence (ID – 9 items), Interaction Style (IS -10 items), Self Initiative (SI – 10 items), Creativity and Humor (CH – 10 items), Morale (SM-12 items), and Endurance (ED – 9 items). The score is calculated based on Likert scale; from scale 1 (Not agreed at all) to 5 (Totally agree). The validity score for the instrument is $\alpha = 0.875$ (with minimum value is 0.60 for the sub construct of Interaction Style and minimum score of 0.9106 for sub construct of Morale (M). The reliability for the instrument has been studied and was found to be high, $\alpha = 0.7865$ [15].

C. Section C: Aggression

The aggression level is measured by the instrument forwarded by Buss and Perry [4]. There are 29 items (27 positive items and 2 negative ones). There are 4 subconstructs of aggression; which are Physical Aggression (PA – 9 items), Verbal Aggression (VA – 5 items), Anger (SA – 7 items) and Hostility (SH – 8 items). Each item is measured in five Likert scale, that is 1 (not agreed at all) to 5 (agreed totally). The validity is high, $\alpha = 0.9710$ (with minimum value of 0.7663 for Hostility, and maximum value of 0.9256 for Physical Aggression) [15]. The reliability of the instrument and has found that the reliability value is high; $\alpha = 0.7096$ [15].

V. Results

Results are discussed according to the four objectives listed.

A. Objective 1

Data were collected before participants were given the intervention. To compare the data for resiliency between the treatment and the control group, mean score was used. Based on Table I, the results shows that there was an increase in resiliency for the treatment group (M= 13.7) and the control group (M=6.63). Although the mean score of both groups increased, the treatment group shows greater mean score compared to the control group.

TABLE I
Mean Score of Pretest and Post Test of Treatment and Control Group (N=60)

	Mean		
Group	Pretest	Posttest	
Treatment (n=30)	217.57 (27.05)	231.27 (16.14)	Increase
Control (n=30)	225.60 (18.84)	232.33 (17.25)	Increase

B. Objective 2

Table II shows descriptive data based on the mean score of

resiliency and sub constructs of resilience in the treatment group. When comparing the mean average of the pretest scores and the mean average of the post test scores, there was an increase in resilience on the whole (*M*=13.7) for the treatment group. In addition, the mean average scores of all subscales of resiliency were also higher than the mean average scores of the pretest. Among the highest mean average scores in the posttest is sub construct of Endurance (0.35), followed by Interaction Style (0.33), Self Initiative (0.27), Reasoning Style (0.13) and Morale (0.13). Other subscales also indicated a higher average score such as Independence (0.09) and Creativity and Humor (0.06).

TABLE II
MEAN SCORE OF PRETEST AND POSTTEST OF SUB CONSTRUCTS OF RESILIENCY FOR THE TREATMENT GROUP (*N*=30)

	Mean		
Construct	Pretest	Posttest	
Resiliency	217.57	231.27	Increase
Reasoning Style	3.03	3.16	Increase
Independence	2.96	3.04	Increase
Interaction Style	3.02	3.35	Increase
Self-Initiative	3.42	3.68	Increase
Creativity and humor	3.40	3.47	Increase
Morale	3.19	3.32	Increase
Endurance	3.74	4.09	Increase

C. Objective 3

Based on Table III, the mean score of posttest of aggression for the treatment group was 72.63 (*S.D* = 13.22) with a difference of 11.77 when compared to the pretest .84.40 (*S.D* = 15.16). However, the control group showed an increment of the mean score by 0.9. This result indicated that the treatment group had a better mean score of aggression after participating in the programme.

TABLE III
MEAN SCORE OF PRETEST AND POST TEST OF AGGRESSION BETWEEN TREATMENT AND CONTROL GROUP

	Mean Score		
Group	Pretest	Posttest	
Treatment (n=30)	84.40 (15.16)	72.63 (13.22)	Reduce
Control (n=30)	77.10 (18.39)	78.00 (16.33)	Increase

TABLE IV
MEAN SCORE IN PRETEST AND POSTTEST FOR AGGRESSION AND SUBSCALES OF AGGRESSION FOR THE TREATMENT GROUP

	Mean Score		
Construct	Pretest	Posttest	
Aggression	84.40	72.63	Reduce
Physical aggression	2.793	2.337	Reduce
Verbal aggression	2.713	2.553	Reduce
Anger	3.171	2.676	Reduce
Hostility	2.988	2.483	Reduce

D. Objective 4

The mean score for the posttest of aggression and the subs constructs of aggression has reduced in the treatment group. Based on Table IV, the mean score for aggression in the posttest has reduced to 11.7 for the overall aggression. The highest mean score that has been reduced in the posttest is sub construct of Hostility (0.51), followed by Anger (0.50), and Physical Aggression (0.46). Another sub construct that also shows a reduction is sub construct of Verbal Aggression (0.16).

VI. DISCUSSION

To conclude, the Cognitive-Behavioral Therapy (CBT) and Multidimensional Self-Concept Model (MSCM) programme was proven to help increase resiliency and reduce aggression among at risk youth in one of the higher institutions in Malaysia. It was proven from the past reviews that drug rehabilitation programs could reduce drug abuser and it was based on cognitive behavioral therapy [19]. This shows that there is a positive improvement in the psychological aspects in the treatment group. Resiliency is indicated as one of the internal factors, and internal factors are said to be one of the elements that will make a person more alert. Internal aspects such as resiliency and self-concept play significant role in human development [11]. All these aspects should be incorporated into a programme to prevent youth from abusing drugs. Programme that is proven to be effective in increasing resiliency should be carried out as resiliency has been found to be correlated with educational problems [16], having good relationship with peers [9] and also helps in solving personal problems and conflict [7]. Therefore, this programme that was developed through the combination of CBT and MSCM has been proven to be effective in improving university students' resiliency and reducing aggression. This programme could be used as a tool for universities in Malaysia. It also can use by counselors when dealing with at risk students to help them build self-confidence as well developed their potentials to be better, productive members in the country.

The study focuses on theoretical and practical aspects of education in Malaysia, the implementation of school counseling programme and CBT-MSCM model. For the implications of education in Malaysia, the problems of students who are often associated with low self-concept need to be addressed by giving appropriate intervention mainly aiming at increasing self-concept, resiliency and reduce aggression. Group intervention that combines the counseling approach is effective in dealing with a variety of misbehavior such as drug abuse, sexual activities, juvenile and delinquency [17].

Next, combining CBT with MSCM in GMSC approach has proven to have a high validity value. The validity of the value of panel of experts for GMSC module is more than .06 which is the minimum value to be accepted in validating modules. The validity value needed for the sessions and activities and for overall module is of .01 or .05 levels [15]. Therefore, the GMSC module is of high validity value and can be used in order to enhance students 'resiliency and reduce aggression.

Thus, the implications of the study are to provide a theoretical and practical GMSC module on behalf of the Malaysia Ministry of Education as well as for the counseling practices in schools. In fact, the success of the intervention will not only increase confidence and self-concept but will also give positive impact on other variables in psychological

aspects among students to develop students' quality as desired by the government.

Based on the findings of this study, several suggestions were made. Future research should cater all students of different background, and not focusing on at risk youth in a higher institution. Thus, further studies could focus on this programme in different environment and possibly over a long term intervention. Training of Trainers should also be carried out to train trainers so that this programme can be carried out throughout the country. Trainers should also have proper training in counselors, in drug abuse and the most important thing is a person who has noble heart to help these youth.

To have knowledgeable and skillful helpers, modules and notes regarding this programme should be published. Other strategies can also impart the knowledge and skills. Twitter, Facebook, and blog could be useful media to train them

Overall, GMSC is developed with theories and previous studies. GMSC which was constructed with the combination of CBT and MSCM was also proven to have high content validity value. A study has been conducted to test the effectiveness in the context of Malaysian students and it has been proven effective in dealing with at-risk students in Malaysia.

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