

## REDUCING ANXIETY IN HIGH SCHOOL STUDENT THROUGH COGNITIVE BEHAVIORAL THERAPY FOR HEALING: A STUDY OF THE MA-CBTH MODULE

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### ABSTRACT

Anxiety is a prevalent mental disorder globally. According to the National Health and Morbidity Survey, 29.2% of Malaysians aged 16 and above suffer from mental health problems. Consequently, anxiety cases continue to rise annually. This study aims to evaluate the effectiveness of the MA-CBTH Module (Manage Anxiety Using Cognitive Behavior Therapy for Healing) in addressing anxiety among form four school students. A pure experimental quantitative methodology was employed, involving a questionnaire administered to 332 students aged 16 in two schools in Perak. From these, 99 students with moderate to high anxiety levels were selected using simple random sampling and divided into three groups: a small treatment group (n = 33), a large treatment group, and a control group (n = 33), which received no treatment. Data were analyzed using SPSS (Statistical Package for the Social Sciences) version 27.0, employing MANCOVA to identify significant differences between pre-test and post-test mean scores. The DASS-21 Inventory (Depression Anxiety Stress Scales) was used to measure anxiety levels. Results indicated that anxiety scores in both the small and large treatment groups decreased compared to the control group in both schools. The study concludes that the MA-CBTH Module is a significant intervention for managing anxiety among high school students.

**Keywords:** Anxiety, Manage Anxiety Using Cognitive Behavioral Therapy for Healing Module (MA-CBTH Module), Depression Anxiety Stress Scales-21 (DASS-21), Statistical Package for the Social Sciences (SPSS)

### INTRODUCTION

Sigmund Freud (1856–1939), in his Psychoanalytic Theory, stated that anxiety plays an important role in shaping a person's personality. Anxiety is a negative condition experienced by humans and is a combination of feelings of fear, horror, trepidation, nervousness, anxiety, worry, restlessness, apprehension and various other emotions (Salasiah 2010). Wann (1997) defines anxiety as a negative interpretation made of the form of pressure or burden found in the environment, whether it has been, is

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being faced, or will be faced by an individual. Anxiety refers to the cognitive interpretation made by the individual of what is in his environment.

According to Mohd Nizam (2012), anxiety is a feeling of discomfort, fear, restlessness and nervousness. It is a common thing that is experienced from time to time. This feeling sometimes makes us more prepared to face unwanted situations. A study by Ezanee (2016), shows that students who experience excessive anxiety will have a negative effect on achievement. High social support will lower the anxiety level of students, especially female students (Katherine, 2017). Prakashini's study (2016) states that social support and high self-esteem will lower the level of anxiety. Clearly, this shows that this issue of concern involves a lot of teenagers.

There are several theories, techniques and interventions used to overcome anxiety problems, including using Cognitive Behavioral Therapy for Healing (CBT-H) approach. The basic concept of CBT-H approach is to convey the knowledge, skills, techniques and application of CBT with the simplest, fastest and most effective method. This CBT-H approach was formulated and modified based on 'Cognitive Behavioral Theory (CBT)' pioneered by Aaron T. Beck (1963) and combined various other CBT figures such as Ellis (1962), Meichembaum (1973), D' Zurilla and Goldfried (1971) and others.

CBT is widely used freely and openly according to NICE (National Institute for Clinical Excellence) guidelines and is recommended for use with mental health patients. There are several books that use CBT as a guide to overcome the issue of anxiety, among them Eduardo L. Bunge (2017), Kazuhisa Takemura (2014), and Nina Josepfowitz (2017). This shows that CBT is an intervention that is believed to help deal with anxiety issues. This point is supported by research findings by Babak (2013) and James Bennet Levy (2014). Cognitive behavioral theory (CBT) is a theory that is conceptualized as a general theory category or a group of related theories and has grown from theoretical writing, experience, clinical, and empirical studies of behavioral and cognitive-oriented psychology and other mental health workers (Kalodner, C. R. 2011). CBT-H approach is used as a guide to think positively and healthily by removing negative thought patterns that can cause various problems. CBT-H approach is used as a guide to think positively and healthily by removing negative thought patterns that can cause various problems. Therefore, the researcher took the initiative to build a module based on several techniques in CBT-H approach to overcome the worsening mental health problems among middle school students.

## **PROBLEM STATEMENT**

Mohamad et al. (2021), in their study, stated that anxiety disorder is one of the most common mental health problems around the world, including Malaysia. This issue has received a lot of attention, including from experts and authorities around the world. Although average levels of stress and anxiety can help motivate students to perform well in their studies, excessive feelings will increase their anxiety levels. A study by Tomoniko, S. (2019) shows that teenage anxiety can be driven by the online social interaction of today's teenagers.

The education system and upbringing of parents have an important role in teaching teenagers how to communicate with the digital environment safely and responsibly. Through education as well, students can be made aware of the risks of social media to mental health, learn coping techniques and know who they can turn to for help reducing the anxiety they may experience.

Adelhardt, Z. (2018), in the study of smartphone addiction and teenagers' preoccupation with smartphones, states that there is a relationship with each other. He found that an hour's separation from the smartphone would lead to a constant increase in anxiety. His research findings also found that a three-week period of separation of teenagers from smartphones is enough to influence the level of anxiety or technology dependence of teenagers. Adolescent fear of missing out was found to correlate with technology/dependence anxiety and neuroticism.

Further research by Kalaikumar, K (2021) found that social anxiety is a critical factor in the understanding of social dysfunction, especially among teenagers in a group sample, as well as the interaction with capacity in their emotional functioning. His overall goal is to study social anxiety in terms of determining how it affects their emotions.

Based on the Depression Anxiety Stress Scales (DASS 21) score by the National Health and Mobility Survey (NHMS 2018), it shows that one in five teenagers suffers from mental illness, with 17.7% being teenage girls and 18.9% being teenage boys. As for the issue of anxiety, two out of five teenagers experience this issue, with 42.3% experienced by teenage girls and 57.1% experienced by teenage boys. Data obtained from the Malaysian Fire and Rescue Department in 2018 showed that the anxiety score for men was 58%, while for women it was 10%.

**Table 1:** Mental Illness

<b>SEX</b>	<b>BOY</b>	<b>GIRL</b>
<b>PERCENTAGE</b>	18.9%	17.7%

*(NHMS, 2018)*

In 2020, the Malaysian Fire and Rescue Division reported that the highest trend for suicide attempts occurred in tall buildings, with the majority of victims being individuals aged 16 to 60 who are part of the active workforce. Data from the Royal Malaysian Police and the Fire and Rescue Department indicate a correlation between increased levels of depression, anxiety, and stress and the incidence of suicide attempts. Individuals who attempt suicide often experience prolonged episodes of these mental health issues. Therefore, addressing mental health, particularly anxiety, among high school students is essential for early intervention and prevention.

**Table 2:** Anxiety Issue

<b>SEX</b>	<b>BOY</b>	<b>GIRL</b>
<b>PERCENTAGE</b>	57.1%	42.3%

*(Malaysia Fire and Rescue, 2018)*

## **OBJECTIVE**

The main objective of the study is to examine the effects of the MA-CBTH Module on the issue of anxiety based on the CBT-H approach in small and large guidance groups that received treatment and a control group that did not receive any treatment among high school students.

## **METHODOLOGY**

According to L.R. Gay (2012), research methodology involves the methods and techniques used to design, collect, and analyze data, providing evidence to support a study. It outlines how a problem is studied and the rationale behind the chosen methods. The main purpose of this study was to examine the effects of the Anxiety Overcoming Module (MA-CBTH) using the CBT-H intervention among teenagers. The effectiveness of the intervention was tested through a pure experimental study (quantitative), analyzing the difference in pre-test and post-test statistical data of anxiety as the dependent variable. A pure experimental design was selected for its suitability in measuring the intervention's impact.

Data collection methods included administering pre-test and post-test assessments to measure anxiety levels. Data analysis was conducted using statistical techniques to compare pre-test and post-test scores. These methods were chosen for their relevance to the research objectives, ensuring clarity

and applicability. The main purpose of this study was to examine the effects of the Anxiety Overcoming Module (MA-CBTH) using the CBT-H intervention among teenagers. The effectiveness of the intervention was tested through a pure experimental study (quantitative), analyzing the difference in pre-test and post-test statistical data of anxiety as the dependent variable.

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This experimental study is unique because it produces a cause-and-effect relationship (Noraini, 2013). It is highly structured, with strict controls to prevent external variables from influencing the respondents and affecting the findings. The detailed discussion includes study design, location, subject selection, tools, pilot studies, procedures, data ranking, and data analysis.

According to Fraenkel and Wallen (2006), experimental studies allow researchers to manipulate independent variables and make decisions about treatments. Creswell (2005) identifies six main characteristics of experimental research: random distribution, group comparison, manipulation of independent variables, control of external variables, measurement of dependent variables, and internal and external validity. Although environmental factors cannot be fully controlled as in laboratory experiments, this field experiment manipulates the independent variable and measures its effect on the dependent variable in a real-life environment (Sabitha, 2006).

For this study, it is divided into three interrelated parts. The first part is a preliminary study in the form of a quantitative overview of the general picture of the level of stress, anxiety and depression among students in Malaysia, with the results of the Healthy Mind 2022 data showing that Perak is among the 3 states with the lowest Healthy Mind data, while the Kinta Selatan district has 4 homogenous schools with low Healthy Mind data. After receiving approval at the Perak State Education Department level, the researcher applied to conduct the study and only three secondary schools (one pilot study and two actual studies) were able to accept the researcher for conducting the study.

Therefore, for data collection in this preliminary study, a questionnaire with the Depression Anxiety Stress Scale (DASS) instrument was used. This means that the questionnaire was given to all form four students and the respondents were asked to answer the questions based on the statements in the questionnaire. This preliminary study is also part of the method to obtain a sample of the experimental study.

Random sample selection was made based on this preliminary study information. The second part is to create a module for overcoming anxiety by using CBT-H intervention. The procedure used in the construction of MA-CBTH is a modification of the Sidek Module Construction Model (2005), which is usually used as a guide in building or developing a module. The second part is to create a module for overcoming anxiety by using CBT-H (MA-CBTH) intervention. The procedure used in the construction of MA-CBTH is a modification of the Sidek Module Construction Model (2005), which is usually used as a guide in building or developing a module. The third part is to conduct the actual experiment itself. It is conducted in the form of an experimental group and a control group.

The method of data collection and analysis in the study is in the form of quantitative data. The quantitative data analysis of this study aims to measure the effects of the MA-CBTH module. There is one main dependent variable, which is the level of anxiety among teenagers. Overall, this study used a pre-test and post-test design on 3 groups, namely the small treatment guidance group (KBK), the large treatment group (KBB), and the control group (KK). A total of nine experts will assess the validity of this module before it is used in the pilot study and in the actual study. The actual pre-test and post-test studies were conducted on the treatment group and the control group, as described in Table 3.

**Table 3:** Research Group

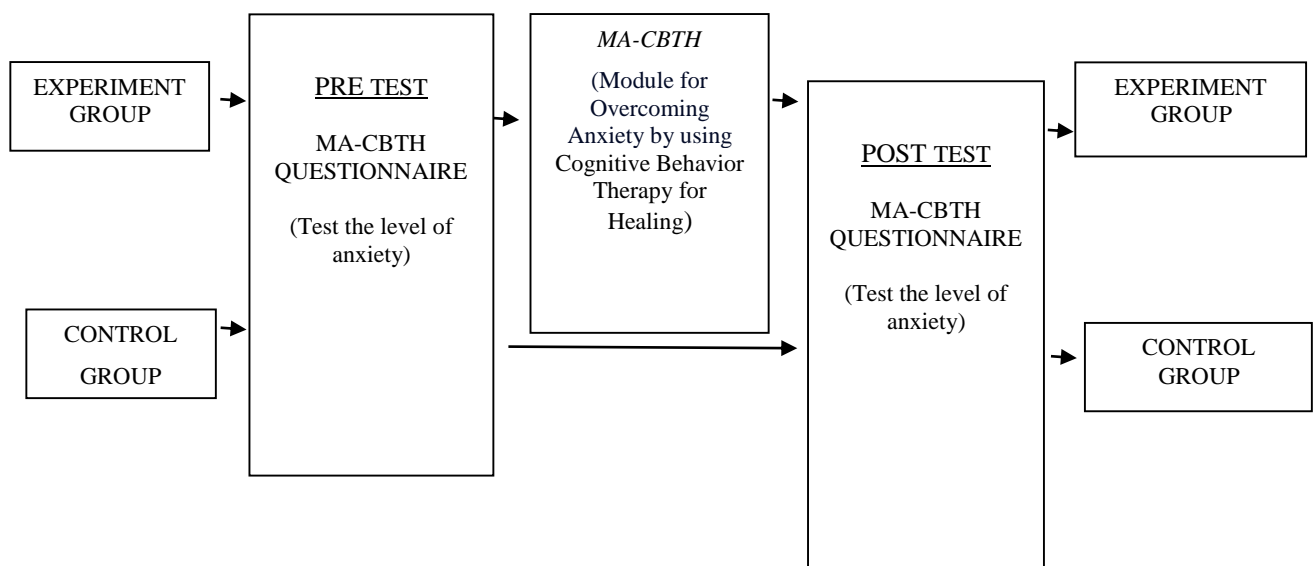
Group	Pre Test	Intervention Group	Post Test
KBK Group	01	X1	02
KBB Group	01	X1	02
KK Group	01	X2	02

\*Note : KBK Group = Small Treatment Group  
 KBB Group = Large Treatment Group  
 KK Group = Control Group  
 01 = Pre Test  
 02 = Post Test  
 X1 = MA-CBTH intervention  
 X2 = No intervention

**Reference source:** Modified from Heppner, Kivlighan and Wampold (1992)

Description of Figure 1 is about a pure experimental study of treatment and control groups selected by random sampling. During the study, the small treatment group (KBK) and the large treatment group (KBB) will receive the MA-CBTH module, while the control group (KK) will not receive any treatment. After KBK and KBB receive treatment for almost 2 months, a week later, KBK, KBB and KK will be measured with a post-test using the DASS inventory to determine concerns.

Syaharom Abdullah (1990) suggested the following points: (a) taking into account the nature of the population; (b) using simple random sampling; (c) experiments taking into account the nature of the population that is easily approached by the researcher and study samples can be obtained from it; and (d) taking into account the demographics of the population such as age, level, flow, school status, geographic, social and economic location to identify a population. Therefore, the researcher has chosen a nearby study location and study samples that have similar characteristics to each other, are balanced in terms of student characteristics and have moderate socio-economic levels.



**Figure 1:** Comparison of Pre and Post test

## **Threats to Validity**

This experimental study has the potential to deal with threats to internal validity and external validity (Campbell & Stanley, 1966). Among the threats in experimental studies are threats from subjects and threats in terms of instruments used for experimental studies. In terms of subjects, experimental studies will be exposed to the threat of effects from the subject's maturity. The maturity effect refers to any changes that arise in a subject during the study. For example, biological and psychological aspects such as the subject's personal development factors and the subject's condition during the intervention. Since this study involves one to two meetings with subjects a week for almost two months, this threat can be reduced. Next is another threat in terms of mortality, the subject dropping out, or having a crisis while undergoing treatment. In relation to this matter, the researcher has given procedures on how to deal with crisis student situations.

The researcher also estimated two to five subjects who may refuse to continue their involvement in this study. As a result, the effect of missing subjects may affect the study findings. For this study, the threat is at a minimal level because the meeting for the treatment group session only involves one to two meetings and approximately 60 minutes per session. However, with the need to meet with the guidance and counseling teacher (GBK), which is the instruction issued by the school for the subject, the threat of losing the study subject can be reduced. In addition, another threat in terms of subjects in experimental studies is the threat of diffusion. The threat of diffusion occurs when subjects in the treatment group provide information about the treatment to other subjects.

This situation may cause the possibility of changes in any group due to the information received by the subject from other groups. Subjects were asked to keep confidential the matters discussed in the meeting. Therefore, an undertaking form will be signed by the subject with the request and memory given to the subject, reducing the threat of diffusion arising in this study. Apart from that, the threat faced by the experimental study is, in terms of the subject, the statistical effect of regression. This refers to the effect that exists when there is an extreme score obtained by the subject. An extreme score is a score that is too high or too low obtained by the subject during the pretest. As a result, a significant or excessively high score gap can affect the mean score in the post test. In order to reduce the threat of statistical regression in this study, the researcher will refer back to the socio-economic data and background of the subject, as well as the score obtained during the pre-test. From the findings, students who obtained extreme scores (outliers) were not taken as subjects.

On the other hand, only subjects who obtained a mean score within the range of the overall mean score were selected as subjects. After that, matching is done to distribute the subjects into groups randomly. Experimental studies are also vulnerable to threats arising from the characteristics of the data collectors involved in them. The way they operate and administer the research instrument can affect the answers given by the subjects in the pretest and posttest. In order to reduce this threat, the same data collector was given the responsibility to collect data in the pre-test and post-test for both schools involved in this study.

According to Fraenkel and Wallen (2006), collector bias can be reduced if the data collector does not know the treatment group whose effect is being tested. Therefore, the same thing is also applied in this study. Experimental studies are also vulnerable to implementation threats. This can exist if a different GBK (counselor) provides intervention on the subject. In this context, only two GBK people provided intervention to the subjects in the two schools involved in this study. GBK in this study is an individual who has a registered counselor license and whose practice is certified by the Malaysian Counselor Board. GBK has also been trained to use the MA-CBTH module.

The intervention provided by GBK in this study was also reviewed to ensure that the steps taken in the meeting with the subject were based on the sequence outlined in the MA-CBTH module. With this, the threat in terms of implementation in this study is reduced by maintaining only one GBK who conducts the intervention for the treatment given to the study subjects in a school.

### **Research Location**

The location of the study is the school where the experimental study is conducted. Therefore, there are two main locations of the study, which are Idris Shah National Secondary School and Toh Indera Wangsa Ahmad National Secondary School, which are located in Kinta Selatan district. Determining the location or school that is appropriate and representative of the research sample conducted by the researcher after discussing the characteristics of the school and the desired subject with the Perak State Education Department. and the Kinta Selatan District Education Department. Both of these schools have been selected because they have high Healthy Mind Data 2022 as well as similar locational characteristics of being outside the city and having moderate overall academic performance.

In addition, these two schools have almost the same family socioeconomics. A school will undergo a large treatment group experiment (KBB) with a control group (KK), while a school will undergo a small treatment group experiment (KBK) with a control group (KK). Sessions for KBB and KBK will take 6 to 7 weeks, starting with a pre-test and ending a week after treatment with a post-test. Overall, the location of the study was obtained after the characteristics of the school and the subject were accurately obtained to meet the determined characteristics of the study.

### **Research Sample Selection**

The research subject is the basis for the researcher to obtain data for a study. The subject of this study includes two important elements, which are the study population and the study sample. Yin (1994) states that the selection of background, population, sample and phenomenon depends on the question and focus of the study. A study sample refers to a sample of cases or a group of subjects from a larger population (Sidek Mohd Noah, 2002).

This stage, which is the stage of selecting the study subject, is a very important stage in an experimental study. For age selection, the researcher has selected form four students to conduct this study. The justification is because form four students are in an adolescent environment, where adolescence is the transitional stage of human development from childhood to adulthood. Steinberg (1993) defines the teenage stage as being between 12 and 20 years old.

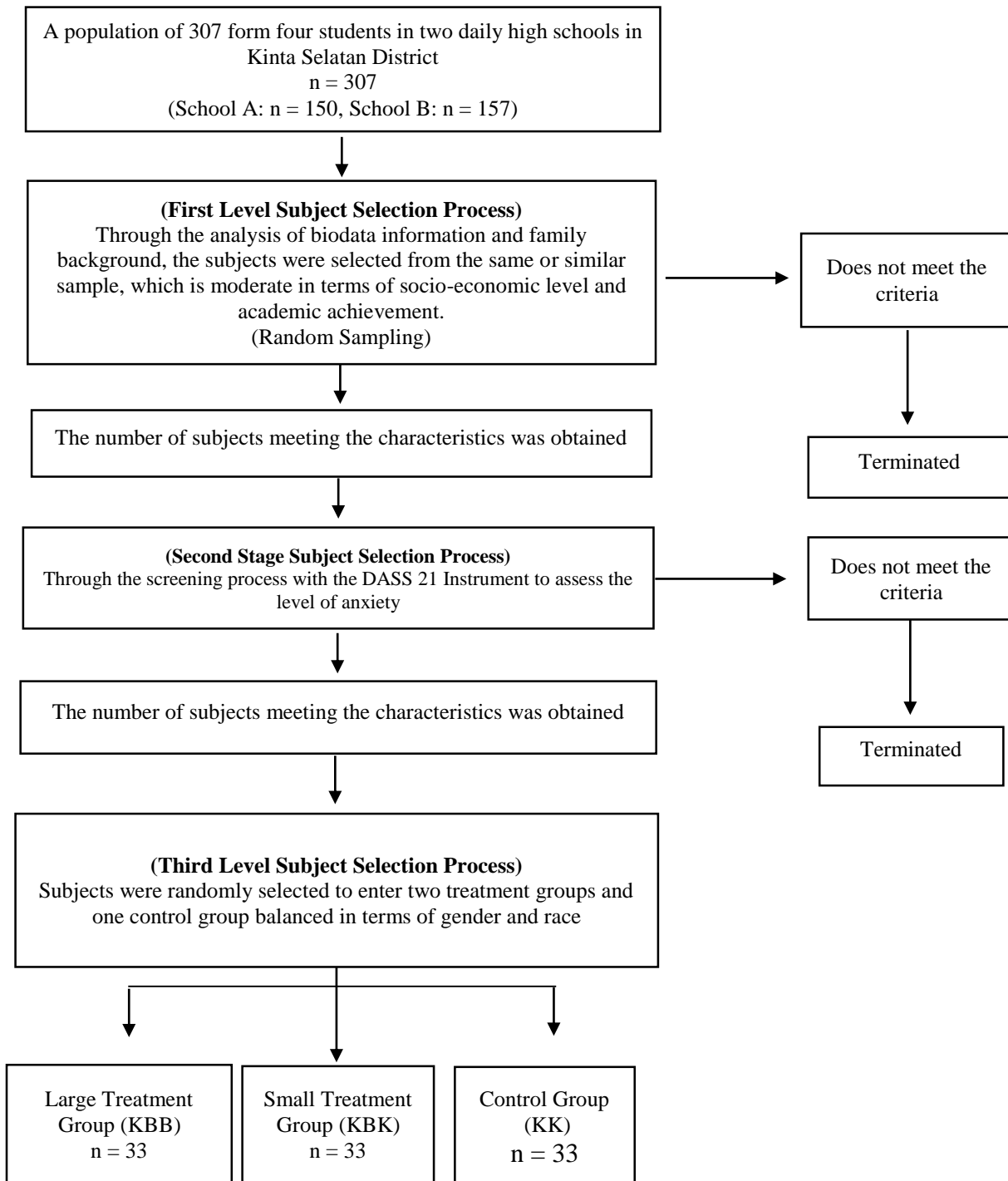
Steinber divides adolescents into three stages based on gender: pre-adolescent boys (12 to 13 years old), pre-adolescent girls (11 to 12 years old), early adolescent boys (14 to 15 years old), early adolescent girls (13 to 14 years old), late teenage boys (19 to 20 years old), and late teenage girls (18 to 20 years old). This statement by Steinberg is slightly different from Santrock (2001), where he has divided the age of teenagers into three stages, namely the early stage of adolescence (10 to 13 years old), the middle stage (14 to 17 years old), and the final stage of adolescence (18 to 22 years old). Santrock (2002) states that teenagers are in the age range of 10 to 22 years.

This is in line with what we want to study, which is the respondents among teenagers. Therefore, the researcher has selected a total of 132 people as a sample consisting of form four students obtained from pre-test data in two schools. For this study, the population is form four students who have medium and high levels of stress, anxiety and depression in the Kinta Selatan district.

### **Selection Research Subject Process**

The selection of research subjects was made from form four students in two day secondary schools in the Kinta Selatan district of Perak. These two schools were selected as a result of the 2022 Healthy Mind Screening as well as discussions with the South Kinta Education District Office and the Perak State Education Department. Based on the characteristics of schools and subjects that are almost the same as desired, among the characteristics of the selected subjects are fourth-grade students, which group of students is a category of teenagers. In addition, the researcher's justification for choosing these fourth form students is that they are not tied to any main exam and maximize their focus on the study being conducted.

Figure 2 shows a total of 307 fourth form students in both schools studied (school A: n = 152, school B: n = 155). In the first stage of the of the subject selection process, 307 subjects were distributed questionnaires containing personal information forms and DASS-21 inventory questions. Then the scores for moderate and high levels of anxiety were separated. Next, the selection of socio-economic background B40 and M40 is taken. Subjects then undergo a draw process (random sampling) to enter the treatment group and the control group. During the drawing process, a ratio of 1:1 is used for men and women. While for the account ratio, the 5:3:2 method for Malays, Chinese, and Indians is used. Therefore, if the name draw is not based on the ratio, the draw will be redone.



**Figure 2:** Flowchart election of the population, sample, and subjects of the experimental study.



## Research Tools

Othman Mohamad (2020) states that the research measurement tools used in a study need to be discussed clearly. Issues regarding the validity and reliability of the research instrument need to be highlighted. Next, he stated that if the research measuring instrument was formulated alone, then all aspects of the formulation method, together with the validity and reliability test, should be discussed. Based on his recommendations above, the aspects of the construction of the research measuring instrument that will be used in the study are discussed. To fulfill the purpose of this study, the research tool is divided into three parts. Part A is a questionnaire that aims to obtain student background information, part B is a DASS-21 questionnaire; and part C is the MA-CBTH Module.

Table 4 shows that the MA-CBTH module is organized in a clear and systematic way and directed based on careful processes. This proves that this module is suitable and able to be implemented based on the activities contained in the table.

**Table 4:** List of activities in the MA-CBTH Module

SUB MODULE	ACTIVITY
<b>DESCRIPTION AND GETTING TO KNOW ACTIVITIES</b>	
<b>1</b> <b>INTRODUCTION</b>  <b>(2 hours 25 minutes)</b>	<b>(SESSION 1)</b> Activity 1: Get to know each other and build relationships among group members (45 minutes)
	Activity 2: Explanation and briefing of the MA-CBTH Module (45 minutes)
	Activity 3: Explanation of confidentiality aspects (45 minutes)
<b>DEAL WITH ANXIETY</b>	
<b>2</b> <b>ANXIETY</b>  <b>(3 hours 45 minutes)</b>	<b>(SESSION 2)</b> Activity 1: Explain the symptoms of anxiety (45 minutes) Activity 2: Behavioral Techniques (Relaxed Breathing) (60 minutes)
	<b>(SESSION 3)</b> Activity 3: Behavioral Techniques (Empty Thinking) (60 minutes)
	<b>(SESSION 4)</b> Activity 4: Cognitive Technique (Thought Experiment) (60 minutes)
	<b>REVIEW, REFLECTION AND SUMMARY</b>
<b>3</b> <b>CLOSING</b>  <b>(2 hours 25 minutes)</b>	<b>(SESSION 5)</b> Activity 1: Review the techniques learned (45 minutes) Activity 2: Reflection (45 minutes) Activity 3: Summary (45 minutes)

## RESEARCH FINDINGS

### Research Hypothesis

There was a significant difference for pre-test and post-test anxiety for the KBK, KBB and KK groups.

### Respondent Demographics

The data obtained was analyzed using IBM Statistical Package for Social Sciences (SPSS) version 27. Table 5 shows the profiles of the study respondents. The Small Guidance Group (KBK) and Large

Guidance Group (KBB) are the groups of respondents who receive treatment, while the Control Group is the group of respondents who do not receive any treatment. For the Small Guidance Group (KBK), a total of 33 students were divided into 3 groups, with each group having 11 students. For this KBK, a total of 12 (36.37%) male students and 21 (63.64%) female students were involved. In addition, this KBK consists of 24 Malay students (72.73%), 6 Indian students (9.01%), and 3 Chinese students (18.19%). All respondents (100%) in KBK live with their families and come from families with an income of M40. For the large guidance group (KBB), a total of 33 students are gathered in the same group. For this KBB, a total of 15 male students (45.46%) and 23 female students (69.70%) participated in this study. In addition, this KBB consists of 27 Malay students (81.82%), 3 Indian students (9.09%), and 3 Chinese students (9.09%).

**Table 5:** Profile of Study Respondents

<b>GROUPS</b>	<b>NUMBERS</b>	<b>M</b>	<b>F</b>	<b>MALAY</b>	<b>CHINESE</b>	<b>INDIAN</b>
<b>KBK</b>	11:11:11	12	21	24	3	6
<b>KBB</b>	33	15	23	27	3	3
<b>KK</b>	33	8	25	26	4	3

\*Note:

KBK = Small Guidance Group

KBB = Large Guidance Group

KK = Control Group

M = Male

F = Female

### **Intervention Effectiveness**

A multivariate analysis of covariance (MANCOVA) was conducted to see the difference in pre-test and post-test mean scores on the effect of anxiety for three groups of students, namely KBK, KBB and KK.

**Table 6** Differences in Pre-Test and Post-Test Anxiety Mean Values for the KBK, KBB, and KK Groups

<b>Groups</b>	<b>N</b>	<b>Pre Test</b>		<b>Post Test</b>	
		<b>Min Value</b>	<b>Standard deviation</b>	<b>Min Value</b>	<b>Standard deviation</b>
KBK	33	2.5863	.29422	3.0637	.39216
KBB	33	2.3677	.41623	3.2306	.24426
KK	33	2.4014	.44992	2.5250	.50063

\*Note:

KBK = Small Guidance Group

KBB = Large Guidance Group

KK = Control Group

**Table 7** Tests of Within-Subjects Effects

<b>Sources</b>		<b>Type III Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Test	Huynh-Feldt	10.726	1.000	10.726	254.184	.000
Test*Groups	Huynh-Feldt	4.134	2.000	2.063	48.913	.000
Error (Groups)	Huynh-Feldt	3.678	96.000	.043		

**Table 8** Estimates Marginal Means

Test	Min Value	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Pre	2.452	.041	2.369	2.533
Post	2.949	.041	2.857	3.022

**Table 9** Pairwise Comparisons

(I)	Test	(J) Test	Difference Mean (I-J)	Std. Error	Sig.	95% Confidence Interval for Difference	
						Lower Bound	Upper Bound
Pre		Post	-.488*	.031	.000	-.549	-.437
Post		Pre	.488*	.031	.000	.427	.549

Based on the estimated marginal mean

\*. Mean difference is significant at .05

a. Adjustment for multiple comparisons: Bonferroni

**TABLE 10** Post Hoc Tests (Tukey)

Groups	N	Subset	
		1	2
KK	33	2.467	
KBK	33		2.7987
KBB	33		2.8240

## DISCUSSION

The main objective of the study is to examine the effects of the MA-CBTH Module on the issue of anxiety based on the CBT-H approach in small and large guidance groups that received treatment and a control group that did not receive any treatment among high school students. Based on Table 6, it shows the difference in mean values for pre-test and post-test anxiety for the KBK, KBB and KK groups. The results of the analysis of the study show that the total mean for the pre-test for KBK is  $M = 2.5863$  and the post-test is  $M = 3.0637$ . For the KBB group Pre Test is  $M = 2.3677$  to Post Test  $M = 3.2306$ . While the pre-test control group is  $M = 2.4014$  and the post-test is  $M = 2.5250$ , In conclusion, it shows that the KBK group has a higher difference compared to the KBB group and the KK group.

Table 7 is a test between subjects or samples, and the results of the analysis show that there are significant differences between the tested groups. This table shows the validity of the effect difference based on the three tested groups. The tested groups are the KBK, KBB and KK groups.

Table 8 shows the estimated mean values for the pre-test and post-test for the tested group. Based on the table showing the mean value for the pre-test ( $M = 2.452$ ) and the mean value for the post-test ( $M = 2.949$ ).

Table 9 shows that the pairwise comparison value is significant, which is  $p < 0.05$ . Based on the table, the mean difference value is  $M = .488$ . This finding shows that there is a difference between the pre- and post-test.

Table 10 shows the results based on Turkey's Post Hoc test. The result of this finding shows that the value for KK is  $M = 2.4627$ , KBK is  $M = 2.7987$  and KBB is  $M = 2.8240$ . The mean value of the anxiety score for the group pre-test and post-test was: KBK pre-test ( $M = 2.5853$ ,  $SP = .29422$ ) and post-test ( $M = 3.2307$ ,  $SP = .39216$ ), KBB pre-test ( $M = 2.3667$ ,  $SP = .41623$ ) and post-test ( $M = 3.2307$ ,  $SP = .39216$ ) and KK pre-test ( $M = 2.4013$ ,  $SP = .44992$ ) and post-test ( $M = 2.5240$ ,  $SP = .50063$ ).

This finding clearly shows that there is a change in the effect on anxiety among students in the study population. This result is also shown by the Pairwise Comparisons table, which shows a significant difference for each pair of tests after type I error is controlled using the Bonferroni method. The results of Turkey's post-hoc test show that there is a better difference for KKB. In conclusion, the null hypothesis was rejected, and there was a pre-test and post-test difference in anxiety between the types of intervention (KBK and KBB) compared to KK.

## **IMPLICATION**

The study respondents consisted of fourth grade students in two schools. The findings of this study show that most students experience moderate and severe levels of anxiety based on the DASS-21 inventory conducted during the pre-test. The findings of this study may have an impact on the real scenario in the process of helping students in reducing the level of anxiety experienced. Therefore, it is important for a school to get this module so that the anxiety issues experienced by students can be overcome. In addition, students can improve students' knowledge about how to overcome anxiety. Therefore, students should know and understand aspects related to mental health, especially in terms of anxiety.

## **CONCLUSION**

This study aimed to evaluate the effectiveness of the MA-CBTH Module, based on 'Cognitive Behavior Therapy for Healing,' among form four students in two regular day schools in Perak. The module underwent expert and content validation to ensure its quality and effectiveness. As Sabitha (2006) notes, module validity pertains to the accuracy of its concept and content, which Pallant (2007) supports, emphasizing that validity measures the extent to which a research tool assesses the intended characteristics. Feedback from experts (Majid, 2000) confirmed the module's validity, indicating it accurately and effectively covers its intended content. A pilot study involving 33 respondents from Perak was conducted to test the module's conceptual model and the validity and reliability of the instruments used (Borg & Gall, 1993).

Chua Lay Nee (2011) highlights that pilot studies are crucial for ensuring the reliability and consistency of research instruments before conducting the main study. The pilot study results, analyzed using SPSS-27, provided preliminary evidence of the module's effectiveness in reducing anxiety scores among high school students. The main study's findings showed that the MA-CBTH Module significantly reduced anxiety scores among students who received the intervention. This aligns with previous research indicating the efficacy of cognitive-behavioral interventions in managing anxiety.

Study by Shafiea, A. A. (2021) found CBT therapy approach is suitable in helping individuals who are dealing with anxiety. However, the module's effectiveness was observed only among students without psychiatric records or special education needs. This limitation suggests that while the module is beneficial for the general student population, its application to students with more severe or clinical anxiety issues may require further adaptation and testing. Future research should explore the module's effectiveness in different contexts, such as boarding schools or rural day schools, to determine its broader applicability. Additionally, the study was limited by its sample size and geographic scope.

Conducting similar studies in other regions or with larger, more diverse populations would provide more generalizable results. Expanding the research to include primary school students could also be valuable, with necessary modifications to the module to suit younger children's comprehension levels and interests. The findings underscore the importance of validated, structured interventions in educational settings to address student anxiety.

The MA-CBTH Module demonstrates significant potential in reducing anxiety levels, contributing to improved mental health and academic performance. Future studies should continue to refine and test the module across various populations and settings to enhance its efficacy and reach. In conclusion, the MA-CBTH Module has proven effective in reducing anxiety among secondary school students in regular educational settings. While its application may be limited to non-clinical populations, it offers a promising tool for educators and mental health professionals. Ongoing research and adaptation will be crucial in maximizing its benefits and ensuring it meets the diverse needs of all students.

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