

**EFFICACY OF COGNITIVE BEHAVIOUR THERAPY  
IN RESTRUCTURING THE MINDSET OF IN- SCHOOL ADOLESCENTS  
FOR SELF-DEVELOPMENT AND IMPROVED  
PSYCHOLOGICAL WELL-BEING**

**Rebecca Eyiuche Aghadinazu, (Ph.D)**

**&**

**Patricia Osorochi Obi, (Ph.D)**

Psychology and Counselling Department,  
Michael Okpara University of Agriculture  
Umudike, Abia State

**Abstract**

*The study examined the efficacy of cognitive behaviour therapy (CBT) in restructuring the mindsets of in-school adolescents towards self-development and improved well-being in Abia State, Nigeria. The study adopted a quasi-experimental design, using Pre-test, post-test and control groups. Two research questions and two hypotheses guided the study. The population of the study consisted of two hundred (200) in-school adolescents from four secondary schools in Umuahia, Abia State. The sample of the study consisted of sixty-eight subjects who were drawn through purposive sampling, using two researchers developed instruments with 20- items each titled: Adolescent Self-Development Instrument (ASDI) and Adolescent Psychological Well-being Instrument (APWBI). The two instruments had two sections each. Section A in each of the instruments contained demographic information of the respondents while section B contained 20 items on self-development and psychological well-being. The responses to the items were designed on a four-point rating scale of Strongly Agree (4), Agree (3), Disagree (2) and Strongly Disagreed (1) respectively. The instruments were subjected to reliability analysis using Cronbach Alpha to determine the internal consistency and reliability index of 0.78 and 0.68 respectively were obtained. Mean and standard deviation was used to answer the research questions, while ANCOVA was used to test the hypotheses at 0.05 level of significance. The instruments were validated by 2 experts in the field of Guidance and Counselling as well as one from Measurement and Evaluation. After exposure to therapies, the findings revealed that Cognitive Behaviour Therapy was effective in restructuring the mindset of in-school adolescents for self-development and psychological well-being. Thus, the researchers recommended that counsellors should make use of CBT in restructuring the mindsets of adolescents towards self-development and improved psychological well-being.*

**Keywords:** Cognitive behaviour therapy, restructuring, mindset, in-school adolescents and improved psychological well-being.

## Introduction

Life in the present society is stressful and exerts psychological trauma on young people, especially the in-school adolescents who are vulnerable and lack the willpower for effective coping. While a majority of the in-school adolescents navigate the long route of adolescence successfully, a good number are maladjusted and find it difficult to reach their potential. Hence, self-development and improved psychological well-being become paramount and fundamental to the health, comfort, happiness and subsequently, proper functioning of the in-school adolescents. They are instrumental to the in-school adolescents' ability to overcome difficulties and achievement of life goals. Self-development has to do with the process by which a person's character or abilities are gradually developed. The goals of self-development include: to become more fit and healthy; find one's purpose in life; acquire more skills for success; improve personal relationships; develop a deeper level of commitment and drive to challenge ourselves; develop a higher level of self; esteem and positivity (Fernandez, 2017).

On the other hand, psychological well-being is a general sense of emotional health, as evidenced by high self-esteem and positive relationship with others, and lack of anxiety, depression and deviant behaviour (White, 2004). Deci and Ryan (2008), defined it in terms of experiencing high levels of positive affect, low levels of negative affect and a high degree of satisfaction with life. It is not an outcome of or final state, but a process of fulfilling human potentials. Achieving self-development and high levels of psychological well-being energises the in-school adolescents towards showcasing the best versions of who they are in character and otherwise. According to Ryff's multidimensional model, which has received the most empirical support (Ryff, 2014), psychological well-being is made up of six dimensions: *autonomy*, or the ability to regulate our own behaviour, resist social pressure, and follow our convictions, even if they go against the general opinion; *environmental mastery*, or the ability to manage the context and daily activities; *personal growth*, which includes a continuous process of developing our own potential, the ability to be open to new experiences and the feeling of improving over time; *positive relationships with others*, defined as the establishment of close, trusting and meaningful bonds with others, as well as showing concern for the well-being of others, and the expression of empathy, affection, and intimacy; *purpose in life*, or setting objectives and goals which give meaning and direction to our lives; and *self-acceptance*, or the ability to have a positive attitude and feelings of satisfaction and acceptance of ourselves (Ryff, 2014).

Studies have shown that individuals who achieve self-development and higher psychological well-being are more likely to live healthier and longer lives; more likely to enjoy a better quality of life as well as experience fewer social problems. For instance, they are less likely to engage in criminal activity or abuse drugs and alcohol. In addition, self-development and positive psychological well-being tend to predict higher earnings and more prosocial behaviour (Morin, 2020). However, the self-development and psychological well-being of the in-school adolescents are greatly influenced by different experiences to which the in-school adolescents are exposed. The majority of these experiences are marked with stresses and strains which expose them to untold risky behavioural patterns.

According to the National Research Council Institute of Medicine (2001), many in-school adolescents engage in risky behaviours owing to the feeling of hopelessness. Some of the decisions which they take put them at risk. They become vulnerable to physical and psychological harm which may negatively impact their long-term health and viability. Such risky behaviours or problems

which push them to the boundary are grouped into internalising and externalising problems. Internalising aspects are those which occur when the in-school adolescents turn their problems inward such as anxiety, depression, low self-esteem, anger, frustration and suicidal ideation. On the other hand, externalising problems include truancy, addiction to drugs and alcohol, risky sexual behaviour (dating, reading erotic or pornographic materials, sexually transmitted diseases, abortions), refusal to take responsibility, anti-social behaviours like cultism, late-night activities, rape, scaling through school fence, getting involved in violent activities in the school among others.

Anxiety and depression are risky behaviours likely to impact negatively on the in-school adolescents' self-development and psychological well-being. While anxiety is a vague, highly unpleasant feeling of fear and apprehension, depression has to do with the emotional feeling of sadness, lethargy and hopelessness (Santrock, 2005). Research focusing on well-being has frequently used symptoms of depression and anxiety as indicators of psychological well-being (Bauermeister *et al.*, 2010; Doornwaard *et al.*, 2016; Larson and Miller, 2014). According to the American Psychiatric Association, 1994 cited in Santrock (2005), nine symptoms which define a major depressive episode among the in-school adolescents include; depressed mood most of the day, deduced interest or pleasure in all or most activities, significant weight loss or gain, or significant decrease or increase in appetite, trouble sleeping or sleeping too much (often due to all-night television watch or excessive sleeping during the day time), psychomotor agitation or retardation, fatigue or loss of energy, feeling worthless or guilty excessively or inappropriately, problems in thinking, concentrating, or making a decision, recurrent thoughts of death and suicide ideation.

The above report is in line with the findings of the study by Ran and Chan (2010), which investigated the relations between suicidal ideation, general mental health status (domains: depression, lack of confidence and uselessness; measured by the shorter General Health Questionnaire [GHQ]), and psychosocial difficulties and strengths with 2638 secondary school students in Hong Kong. Depressive symptoms, lack of confidence, feeling of uselessness, poor self-esteem, tranquillity, disorientation, resilience, prosocial behaviour, conduct behaviour, hyperactivity, emotional symptoms, and peer relationships were revealed to be significantly associated with suicidal ideation among in-school adolescents. Along this line, the researchers opined that the depressive symptoms which are responsible for most of the risky behavioural patterns the in-school adolescents are involved in, deter them from achieving self-development and psychological well-being. A lot of factors are responsible for igniting anxiety and depression among in-school adolescents which, in most cases, impact negatively on their self-esteem and the resultant risky behavioural patterns.

Research findings revealed that certain factors which include; poor peer relationships, not having a close relationship with a best friend, having less contact with friends, peer rejection, examination failure, body dissatisfaction as in the case of overweight, underweight, poor skin, poor walking posture and poor family relationships contribute to depression among in-school adolescents (Graber, 2004; Sheeber; Seroczynsk, Jacquez & Cole, 2003; Hobs & Davis 2001). Supporting the above, Oniyama and Oniyama (2001), reported that emotional and psychological problems plague the Nigerian in-school adolescents. This is owing to neglect from parents or caregivers, the desire for independence and the inability of parents to fit into their world opens the channel for anxiety, frustration, unhappiness and depression. Cohen and David (2009), revealed that individuals who suffer from depression often experience feelings of despair, hopelessness, worthlessness and suicidal ideation which the researchers see as a major challenge the in-school adolescents are

confronted with presently.

According to Otolehi and Akunam (2017), anxiety and depression are noted by psychologists as among the psychological challenges confronting in-school adolescents. It interrupts their processing skills, making it difficult for them to respond positively in examination conditions. According to Chikwe (2014), when in-school adolescents are confronted with negative emotions which are internalising problems, such as anger, anxiety, depression and general dissatisfaction, they tend to manifest these problems through externalising problems such as; truancy, bullying, isolate problems and resultant poor academic achievement. The above problems do not only affect the in-school adolescents' well-being but, give credence to destructive lifestyles such as addiction to drugs and alcohol, smoking Indian hemp, as well as other hard drugs such as cocaine and heroin (Chikwe, 2014, cited in Otolehi and Akunama, 2017).

Drugs and alcohol are among the externalising problems which place the in-school adolescents at risk. The rate at which in-school adolescents are frequently admitted to psychiatric hospitals with chronic mental health issues due to drug and alcohol use has become worrisome in the nation. Alcohol intake among in-school adolescents increases their involvement in truancy, absenteeism in school, lateness to school, constant playing during lesson periods, leaving the school compound at the wrong hours, and extorting money from junior students with impunity. Drug and alcohol abuse have adverse effects on cognitive functioning, and mental and physical health as well as highly responsible for a variety of anti-social behaviour manifested by in-school adolescents (Adegun & Jiboku, 2019; Agwogie, 2010; Estevez & Emler, 2011). In the researchers' view, a lot of in-school adolescents are involved in drugs and alcohol without batting an eyelid. They believe that such habits empower them with confidence and boldness, enable them to overcome shyness and apprehension, and help them to cope with academic stress as well as feel less lonely. However, many are ignorant of the fact that drug and alcohol are harmful to health and give credence to risky behavioural patterns.

According to Maina (2008) and Chamberlin (2015), studies have revealed that the common causes of risky behaviour are negative peer influence, the influence of dangerous drugs and the volatile adolescent stage. In-school adolescents are engaged in smoking Indian hemp, heroin, cigarette and other drugs not prescribed to them by doctors, to make them feel "high", shine their eyes, commit various dangerous crimes or feel bold to talk with their teachers or the opposite sex. The above reports are an indication that the self-development and psychological well-being of a great number of our in-school adolescents are at stake and by implication the future of society. Thus, a great need for the in-school adolescents to develop the desired skills necessary for coping with stresses and strains of everyday life as well as emotions such as sadness and anger which ignite negative behavioural acts among them in a healthy way.

It is against the above background that the researchers investigate the efficacy of cognitive behaviour therapy in restructuring the mindset of the in-school adolescents for self-development and psychological well-being. A review of 106 meta-analyses conducted by Hofmann and colleagues' which assessed CBT's efficacy in treating substance abuse; depression; anxiety; personality disorders; aggression; anger and criminal behaviours revealed an overwhelming support for Cognitive Behaviour Therapy as an effective psychotherapeutic treatment option for the conditions. In particular, the strongest support for the use of CBT was shown for anxiety disorders,

anger control problems, and general stress.

### **Cognitive Behavioural Therapy**

Cognitive behavioural therapy is a psychotherapeutic treatment in which negative patterns of thought regarding the client and his world are challenged to alter negative behavioural patterns. CBT was first developed in the 1960s by a psychiatrist named Aaron T. Beck. The goal of cognitive behaviour therapy is to restructure the thinking abilities of individuals such that they will learn new positive behaviours and manage problems by recognising how their thoughts can affect their feelings and behaviour. Kendra (2021) asserts that Cognitive Behavioural Therapy (CBT) is a psychotherapeutic treatment that assists individuals to learn how to identify and change destructive or disturbing thought patterns that have a negative influence on behaviour, worsen emotional difficulties, depression, and anxiety. By so doing, the in-school adolescents develop healthy self-esteem, realistic and achievable goals, a positive outlook in life, as well a sense of purpose and meaning which are tailored towards self-development and psychological well-being. The researchers opine that CBT is an appropriate technique for this study because it is problem-oriented and emphasises the present as well as assists individuals to restructure their thinking abilities necessary for self-development and improved psychological well-being.

### **Statement of the Problem**

Research findings have revealed that psychological well-being is a reliable predictor of health and long-term positive adjustment. Also, people with higher levels of psychological well-being suffer fewer illnesses, have an increased life expectancy and engage in more healthy behaviour (Ryff, 2017). In the same vein, self-development enables an individual to improve oneself and achieve personal growth by improving personal skills, competencies, talents and knowledge. The above is an indication that both variables are the foundations which are pivotal to the in-school adolescents' survival and success in their social life. However, the adolescence period is generally known to be marked with stress and storm, a great number of in-school adolescents are faced with different challenges which expose them to risky behavioural activities. The majority of these experiences are negative behavioural patterns likely to destroy them. Therefore, the need to restructure their mindsets to enable them develop the skills necessary to cope with the stresses, strains and emotions responsible for risky behavioural patterns or lifestyles amongst them to achieve self-development and psychological well-being.

Though there are a lot of studies on in-school adolescents, however, there is a dearth of literature on self-development and psychological well-being of in-school adolescents, which is the gap this present study attempts to fill, by exploring the efficacy of Cognitive Behavioural Therapy towards restructuring the mindset of in-school adolescents for self-development and psychological well-being. Hence, the problem of this study put in question form is; what is the efficacy of CBT towards restructuring the mindset of in-school adolescents for self-development and psychological well-being?

### **Objectives of the Study**

The following objectives guided the study:

1. To determine the rate of restructuring for self-development between those exposed to cognitive behavioural therapy and the control at post-test.
2. To determine the rate of restructuring for psychological well-being between those exposed



to cognitive behavioural therapy and the control at post-test.

### Research Questions

The following research questions were raised to guide the study:

- 1 What is the mean difference in the rate of restructuring for self-development between those exposed to cognitive behavioural therapy and the control at post-testfi
- 2 What is the mean difference in the rate of restructuring for psychological well-being between those exposed to cognitive behavioural therapy and the control at post-testfi

### Hypotheses

The following hypotheses were tested at 0.05 level of significance:

- H<sub>01</sub>:** There is no mean difference in the rate of restructuring for self-development between those exposed to cognitive behavioural therapy and the control at post-testfi
- H<sub>02</sub>:** There is no mean difference in the rate of restructuring for psychological well-being between those exposed to cognitive behavioural therapy and the control at post-testfi

### Methodology

The study adopted a quasi-experimental design with pre-test and post-test treatment groups. Two research questions and two hypotheses guided the study. Two hundred (200) in-school adolescents from four secondary schools in Umuahia, Abia State formed the population of this study; out of which sixty-eight subjects were purposively drawn to form the sample size for the quasi-experimental groups. They were two groups that participated (experimental and control) groups. Each group was made up of thirty-four subjects. Two researchers developed instruments with 20-items each titled: Adolescent Self-Development Instrument (ASDI) and Adolescent Psychological Well-being Instrument (APWBI) were used for both pre and post-testing. The use of the instrument helped the researchers to select thirty-four (34) subjects with risky behavioural patterns who formed the treatment group. The two instruments had two sections each. Section A in each of the instruments contained demographic information of the subjects while section B contained 15 items on self-development and psychological well-being. The responses to the items were designed on a four-point rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagreed (SD) with the criterion of 4, 3, 2, and 1.

This equals 10 divided by 4=2.50, which gave us the baseline for decision-making. The instruments were validated by 2 experts in the fields of Guidance and Counselling and one from the Measurement and Evaluation Departments of Micheal Okpara University of Agriculture, Umudike, Abia State. The instruments were subjected to reliability analysis using Cronbach Alpha to determine the internal consistency and reliability index of 0.78 and 0.68 respectively were obtained. Mean and standard deviation was used to answer the research questions while ANCOVA was used to test the hypotheses at 0.05 level of significance.

The permission of the principals was obtained before administering the pre-test. The subjects involved in risky behavioural patterns were selected for four weeks of cognitive restructuring therapy. The treatment contact was one hour twice a week, with a total of eight contacts of pre-test and post-test hours.

## **Treatment Phases**

### **First stage: Pre-test phase**

The researchers visited the schools where the permission and co-operation of the school administrators and counsellors were sought and obtained. During this stage of familiarisation, the establishment of rapport and the setting of the structure, the researchers assured the participants of the confidentiality of any information obtained from them. The researchers used intact classes of fifty (50) SS 2 students each, from the four schools used for the study. The first school sampled became treatment group A; the second school control group A; the third school treatment group B while the fourth school was controlled group B. Four groups of two treatment groups of seventeen (17) subjects each making, the total samples to be thirty-four (34) subjects in two treatment samples (17 each) and thirty-four (17 each) in two control samples were used. Thus, sixty-eight (68) subjects participated in the programme made up of thirty-four (34) subjects in the treatment group and thirty-four (34) subjects in the control group. Cognitive behaviour therapy was only administered to the two (2) treatment groups. The control group was a waitlist group and received only pre-test and post-test.

### **Second stage: Treatment Phase**

It was a teaching programme of sessions of one hour each, spread over six weeks. The treatment was a counselling presentation on Cognitive Behaviour Therapy (CBT), broken down into smaller and more meaningful discussions by the researchers. The focus was on the implications and elimination of risky behavioural patterns for self-development and psychological well-being.

### **Third stage: Post-Test Phase**

The researchers administered a post-test to the same respondents to see the effect of the treatment on their self-development and psychological well-being. Data obtained from pre-test and post-test were analysed using ANCOVA.

Sessions	Themes	Researchers	Subjects Activities	Duration
<b>Session 1: (pre-therapy)</b>	Counselling establishment issues: familiarisation; building rapport; confidentiality issues; roles and expectations.	The researchers-initiated introduction; explained the purpose of the meeting while ensuring rapport; assured the subjects that whatever information they released must be kept confidential as they are for a research purpose; the roles and expectations of the counsellor and clients were clarified.	The participants took turns introducing themselves. Discussed the issues of confidentiality, and asked questions on their roles and expectations.	1 hour
<b>Session: 2 Phase: 1</b>	The rationale for treatment	The researchers explained the rationale for treatment to enable the subjects fully understand the need for the therapy. The importance of working on their thoughts and behaviours in treatment, was fully explained by the researchers. For instance, the need for the treatment is for them to understand how their thought patterns influence their behavioural patterns, to enable them to develop self-esteem, challenge and replace their distorted thoughts with more constructive thoughts.	The participants were attentive to the explanations and asked questions for clarification such as: how does a person's taught affect behaviourfi what is self-esteemfi Does it mean that failure in an examination is as a result of how one thinksfi	1 hour
<b>Phase: 2</b>	Learning and understanding the problem.  Analysis of risky behavioural patterns	Concrete discussion of the problems, their symptoms, potential causes, associated feelings, what maintains and what to be aware of when tackling it was discussed.	The participants discussed their problems, potential causes, feelings and experiences, effects and what they hope to achieve at the end of therapy.	1 hour
<b>Session: 3</b>	The setting of counselling goals	The participants were guided to set counselling (SMART) goals in behavioural terms. Each participant wrote their goals on their worksheet. They were told to bear their goals in mind and focus on them.	The participants were assisted by the researchers to set their (SMART) goals in behavioural terms.	1 hour



Sessions	Themes	Researchers	Subjects Activities	Duration
<b>Session:4 Phase:1</b>	<b>Treatment</b>	The researchers introduced the Cognitive Behaviour Therapy (CBT) to the participants. Using the ABCDE model, they redirected the irrational thinking and behavioural patterns of the participants by confronting, re-educating and transforming the irrational, immature and unrealistic thinking process into a more realistic, mature, logical, rational and new philosophic effect.	The participants were very attentive and asked questions for clarifications that were necessary.	<b>1 hour</b>
<b>Phase:2</b>	Tasks and assignments	<i>They asked the participants to enlist the negative and positive effects of their risky behaviour on them and submit them the next meeting.</i>	The participants agreed to do as they were instructed and submit it at the next meeting.	
<b>Session:5 Phase: 1</b>	Introduction of behavioural changes and thought re-training.	The researchers introduced behavioural changes and thought re-training steps. They helped the participants to learn how their thoughts, emotions and behaviour interact, and the value of changing their negative thinking patterns. They sensitised them by practising the steps below: <b>Step One</b> - Make A-List. <b>Step Two</b> - Record Unproductive Thoughts <b>Step three</b> - Create Replacement Thoughts <b>Step four</b> - Read Your List Often <b>Step five</b> - Notice and Replaces	The participants listened to the explanations and asked for necessary clarifications. -practised what they learnt as were instructed by the counsellor	
<b>Phase:2</b>	General overview of all the sessions and termination	The researchers continued to work on re-training the participants' thoughts and behavioural patterns and encouraged them to stick to the treatment pattern.	-Continued to follow through with tasks and assignments previously given to them.	<b>1 hour</b>

Sessions	Themes	Researches Activities	Subjects Activities	Duration
Session:6	Review of progress	Tasks and assignments were reviewed. All the previous session activities were reviewed. Progress was noted.	They participated in the review and summary of the sessions.	1 hour
	Summary of the sessions and termination	The researchers asked the participants to recall their goals and the taught re-training steps they learnt that would enable them to think and behave appropriately.	Participants participated in the activities as they were instructed.	
		The researchers summarised the counselling sessions and encouraged the participants to ask for clarifications. They expressed their gratitude to them for their effort and co-operation throughout the sessions. They were advised not to forget what they learnt and to call their attention anytime it's needed. The date for the post-test was agreed on and they were post-tested before termination of the counselling sessions.	Participants listened to the summary, sought clarifications where necessary, expressed their views about the programme and agreed to partake in the post-test	

**Research Question 1: What is the mean difference in the rate of restructuring for self-development between those exposed to cognitive behavioural therapy and the control at post-test?**

**Table 1: Pre-test/ Post-test Mean Difference and Standard Deviation in the rate of Restructuring for Self-development between those exposed to Cognitive Behavioural Therapy and the Control at Post-test**

Groups		Pre-test		Post-test		Mean difference
	N	$\bar{X}$	SD	$\bar{X}$	SD	
<b>TREATMENT GROUP</b>	34	3.5294	0.86112	2.9412	1.01328	0.5882
<b>CONTROL GROUP</b>	34	1.9412	0.81431	2.0294	0.57658	0.0882

The result in Table 1 revealed the Pre-test/post-test Mean and Standard Deviation responses of the rate of restructuring for self-development between those exposed to cognitive behavioural therapy and the control at post-test. The Table revealed the pre-test mean score of 1.9412 with a standard deviation of 0.81431 and the post-test mean score of 2.0294 with a standard deviation of 0.5765 and a mean difference of 0.0882 for the control group. However, the Table showed a pre-test Mean score of 3.5294 with a standard deviation of 0.86112 and a post-test mean score of 2.9412 with a standard deviation of 1.01328 and a difference of 0.5882 for the experimental group. The implication is that cognitive behavioural therapy is effective in restructuring the mindset of in-school adolescents for self-development.

**Hypothesis One:** There is no mean difference in the rate of restructuring for self-development between those exposed to cognitive behavioural therapy and the control at the post-test

**Table 2:** Analysis of Covariance on the Mean Difference in the Rate of Restructuring for Self-development between those exposed to Cognitive Behavioural Therapy and the Control at Post-test.

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
TREATMENT GROUP	20.707	29	.714 <sup>b</sup>	1.610	.215
CONTROL GROUP	3.336	3	1.112	1.557	.221
INTERCEPT	26.189	1	26.189	34.708	.000

Table 2 showed that the observed difference between those exposed to cognitive behaviour therapy and the control at post-test produced an F value of 1.557 which is significant at a 0.221 probability level.  $F= 1.557$  is also not significant at  $p<0.05$ . Thus, there is a significant difference between the mean difference in the rate of restructuring for self-development between those exposed to cognitive behaviour therapy and the control at post-test. Therefore, the null hypothesis is rejected. This simply implies that cognitive behaviour therapy is effective in restructuring the mindset of in-school adolescents for self-development.

**Research Question Two:** What is the mean difference in the rate of restructuring for psychological well-being between those exposed to cognitive behavioural therapy and the control at post-test

**Table 3:** Mean difference and Standard Deviation in the Rate of Restructuring For Psychological Well-being between those Exposed to Cognitive Behavioural Therapy And The Control At Post-test

Groups	N	Pre-test		Post-test		Mean difference
		Mean	SD	Mean	SD	
<b>TREATMENT GROUP</b>	34	1.4412	.81431	3.1176	.80772	1.6764
<b>CONTROL GROUP</b>	34	1.4294	.57658	1.5588	.50399	0.1294

The result in Table 3 revealed the Pre-test/post-test Mean and Standard Deviation responses of the rate of restructuring for self-development between those exposed to cognitive behavioural therapy and the control at post-test. The Table revealed the pre-test mean score of 1.4294 with a standard deviation of .57658 and the post-test mean score of 1.5588 with a standard deviation of .50399 and a mean difference of 0.1294 for the control group. However, the table showed a pre-test Mean score of 1.4412 with a standard deviation of .81431 and a post-test mean score of 3.1176 with a standard deviation of 0.80772 and a mean difference of 1.6764 for the experimental group. This implies that cognitive behavioural therapy is effective in restructuring the mindset of in-school adolescents for psychological well-being.

**H<sub>02</sub>:** There is no mean difference in the rate of restructuring for psychological well-being between those exposed to cognitive behavioural therapy and the control at post-test?

**Table 4: Tests of Between-Subjects Effects**

Dependent Variable: CT					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
<b>TREATMENT GROUP</b>	1.859	1	1.859	2.864	.102
<b>CONTROL GROUP</b>	1.982	28	.661	1.018	.399
<b>Intercept</b>	12.272	1	12.272	18.883	.000

Table 4 showed that the observed difference between those exposed to cognitive behaviour therapy and the control at post-test produced an F value of 2.864 which is significant at a .102 probability level.  $F = 2.864$  is also not significant at  $p < 0.05$ . Thus, there is a significant difference in the rate of restructuring for self-development between those exposed to cognitive behaviour therapy and the control at post-test. Therefore, the null hypothesis is rejected. This simply implies that cognitive behaviour therapy is effective in restructuring the mindset of in-school adolescents for psychological well-being.

### Discussion of Results

The findings of the study in research question one and the hypothesis revealed that cognitive behaviour therapy was effective in restructuring the mindset of in-school adolescents for self-

development. Also, the result for research question two and the corresponding hypothesis showed that the mindset of in-school adolescents for psychological well-being can be restructured through the use of CBT. The above findings are in support of a review of 106 meta-analyses conducted by Hofmann and colleagues' which assessed CBT's efficacy in substance abuse; depression; anxiety; personality disorders; aggression; anger and criminal behaviours which are aspects of psychological well-being. in treating The findings revealed overwhelming support for Cognitive Behaviour Therapy as an effective psychotherapeutic treatment option for the risky behavioural patterns of in-school adolescents.

The above findings are in tune with Katsala, Mburza and Amuda (2020) that the goal of cognitive behaviour therapy is to restructure the thinking abilities of individuals, such that they will learn new positive behaviours, manage problems by recognising how their thoughts can affect their feelings and behaviour which are aspects of self-development and psychological well-being. The researchers agree with the above findings because many of our in-school adolescents develop distorted views about life due to the experiences to which they are exposed in their environments. Thus, they take decisions which expose them to untold risks due to their vulnerabilities such as addiction to drugs and alcohol, other deviant behaviours, feeling of hopelessness, and suicidal ideation among others. Also, the above finding supported the findings of the study reported by Morin (2020) which revealed that individuals who achieve self-development and higher psychological well-being are more likely to live healthier and longer lives; more likely to enjoy a better quality of life as well as experience fewer social problems. The researchers concur with the above report, as the goal of cognitive behavioural therapy is to restructure the thinking patterns of an individual, which are distorted by negative emotions.

To buttress the above, the National Research Council Institute of Medicine (2001), revealed that many in-school adolescents engage in risky behaviours owing to the feeling of hopelessness hence, they make decisions which put them at risk. As a result, they become vulnerable to physical and psychological harm which may negatively impact their long-term health and viability. Also, Chikwe (2014) revealed that when in-school adolescents are confronted with negative emotions such as anger, anxiety, depression and general dissatisfaction, they tend to manifest these problems through externalising problems such as; truancy, bullying, isolation problems, addiction to drugs and alcohol which place them at risk. Following the above reports, Kendra (2021) revealed that Cognitive Behavioural Therapy (CBT) is a psychotherapeutic treatment that assists individuals to learn how to identify and change destructive or disturbing thought patterns that have a negative influence on behaviour, worsen emotional difficulties, depression, and anxiety quality of life as well as experience fewer social problems.

Thus, based on the findings of this study, there is a need for professional counsellors to propagate the use of cognitive behavioural therapy in assisting in-school adolescents. This is because, the adolescence period is generally known to be marked with stress and storm and a great number of in-school adolescents are faced with different challenges which expose them to risky behavioural patterns likely to destroy them such as aggression, anxiety, depression, poor self-esteem, drugs use among others. This necessitates the need to restructure their mindsets to enable them develop the skills necessary to cope with the stresses, strains and emotions responsible for such risky behavioural patterns or lifestyles. Thus, they would become more fit and healthy, find their purpose in life, acquire more skills for success, improve personal relationships, develop a deeper level of



commitment and drive to face challenges, develop a higher level of self-esteem and positivity, and achieve autonomy, personal growth, environmental mastery, positive relationship with others, positive attitude and feelings of satisfaction and acceptance of oneself which are the goals of self-development and psychological well-being.

### Conclusion

From the findings of this study, it was concluded that cognitive behaviour therapy was effective in restructuring the mindset of in-school adolescents for self-development and psychological well-being.

### Recommendations

Based on the findings of this study, the following recommendations were made:

1. Cognitive behaviour therapy was effective in assisting in-school adolescents to achieve self-development. Therefore, professional counsellors should propagate its use in schools to assist the in-school adolescents to develop healthy personalities necessary for achieving their life goals.
2. Many in-school adolescents have risky behavioural patterns which impact negatively academic achievements such as substance abuse, depression, anxiety, personality disorders, aggression, anger and criminal behaviours. Hence, the use of CBT by professional counsellors is pivotal in assisting such in-school adolescents to achieve psychological well-being.

### References

- Agwogie, M. O. (2010). In Okon, A. (2018). Alcohol Intake among Senior Secondary School Students: Implications for Quality Leadership in Calabar Municipality. *Nigerian Leadership and the Psycho-social Issues*, 80-89. ISBN: 978-978-56161-6-3
- Andrew, B. & Wilding, J. M. (2004). The Relation of Depression and Anxiety to Life-stress and Achievement in Students. *Journal of Psychology*, 95(4): 509-21. Doi: 10.1348/0007126042369802.
- Doonwaard, S. M., Regina, J. J., Ejiden, M., Baams, L., Ine. V. & Tom, F. M. (2016). Lower Psychological Well-being and Excessive Sexual Interest Predict Internet Material among Adolescent Boys. *Journal of Youth and Adolescence*, 45 (1), 73-84. Doi: 10.1007/s10964-015-0326-9.
- Bauermeister, J., Michelle, M. J., Theo, G. M., Anna, E., Arnold, H. G. and Anthony, R. (2010). Relationship Trajectories and Psychological Well-being among Minority Youth. *Journal of National Library of Medicine*. Pubmed.ncbi.nlm.nih.gov oct; 39(10):1148-63. Doi:10.1007/s10964-010-9557-y
- Chamberline, A. J. (2015). *Deviant behaviour in Schools; The Effects of Examination Malpractice in Students' Performance*. Rapid Publishers.
- Chikwe, P. (2014). *Psychosocial Challenges of Students in Owerri*: an Unpublished M.ed. Thesis. Imo State University, Owerri.
- Cohen D. & Moncrieff, J. (2009). *How Do Psychiatric Drugs Work*fi <https://www.reseachgate.net>
- Deci' E. and Ryan, R. (2008). Facilitating Optimal Psychological Well-being across Life's Domain. *Canadian Psychological Association*, 49 (1): 14-23. Doi: 10.1037/0708-5591.49.1.14.
- Estevez, E. & Emler, P. (2011). Assessing The Links among Adolescent and Youth Offending, Antisocial Behaviour, Victimization, Drug Use & Gender. *International Journal of Clinical and*

- Health Psychology*, 11 (2), 269-289.
- Fernandez, K. (2017). *The 6 Most Common Self-improvement Goals (and How to Achieve Them)*. Envision By World Strides September, 8, 2017
- Kendra, C. (2021). What is Cognitive Behaviour Therapy (CBT)fi Very well mind. Updated on Nov 05
- Maina, N. S. (2008). Causes and Effects Of Deviant Behaviour among Secondary School Students: aCase Study of Kihumbuini Location, Thika Distric
- Larson, E. & Miller, T. B. (2014). Family Routine With The Ecological Niche: An Analysis of the Psychological Well-being of us Caregivers of Children With Disabilities. *Frontiers in Psychology*, 5: 495. Doi: 10.3389/fpsyg.204.00495.
- National Research Council Institute of Medicine (2001). *Adolescents Risk and Vulnerability; Concept and Measurement*. Retrieved from <http://www.google.com>.
- Oniyama, E. E. & Oniyama, H. O. (2001). *Counselling Nigerian Adolescents For Productive Adult Life in the New Millennium*. In. R. N. Okonkwo and R. O. Okoye 158 (eds). The Nigerian Adolescents In Perspective (pp. 241-219). A Publication of the Nigerian Society For Educational Psychologists.
- Otelehi, K. U. & Akunama, L. (2017). Some Psychosocial Challenges and Academic Achievement of Secondary School Students. *The Psychosocial Researcher Journal of the Nigerian Society For Psychosocial Research*, 7(1); 211-224
- Ryff, C. (2021). *Six Factor Model of Psychological Well-being*. Wikipedia, The Free Encyclopedia. Last Edited on 24, May 2021
- Santrock, J. W. (2005). *Adolescence*. 10<sup>th</sup> edition. The McGraw-Hill Companies. ISBN 0-07-290015-6. Boston
- White, L. B. (2004). Perceived School Safety and Psychological Well-being of Secondary School Students in Anambra State. *The Nigerian Educational Psychologists*, 14(2): 110-118.