



Original Research

COMBINATION INTERVENTION COGNITIVE BEHAVIOR THERAPY AND CONSULTATION LIAISON PSYCHIATRY NURSING ON ADOLESCENTS TO DECREASE ANXIETY PROBLEM

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ABSTRACT

Introduction: The existence of demands that occur simultaneously causes some adolescents to be unable to adapt properly, especially the condition of adolescents who experience changeable emotions, are unstable, easily stressed, feel anxious, depressed, and feel helpless. Combination Intervention Cognitive Behavior Therapy And Consultation Liaison Psychiatry Nursing (CICBTnCLPN) is a form of psychotherapy that can be used for adolescent emotional problems. The purpose of this study is to provide that a combination of CBT and CLPN interventions can further reduce adolescent anxiety levels, compared to only CBT interventions.

Method: The research type of quasi-experimental research, with a pretest-posttest control group design with two types of treatment, the population is adolescents with anxiety problems in the city of Surabaya. The research sample is 64 respondents with techniques systematic sampling. The independent variable combination of CBT and CLPN interventions (CICBTnCLPN) or CBT only, the dependent variable in this study is the level of anxiety. Data collection using an instrument in the form of a TIMAS. The data have been analyzed by Independent Sample T Test.

Result: The results of this statistical test indicated that there was a significant difference in the decrease in adolescent anxiety levels between the group that received the combination of CBT and CLPN intervention and the group that only received CBT intervention. The statistical test results showed a significant value or p-value of 0.002 or $P < 0.05$. It can be concluded that the combination intervention of CBT and CPLN is better at reducing anxiety levels than using only the CBT method.

Conclusion: CICBTnCLPN can further reduce adolescent anxiety levels. By changing the form of thought and the resulting consequences, the intensity of the subject's anxiety decreases.

Keywords

cognitive behavior therapy; consultation-liaison psychiatry nursing; anxiety problems; adolescents

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1. INTRODUCTION

Adolescence is a critical period because many events will not only determine the life of adulthood but also the quality of life for the next generation. According to data from the Indonesian Statistics Center, there are

22 176 543 people aged 15-19 years old and in the city of Surabaya itself it is estimated that the number of teenagers is 225 871 people.(Dinkes Jatim, 2021). Reports from epidemiological studies according to Kessler, in Marrison show that anxiety is the most

common problem during childhood and adolescence between the ages of 10-19 years, which if not taken seriously will make a person experience difficulties in his daily life. (Llorca et al., 2017). (Alghadir et al., 2020).

Based on the results of another study conducted on the determinants of emotional and mental symptoms in junior high school students in Indonesia, show that 60.17% of junior high school students with the most age of 13-15 years experience symptoms of mental and emotional problems. With the symptoms experienced, namely 44.45% felt lonely, 40.75% felt anxious, and 7.33% had ever wanted to commit suicide.(Mubasyiroh et al., 2017).

Anxiety disorders are one of the most commonly diagnosed psychiatric disorders in the child and adolescent population. According to one estimate, they are more common than all groups of child and adolescent psychiatric disorders.(Nazeer & Calles, 2012). Reports from epidemiological studies according to Kessler, in Marrison show that anxiety is the most common problem during childhood and adolescence between the ages of 10- 19 years old, which if not taken seriously will make someone experience difficulties in their daily life. (Ricci et al., 2012).

Adolescents with anxiety usually go undetected in primary health care. The best predictors of adolescent anxiety are angry states, aggressive behavior, empathic attention a lack of coping mechanisms that focus on problem-solving and the perception that stress is a threat.(Llorca et al., 2017). According to the Guidelines for Classification and Diagnostics of Mental Disorders (PPDGJ), signs and symptoms of anxiety can be described as feelings of fear & worry about several events/things or activities the patient finds difficult to control this worry, restlessness, irritability, fatigue, muscle tension, difficulty concentrating, disturbed sleep (difficult, frequent awakenings, sleepless nights).(Maslim, 2004)

According to Stuart and Sukamti. (Sukamti et al., 2019), (Stuart et al., 2016). Adolescence experiences biological, psychological, and social changes that require adolescents to be able to adapt because they experience many challenges and conflicts, are looking for self-identity, have high ideals, and like to fantasize/exaggerate fantasies. The existence of demands that occur simultaneously causes some adolescents to be unable to adapt properly, especially the condition of adolescents who experience changeable emotions, are unstable, easily stressed, and feel anxious, depressed, and feel helpless.

Risk factors for mental and emotional disorders in adolescents can be viewed from changes in various aspects including biological, psychological, and socio-cultural aspects. Changes in the biological aspects of adolescents, namely brain development where changes occur in the neuron system which causes a faster physical response to stress, hormones, and neurotransmitters that affect adolescent behavior

which results in extreme emotional responses such as mood swings, anxiety, and outbursts.(Stuart et al., 2016).

Many actions in the treatment of mental disorders are ways of influencing the body's serotonin system. Several studies have found a decrease in the neurotransmitters serotonin, norepinephrine, dopamine, acetylcholine, and an increase in the concentration of monoamine oxidase in the brain in someone who is experiencing anxiety.

Other studies have shown that the neurotransmitters associated with anxiety pathology are serotonin and epinephrine. Serotonin (5HT) disorders have implications for several types of mental disorders including anxiety, depression, psychosis, migraine, sexual dysfunction, sleep, cognitive, and eating disorders.(Talati et al., 2017). So besides influencing mood, the Serotonin hormone also plays a role in various other body functions, such as digestion.(Talati et al., 2017), which can affect the development of children and adolescents. Preventive and curative efforts need to be made to prevent or reduce the number of incidents, especially for adolescents who experience anxiety or depression where it is difficult for people to get medicines to overcome these problems.(Gautam et al., 2020).

Cognitive Behavior Therapy (CBT) is a form of psychotherapy that can be used for adolescent emotional problems which aim to eliminate signs, symptoms, or emotional problems by changing and rebuilding positive and rational cognitive status so that they have healthy behavior and somatic reactions. (Verdurmen et al., 2017). The main procedure principles of CBT are to provide prolonged and continuous exposure to feared or anxiogenic stimuli (sometimes obsessions) and prevention of responses that normally reduce anxiety (such as compulsions).

Standard psychotherapy for anxiety can use relaxation therapy, self-knowledge-oriented psychotherapy, cognitive therapy, behavioral therapy, group therapy, or short-term anxiety provocation therapy. The results of the study indicate that CBT therapy is recommended to be continued in its application to manage anxiety because CBT can reduce the patient's anxiety. (Crowe & Mckay, 2017). Based on the results of Shean's research on the effects of CBT and psychotherapy with psychopharmaceuticals, it was found that the two had very significant differences.(Gautam et al., 2020).

Consultation-Liaison psychiatry (CLP) is known as psychosomatic intervention, which is a subspecialty of psychiatry that focuses on treating patients with psychiatric comorbidities and general medical conditions. In addition, CBT and CLPN integration interventions can cause changes in brain wave activity (prefrontal cortex, limbic system, and hypothalamus) which increase emotional regulation, increase neurotransmitters that affect positive emotional states such as serotonin, melatonin, beta-endorphin, and acetylcholine, decrease

neurotransmitters that increase distress such as nor-epinephrine and cortisol. (Hoyer et al., 2017). Consultation Liaison Psychiatry (CLP) is an interpersonal educational process in which a consultant collaborates with a person or group of people who influence and participate in the health care system and need guidance in solving disorders, especially mental disorders.(Leentjens & Lobo, 2011). The purpose of this study is to provide that a combination of CBT and CLPN interventions can further reduce adolescent anxiety levels, compared to only CBT interventions.

2. MATERIALS AND METHODS

2.1 Design

This research uses a quasi-experiment, with a pretest-posttest control group design with two types of treatment.

2.2 Population and Sampling

The research population is adolescents with anxiety problems in three junior high schools (SMP) in the city of Surabaya. The research sample is 64 respondents with techniques systematic *sampling*. Inclusion criteria include 1) adolescents aged 12–18 years, 2) junior high school students living in the city of Surabaya, 3) experiencing mental emotional anxiety problems as measured by a score with SRQ-29, 4) willing to take part in a combination of CBT and CLPN interventions (*CICBTnCLPN*) or CBT intervention only, 5) willing to participate in the study and get permission from parents (father/mother).

2.3 Variables and Instruments

The independent variable combination of CBT and CLPN interventions (*CICBTnCLPN*) or CBT only, the dependent variable in this study is the level of anxiety. Data collection uses instruments in the form of an anxiety questionnaire using the TIMAS scale (Taylor Manifest Anxiety Scale) which consists of 50 true or false questions that a person answers by reflecting on themselves. The total value indicates the level of anxiety which is divided into 3, namely severe, moderate, and mild.

2.4 Procedure

The research procedure carried out activities in stages 1) identifying phenomena and feasibility studies on subjects and research sites as well as conducting preliminary studies on research-related materials, 2) the process of obtaining research ethical clearance from the Ethics Commission of the Faculty of Medicine, Diponegoro University, 3) secondary data collection, preparation of intervention modules, preparation of research instruments and trials of research instruments, and identification of research samples, 4) to equalize perceptions with research enumerators and conduct Cohen's Kappa Consistency Test researchers and research enumerators, 5)

perform the first (pretest) and second (posttest) measurement of anxiety level data per the data collection protocol before and after it is carried out *CICBTnCLPN*, 6) *CICBTnCLPN* given eight sessions, each session for 45 minutes in five meetings. 7) The CBT intervention provides five sessions, each session lasting 45 minutes in three meetings. Treatment interventions carried out by research investigators that had gone through Cohen's kappa consistency tests and guided modules. Each session in the study is given individually in each meeting.

2.5 Data Analysis

Data from the research this is analyzed using an independent Sample T-Test with the help of SPSS version 21.

2.6 Ethical Clearance

Ethical clearance with number No.75/EC/KEPK/FK-UNDIP/III/2022 obtained from Health Research Ethics Commission (KPEK) Faculty of Medicine, University of Diponegoro Semarang before data collection. At the time of data collection, the researcher explained the reasons for the research, outlined the rights of the respondents and only involved respondents who were willing to complete informed consent. All information about respondents is kept confidential and only used for research purposes.

3. RESULTS

Based on the data presented in Table 1, it is known that in experimental group 1 most of the respondents were female, aged 16 years 7 months to 18 years 6 months, grade 9, had a body weight of 51-60 kg, parents worked as private employees, parents income 3-5 million, 2nd child, has knowledge in the tofu category, has an authoritarian parenting style, and receives support. Then in experimental group 2 most of the respondents were female, aged 16 years 7 months to 18 years 6 months, grade 8, had a body weight of 40-50 kg, parents worked as private employees, parents income 3-5 million, 2nd child, has knowledge in the tofu category, has an authoritarian and democratic parenting style, and receives support.

From the data presented in Table 2. Based on the descriptive analysis, it can be seen that in experimental group 1 and experiment 2, on average, there was a decrease in anxiety levels after being given *CICBTnCLPN* in experimental group 1 and the intervention CBT alone in experimental group 2.

Based on the data presented in Table 3, it is known that in the Experiment 1 group, anxiety in the mild category increased by 34.4% from pre-intervention to post-intervention, while in the Experiment 2 group, anxiety in the mild category increased by 12.5% from pre-intervention to post-intervention. This shows that the increase in anxiety in the mild category of experimental group 1 is higher

Table 1. Distribution of Frequency based on Demographic Data (n=64)

Variable	Category	Eksperimen (n=32)		Control (n=32)		p value
		n	%	n	%	
Female	Female	8	25,0	13	40,6	0,096
	Female	24	75,0	19	59,4	
Age	12 - 14,6 y.o	13	40,6	6	18,8	0,001
	14,7 - 16.6 y.o	0	0,0	10	31,3	
	16,7 - 18,6 y.o	19	59,4	16	50,0	
Class	7 th grade	9	28,1	4	12,5	0,434
	8 th grade	10	31,3	15	46,9	
	9 th grade	13	40,6	13	40,6	
Weight	< 40 kg	2	6,3	2	6,3	0,367
	40 - 50 kg	8	25,0	13	40,6	
	51 - 60 kg	13	40,6	10	31,3	
	61 - 70 kg	6	18,8	5	15,6	
	71 - 80 kg	2	6,3	2	6,3	
	> 80 kg	1	3,1	0	0,0	
Parental profession	Unemployed	3	9,4	4	12,5	0,287
	Civil Service	2	6,3	4	12,5	
	Private Employee	17	53,1	15	46,9	
	Police/TNI	4	12,5	5	15,6	
	Self-employed	6	18,8	4	12,5	
Parental Income	3-5 Million	24	75,0	23	71,9	0,360
	>5 - 8 Million	7	21,9	5	15,6	
	> 8 Million	1	3,1	4	12,5	
Birth sequentially	1 st child	12	37,5	10	31,3	0,665
	2 nd child	14	43,8	16	50,0	
	3 rd child	6	18,8	5	15,6	
	more than 3	0	0,0	1	3,1	
Subject knowledge	No	8	25,0	11	34,4	0,171
	Yes	24	75,0	21	65,6	
Parenting style	Authoritarian	13	40,6	9	28,1	0,366
	Democratic	9	28,1	9	28,1	
	Permissive	5	15,6	8	25,0	
	Neglectful	5	15,6	6	18,8	
Family support	No	7	21,9	12	37,5	0,200
	Yes	25	78,1	20	62,5	

than that of experimental group 2.

Then it was found that in experimental group 1 the level of anxiety in the moderate category increased by 9.4% from pre-intervention to post-intervention, while in experimental group 2 the anxiety in the moderate category increased by 12.5% from pre-intervention to post-intervention.

Furthermore, it was found that in experimental group 1 the level of anxiety in the severe category decreased by 43.8% from pre-intervention to post-intervention, while in experimental group 2, anxiety in the severe category decreased by 25.0% from pre-intervention to post-intervention.

Table 4. shows that there is a difference in the mean/average anxiety in the group given CICBTnCLPN namely 19.2813 with the group that was given the CBT intervention alone 26.3750. Average anxiety in groups CICBTnCLPN lower than anxiety in the group that only received CBT interventions. The

table above also shows a significant value or p-value of 0.002 or $P < 0.05$. The results of this statistical test indicated that there was a significant difference in the decrease in the level of adolescent anxiety between the groups that received the intervention CICBTnCLPN with the group that only received CBT intervention. It can also be concluded that CICBTnCLPN better at reducing anxiety levels than just using CBT interventions only.

4. DISCUSSION

The results of this statistical test indicated that there was a significant difference in the decrease in adolescent anxiety levels between the group that received the combination of CBT and CLPN intervention and the group that only received CBT intervention. The statistical test results showed a significant value or p-value of 0.002 or $P < 0.05$. It can

Table 2. Anxiety levels description (n=64)

Descriptive	Experiment 1 (n=32)		Experiment 2 (n=32)	
	Pre Intervention	Post Intervention	Pre Intervention	Post Intervention
Minimum	13.00	5.00	13.00	7.00
Maximum	44.00	33.00	41.00	44.00
Means	29.6250	19.2813	30.6250	26.3750
Standard Deviation	7.81954	8.34821	8.16661	8.81256

Table 3. Anxiety Level Categoric

Category	Experiment 1 (n=32)		Experiment 2 (n=32)	
	Pre Intervention	Post Intervention	Pre Intervention	Post Intervention
Mild Anxiety	5 (15.6%)	16 (50.0%)	4 (12.5%)	8 (25.0%)
Moderate Anxiety	4 (12.5%)	7 (21.9%)	6 (18.8%)	10 (31.3%)
Severe Anxiety	23 (71.9%)	9 (28.1%)	22 (68.8%)	14 (43.8%)

Table 4. Analysis CICBTnCLPN and interventions CBT only

Variable	Group	$\bar{x} \pm SD$	std. Error Means	Sig.
Anxiety Level	Experiment 1 (n=32)	19.2813±8.34821	1.47577	0.002
	Experiment 2 (n=32)	26.3750±8.81256	1.55786	

be concluded that the combination intervention of CBT and CPLN is better at reducing anxiety levels than using only the CBT method.

CBT is currently recommended for treating anxiety and depression by the National Institute for Health and Care Excellence (NICE) in the UK.(David Rubenstein, 2018). The cognitive behavioral approach is based on the concept that psychological problems such as depression, anxiety, and stress are often exacerbated by overthinking. CBT practitioners, then help patients identify their mindsets and change their behavior using evidence and logic, CBT appears to be effective for improving a person's psychological health. This is supported by the results of Fennell's research.(Fennell, 2016) a meta-analysis of 115 studies has shown that CBT is an effective treatment strategy for depression and that combination treatment with pharmacotherapy is significantly more effective than pharmacotherapy alone. Evidence also suggests that the relapse rate of patients treated with CBT is lower compared with patients treated with pharmacotherapy alone.(Association, 2023). Ezegbe et al., (2019) examined the impact of cognitive-behavioral interventions on anxiety and depression among Nigerian undergraduate students enrolled in social science education majors. They found that cognitive-behavioral therapy had a significantly positive impact on reducing levels of anxiety and depressive symptoms among study participants in the cognitive-behavioral therapy group compared to the wait-list

control group. They also found that significant reductions in anxiety and depression levels among participants in the cognitive-behavioral therapy group persisted at a 3-month follow-up evaluation.(Ezegbe et al., 2019). These results support findings from previous research, which demonstrated the long-term benefits of cognitive-behavioral therapy in maintaining reduced anxiety and depression (David Rubenstein, 2018). To avoid the negative impact of anxiety, it is necessary to carry out certain interventions. In this study, researchers used the CICBTnCBT intervention to overcome anxiety. This is supported by the statement put forward by Meriçtan, AE, & Sevi (2017) which states that CBT can be given to children to adolescents with behavioral disorders, such as angry behavior, opposing behavior, and destructive behavior and anxiety.(Meriçtan & Sevi, 2019). CBT does not only focus on changes in the nerves that exist in the body or on changes in behavior but rather on the existence of cognitive distortions in the subject and by following therapy it is hoped that it can help solve the subject's psychological problems.(Kaczurkin & Foa, 2022). The basic assumption of the CBT approach is that overt behavior is influenced by cognitive processes, and these processes can influence a person's behavior. The CBT therapy provided is related to social skills, problem-solving, and anxiety management.(Meriçtan & Sevi, 2019). The emergence of problems that become factors causing anxiety related to the existence of beliefs and cognitive

distortions that are wrong in dealing with a problem. Kaczurkin said that emotional and behavioral problems in children arise as a result of cognitive dysfunction or irrational thoughts. On the subject, the cognitive dysfunction that occurs is that the subject has the perception that all the wishes of the subject must be fulfilled, and the perception that other people will insult the subject because of their poor economic situation. (Kaczurkin & Foa, 2022). Intervention with CBT, intervention without only focuses on changing behavior but also on cognitive influences that affect children's behavior, so they can manage their anxiety. CBT interventions do not only focus on changes in the nerves that exist in the body or on changes in behavior, but rather on the existence of cognitive distortions in the subject, and by participating in therapy it is hoped that it can help solve the subject's psychological problems. On this basis, CBT is seen as a more suitable intervention to be applied to the subject. It is hoped that with CBT, the subject's cognitive distortions can change so that the intensity of the subject's anxiety decreases, the subject is more adaptive and can carry out his adaptive function properly. After receiving CBT intervention in several sessions, slowly the subject's negative thoughts began to decrease or even completely disappear. Subjects can even think positively and rationally. Cognitive restructuring techniques help subjects change their negative thoughts into

more rational and positive alternative thoughts. In practice, to overcome tense situations, relaxation is applied to achieve a relaxed state. Finally, the whole series of CBT processes can overcome the cognitive side of the subject by modifying cognitive distortions into realistic-positive thoughts based on self-report analysis, observation, and interviews, overcoming the affective side with a relaxation process that can bring calm when anxiety arises. Relaxation is applied to achieve a relaxed state. Finally, the whole series of CBT processes can overcome the cognitive side of the subject by modifying cognitive distortions into positive-realistic thoughts based on self-report analysis, observation, and interviews, overcoming the affective side with a relaxation process that can bring calm when anxiety arises. Based on the results of Curth's research (2019) found that the collaborative and liaison model of care/Consultation Liaison proposes organizational changes to improve the quality of care for people with common mental disorders, such as anxiety and depression. (Curth et al., 2019). Some literature suggests only short-term positive effects of Consultation-Liaison on patient-

related outcomes, whereas collaborative care shows positive short-term and long-term effects, based on research by Curth (2019). Barnett states that CLP can help identify patients who would benefit from psychedelic-assisted therapy and facilitate their transition to medication.(Barnett & Greer, 2021). Nonetheless, CLP may pose new challenges if non-medical use and self-medication efforts with psychedelics increase, including managing more frequent side effects such as "bad trip" and serotonin syndrome. Given that depressive symptoms in medically ill patients are long-lasting. (Peveler et al., 2002) their results underscore the benefits of an integrative approach that respects the complexity of the disease and that cares for patients after discharge from the hospital in the form of integrated case management. (Henningsen et al., 2018).

Based on Table 4, it can be seen that the results of statistical test analysis with paired t-tests on all variables produce a significance value of $< \alpha$ (5% or 0.05). Therefore, it can be stated that there is a significant difference in the level of anxiety before and after it is given CICBTnCLPN, or in other words, there is a significant effect of the combination treatment of CBT and CLPN interventions on anxiety levels. The average value of the anxiety level in the post-intervention was higher than the pre-intervention indicating that the administration CICBTnCLPN able to reduce significantly anxiety level. Trivedi et al. research results. demonstrated that CBT interventions in advanced cervical cancer patients can increase serotonin levels, reduce depression scores and improve quality of life.(Trivedi et al., 2008).

Cognitive behavioral therapy is a nursing therapy that can help patients not experience anxiety. (Halter & Varcarolis, 2014). According to Stuart, the goal of cognitive behavioral therapy is to increase activity, reduce unwanted behavior, increase desired behavior, increase satisfaction, and achieve social skills. Cognitive behavioral therapy is an intervention that is considered effective for treating psychotic symptoms and reducing the risk of relapse and dealing with anxiety.(Stuart et al., 2016). CBT is very good for teenagers because it is a therapy that teaches types of coping strategies to deal with environmental pressures and this is one of the solutions that can be given to teenagers who experience anxiety.

Intervention CICBTnCLPN given as many as 8 sessions with interviews guided by the module package, where each session is 45 minutes, in each meeting 2 sessions are carried out held for five days and lasted \pm 2 hours for each meeting. Interventions in this study were provided in the form of psychoeducation, discussion, relaxation, role-playing, exposure, and giving tasks to be carried out so that the subject gained a deeper understanding of the anxiety experienced. Each material given at each meeting has its own goals and objectives for the symptoms of anxiety disorders experienced by the subject.

The next stage is follow-up measurement after the intervention is given by giving back the TIMAS questionnaire to find out whether the effectiveness of the intervention CICBTnCLPN better than CBT intervention alone nature lowers the level of anxiety in adolescents. Subjects were invited to share their experiences after the intervention was carried out. It was said to be effective because it met the criteria required in this study, namely decreased levels of anxiety, reduced even loss of negative thoughts and behaviors, and subjects were more able to think positively and rationally, until the follow-up period.

Based on the data presented in Table 3, it is known that in the Experiment 1 group, anxiety in the mild category increased by 34.4% from pre-intervention to post-intervention, while in the Experiment 2 group, anxiety in the mild category increased by 12.5% from pre-intervention to post-

intervention. This shows that the increase in anxiety in the mild category of experimental group 1 is higher than that of experimental group 2.

Then it was found that in experimental group 1 the level of anxiety in the moderate category increased by 9.4% from pre-intervention to post-intervention, while in experimental group 2 the anxiety in the moderate category increased by 12.5% from pre-intervention to post-intervention.

Furthermore, it was found that in experimental group 1 the level of anxiety in the severe category decreased by 43.8% from pre-intervention to post-intervention, while in experimental group 2, anxiety in the severe category decreased by 25.0% from pre-intervention to post-intervention. This shows that the reduction in anxiety in the weight category of the Experiment 1 group was higher than that of the Experiment 2 group.

After receiving the CICBTnCLPN intervention in several sessions, slowly the subject's negative thoughts began to decrease or even completely disappear. Subjects can even think positively and rationally. Cognitive restructuring techniques help subjects change their negative thoughts into more rational and positive alternative thoughts. In practice, to overcome tense situations, relaxation is applied to achieve a relaxed state. The CBT process carried out on adolescents consists of how adolescents are taught to Self-assessment, identifying negative automatic thoughts, Behavioral therapy, Evaluation of therapy, practicing the ability to change thoughts and adaptive behavior to reduce the risk of respondents returning to an anxious state. Meanwhile, on CICBTnCLPN. Adolescents are given added abilities and opportunities for consultation and exploration of expectations, reinforcement, and support systems.

In adolescents who have had the CICBTnCLPN intervention, it was found that therapy can significantly reduce the level of anxiety in adolescents. The effectiveness of the CICBTnCLPN intervention is because adolescents gain the ability and opportunity to consult and explore hope, reinforcement, and support systems that teach types

of coping strategies and protection against environmental pressures that may occur to accelerate change where this is not available from other psychotherapy.(Lücke et al., 2017). Coping strategies and ways of protecting against environmental pressures are things that are needed by adolescents with anxiety because external stressors are one of the stressors that play a very important role in causing anxiety in adolescents.

Table 4. shows that there is a difference in the mean/average anxiety in the group given CICBTnCLPN namely 19.2813 with the group that was given the CBT intervention alone 26.3750. Average anxiety in groups CICBTnCLPN lower than anxiety in the group that only received CBT interventions. The table above also shows a significant value or p-value of 0.002 or $p < 0.05$. The results of this statistical test indicated that there was a significant difference in the decrease in the level of adolescent anxiety between the groups that received the intervention CICBTnCLPN with the group that only received CBT intervention. It can also be concluded that CICBTnCLPN better at reducing anxiety levels than just using CBT interventions alone

The decrease in anxiety was higher in the group that was given additional ieintervention CICBTnCLPN, when compared to giving CBT only there is a difference of 70,937 points. Based on this it can be concluded that the intervention CICBTnCLPN better at reducing anxiety levels than just using CBT interventions only.

Many factors cause a person's anxiety, including in adolescents. Research by Mahoney compared anxiety experienced by young people and adults/old people, the results showed that younger people tend to have higher anxiety sensitivity (AS) and experiential avoidance (EA) compared to older people, on the contrary, older people have higher mindfulness traits.(Morgan et al., 2017). This is what causes young people to experience anxiety more easily than older people. The age factor may have influenced anxiety in this study, although the two groups were equivalent, in terms of the average age of adolescents in experimental group 1 which was higher than experimental group 2, the anxiety score after being given intervention CICBTnCLPN in group 1 can be lower anxiety levels than using CBT interventions alone. This can be a consideration for future research to limit a more appropriate age.

Another study conducted by Brown. examined anxiety in students who were about to face exams by comparing the administration of Acceptance Based Behavior Therapy (ABBT) and Cognitive Therapy (CT). The research results obtained showed a decrease in anxiety levels and an increase in test scores in the group that was given ABBT compared to CT. This shows that giving cognitive therapy is not effective enough in dealing with anxiety symptoms, further research is needed to treat anxiety symptoms, especially in adolescents. Based on this presentation it can be concluded that there was no significant difference between the two groups but the group that

was given additional added capabilities and opportunities for consultation and exploration of expectations, strengthening, and support systems of the CLPN intervention showed a lower anxiety level score.(Brown et al., 2011). Implementation success CICBTnCLPN influenced by internal and external factors. Internal factors include motivation within the subject to change, personality traits that are mature enough, and limited (not widespread) problem complexity. Motivation in the subject to change can be seen from their initiative and willingness to become research participants and their sincerity in following the given intervention step by step and several tasks, so that evaluation can be carried out effectively.

Nuzula explains that counseling and assistance are very important factors in changing individual behavior. Personality maturity is shown from his attitude during meetings, communication with friends and teachers individually makes intervention easier and faster to handle. Other things that support reducing subject anxiety are personality, self-acceptance, ability to understand oneself, openness to input, discipline to practice skills, and applying the results of training during mentoring.(Nuzula, 2015).

Several external factors influence success CICBTnCLPN also, among other things, the use of effective modules, and the use of objective measuring instruments to see how far the level of anxiety has decreased. Draft CICBTnCLPN it is based on an effective cognitive-behavioral approach to addressing psychological problems, including social anxiety and individual anxiety. A structured counseling and mentoring process makes it easier for the subject to describe his anxiety problems and to internalize the interventions that have been taught. This condition creates a feeling of being able to the subject so that the subject is more confident and lowers his level of anxiety.

Thus, even though the subject's anxiety has decreased, they still need support from the family, especially parents.

5. CONCLUSION

Based on the research that has been done it can be concluded that a combination of CBTnCLPN intervention has proven to increase serotonin levels and reduce adolescent anxiety levels.

The results of the subject's evaluation at each therapy session also showed a change for the better in terms of thoughts, feelings, behavior, and physiological conditions. By changing the form of thought and the resulting consequences, so that the intensity of the subject's anxiety decreases, the subject is more adaptive and can carry out his adaptive function well. It is suggested that schools can apply the results of this study to ease the burden on their students by identifying student anxiety using simple tools and providing interventions such as CBT and CLPN.

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