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THE EFFECTIVENESS OF COGNITIVE BEHAVIOR THERAPY IN REDUCING ANXIETY LEVELS: A SYSTEMATIC REVIEW

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Abstract

Cognitive Behavioural Therapy (CBT) has been recognised as a successful psychological method for reducing anxiety levels across a range of groups. This systematic review aims to assess the effectiveness of CBT in treating anxiety, especially given the increasing prevalence of anxiety. Anxiety is characterised by excessive fear and worry, which can significantly interfere with daily activities and social interactions. The review collated results from a range of studies published between January 2020 and May 2025, with an emphasis on randomised controlled trials and peerreviewed articles in the Indonesian language. The findings suggest that CBT can effectively reduce anxiety symptoms by helping individuals recognise and change their negative thought patterns, thereby encouraging the use of healthier coping strategies. Studies have shown the efficacy of CBT in a range of contexts, including educational settings and among healthcare professionals dealing with stressful situations. The conclusion of the review is that CBT is a structured, evidence-based method that can be applied individually or in groups, with an emphasis on the importance of consistent application and professional support to achieve good outcomes. Suggestions for future research include analysis of the long-term effects of cognitive behavioural therapy and its application across different demographic groups.

Keywords: Cognitive Behavioral Therapy (CBT), anxiety, psychological methods.

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INTRODUCTION

As individuals living in society, humans have various reactions to the pressures of life they face. One of these reactions is anxiety, an emotional disorder characterized by fear, worry, and excessive tension. This anxiety can have a negative impact on daily activities, social interactions, and academic and professional achievements (Rusdiatin, 2021).

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Among students, anxiety is a fairly common problem. Factors such as academic pressure, heavy workloads, concerns about graduating on time, and low self-confidence are often the triggers. As a result, many students experience a decrease in enthusiasm for learning, difficulty concentrating, and even withdrawing from the social environment due to anxiety that is not managed properly (Salsabila & Harahap, 2024; Farahmita & Paramita, 2024).

If not treated immediately, anxiety can develop into a more serious mental disorder. Therefore, a systematic intervention approach based on scientific evidence is needed. One of the methods is Cognitive Behavior Therapy (CBT) which is a method that has been proven to provide effective results.

CBT is a therapy model in psychology that aims to identify and change negative thought patterns to be healthier and more adaptive, so that it can improve an individual's emotional and behavioral responses (Grahatama et al., 2021; Suharnadi et al., 2024). Through CBT, individuals are helped to recognize and challenge automatic negative thoughts that trigger anxiety, while being taught healthier stress management strategies. CBT generally includes techniques such as cognitive restructuring, relaxation exercises, social skills training, and gradual exposure to situations that cause fear.

Various studies have shown that CBT is effective in reducing anxiety in various groups, including students with impostor syndrome, students with anxiety during online learning, adolescents with emotional regulation disorders, and young adults with social anxiety. In fact, an online version of this therapy (iCBT) has also been developed and shown to be effective, although in some studies the results have not been statistically significant.

CBT has been shown to be useful in overcoming various forms of anxiety experienced by students, ranging from academic anxiety, nervousness when speaking in public, to fear of facing a thesis or entering the world of work (Izzah et al., 2024; Safithry, 2022; Juniarti et al., 2023). This therapy is also flexible, can be applied both individually and in groups, and through digital media such as online applications (Garvert et al., 2025; Lai et al., 2025). This approach combines techniques such as self-talk, cognitive restructuring, relaxation exercises, and emotional regulation training (Wulandari, 2024; Zulaifi, 2022). However, although there have been many studies examining the effectiveness of CBT, the results of these studies are still separate and have not been systematically collected. Therefore, this study aims to conduct a systematic review of the effectiveness of Cognitive Behavior Therapy in reducing anxiety in college students, focusing on quantitative journals published between January 2020 and May 2025. This study is expected to provide a real contribution to the development of more appropriate psychological interventions in the college environment.

REASERCH METHODES

The study search strategy was conducted through PubMed and Google Scholar databases. In addition, additional articles were also identified through searches of previously recorded article references, including relevant systematic reviews and meta-analyses. The literature search process was conducted using the PICO approach, through the use of keywords such as: Cognitive Behaviour Therapy OR CBT AND Anxiety OR Anxiety AND Randomised Controlled Trial OR Controlled Clinical Trial OR Clinical Trial.

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The inclusion criteria in this systematic review include studies published between January 2020 and May 2025, limited to articles that have gone through a peer-reviewed process and written in Indonesian. The studies analyzed are all types of quantitative research that use Cognitive Behavioral Therapy (CBT) as an intervention, either online or manually, with a Randomized Controlled Trial (RCT) approach. The main focus of this review is on the results of research involving patient respondents who experience fear of students. Meanwhile, studies that are excluded are studies that combine CBT therapy with psychopharmacology in a control group, are conducted in a community context, or are in the form of the development of a specially designed educational program.

The quality assessment of the study was carried out using standardized tools and adjusted to the type of research method used. The data extraction process was carried out by reviewing the full contents of the article. The data taken covered a number of predetermined themes and subthemes. The title and abstract reviewed by the author were recorded in the eligibility assessment sheet as a candidate journal to be reviewed. The assessment of the eligibility of a journal is not only based on its abstract, but also requires a thorough review of the entire contents of the text. The journals included are those that meet the previously established inclusion criteria. The data synthesis process was carried out by grouping the extraction results based on the similarity of type and suitability to the variables to be measured. After the data was collected, an analysis of the similarities and differences was carried out to be discussed in depth.

Evaluation of research quality using standard tools and adjusted to the research methods used. By looking at the content of the article, data is extracted. This extraction consists of several topics and subthemes. The title and abstract that have been checked by the author are included in the eligibility assessment sheet for the future journal being reviewed. The eligibility test for a journal cannot be seen from the abstract alone, but must be seen in the full text. Journals that occur based on the specified inclusion criteria. Data synthesis is done by grouping data from the extraction results that are similar to the measured results. The data collected looks for similarities, and the differences are then discussed. Identifikasi studi baru melalui database dan register



NO	Author	Title	Study design	Research subjects	control	Intervention	Results
1	Annisa Rambe, Ahmad Syarqawi 2023	EFEKTIVITAS LAYANAN KONSELING INDIVIDU DENGAN PENDEKATAN COGNITIVE BEHAVIORAL THERAPY UNTUK MENGURANGI KECEMASAN BERKOMUNIKASI SISWA SMA NEGERI 4 TEBING TINGGI	Non- equivalent control group design	A total of 32 students	Not given the intervention	Individual counseling with CBT approach	The results of this study indicate a difference. communication anxiety obtained an average value of 34.3 in the experimental group and 33.4 in the control group. This is in line with the results of t testing obtained from t count. 7.209 while t table 2.776. If there is acceptance, then Ho will be rejected. The item presents that individual counseling with a cognitive behavioral therapy approach significantly reduces students' communication anxiety.

2	Dire Avu Nerde	COGNITIVE	Dro	11 students of	No control group	Cognitive Robertional Thereney	Thora is a significant
2	Dira Ayu Nanda Oktowia		Pra-	11 students of	No control group	Cognitive Behavioral Therapy	There is a significant
	Oktavia,	BEHAVIOR	eksperimenta	class XI SMAN		(CBT) in group counseling uses	reduction in anxiety
		THERAPY UNTUK	l one group	Krian Sidoarjo		techniques to stop negative	levels after students
	Moesarofah 2022	MENGURANGI	pretest-			thoughts.	follow cognitive
		KECEMASAN	posttest				behavioral therapy.
		PEMBELAJARAB	design				The significance
		JARAK JAUH					value obtained is
							0.003 (Sig. <0.05), so
							the alternative
							hypothesis (Ha) is
							accepted. The
							decrease in anxiety
							occurred in
							cognitive, emotional,
							and physiological
							areas. There was a
							more significant
							effect on cognitive
							aspects (49.18 ±
							11.02), followed by
							physiological aspects
							(27.64 ± 5.78) and
							emotional aspects
							(27.64 ± 5.78). CBT
							has been proven to
							successfully reduce
							anxiety in distance
							learning.
3	Edo Prasatio	EFEKTIVITAS	Quasi-	This study		Cognitive Behavior Therapy	The study findings
-	Grahatama, Dewi	COGNITIVE	experiment	involved ten		(CBT)	indicated that group
	,	BEHAVIORAL	method with			, ,	CBT successfully
		THERAPY (CBT)	a non-				,

	Sartika, Suci	KELOMPOK	equivalent	students as			reduced student
	Nugraha 2021	UNTUK	control group	respondents.			anxiety by 45%.
		MENURUNKAN	design				
		KECEMASAN					Paired Sample T Test
							0.000 < 0.05
							indicates a difference
							in anxiety levels
							before and after the
							treatment is given.
							Independent Sample
							T Test 0.004 < 0.05
							indicates a difference
							in anxiety levels
							between the
							experimental group and the control
							group.
4	Rania Fakhirah	Dampak Pelatihan	Quasi-	6 students All	No control group	The intervention consisted of	The results showed
	Khairunnisa, Lia	Regulasi Emosi	experiment	participants		five training sessions delivered in	that there was a
	Mawarsari	Menggunakan	with one	were female		1.5-3 hours for each session. The	significant decrease
	Boediman 2024	Pendekatan	group pre and	and aged 14-		intervention module covers skills	in anxiety after the
		Terapi Kognitif	post test			in emotion management,	participants
		Perilaku Terhadap	design	,		including recognizing and	attended the
		Tingkat	C	the time of		understanding emotions,	training, but the
		Kecemasan Pada		the		regulating, and expressing	decrease in emotion
		Remaja		intervention		emotions	dysregulation could
		- , -				-	not be considered
							significant.
						There are 5 sessions which	0
						include:	
							The decrease in
							anxiety level was

r		 		·
			Session 1: Skills for Recognizing	recorded at 24.5%,
			and Understanding Emotions	while the decrease in
				the level of emotion
			Session 2: Managing Emotions:	dysregulation
			Meeting Basic Needs and	reached 10.3%. In
			Appropriate Emotional	the follow-up
			Responses Session 3: Regulating	process a month
			Emotions: Enhancing Positive	after the last session
			Emotions	of the intervention,
			2	the decrease in the
				level of emotion
			Session 4: Utilizing Thoughts to	dysregulation
			Manage Feelings Session 5:	reached 19% and the
			Expressing Emotions.	decrease in anxiety
				level reached 37%.
				The mindfulness
				techniques taught in
				the intervention,
				such as conscious
				breathing, body
				scanning, and
				creating a "safe
				place"
				in their minds,
				greatly helped them
				to be calmer. Social
				support from friends
				contributed greatly
				to the increased

							effectiveness of the intervention.
5	Immanuela Indraningtyas Wulandari 2024	Internet-based Cognitive Behavior Therapy untuk Mengurangi Kecemasan Sosial pada Dewasa Awal	Non- experimental	3 people aged 18-25 years		Internet cognitive behavior therapy (ICBT)	The level of social anxiety was assessed using the Social Anxiety Scale before and after participating in the ICBT program, and monitoring was carried out for 7 weeks after the ICBT intervention. Statistical analysis of the study using the Friedman Test (p = 0.97 p> 0.5) did not show a significant decrease in the level of social anxiety.
6	Normalia, Herdina Indrijati 2022	Efektivitas Cognitive Behavior Therapy untuk Menurunkan Kecemasan	Single-case design dengan desain ABA.	Sampel terdiri dari satu klien (N=1) yang berumur 24 tahun	Tidak ada kelompok kontrol	Terapi kognitif perilaku (CBT) singkat selama dua bulan. Terdiri dari 3 sesi observasi dan evaluasi awal, serta 5 sesi CBT dengan lama waktu 90 menit untuk setiap sesi	Perubahan level kecemasan diukur dengan menggunakan Tailor Manifest Anxiety Scale (TMAS). Skor TMAS sebelum tes adalah 23 (kategori cemas) dan setelah

		Mahasiswa Terhadap Dosen			Intervensi CBT mencakup metode seperti pernapasan dalam, pengubahan cara pandang, gambar mental, verifikasi pendapat atau fakta, pencarian bukti yang mendukung dan menentang, serta penyelesaian masalah.	tes adalah 19 (kategori tidak cemas). Penurunan skor ini mengindikasikan keberhasilan intervensi CBT
7	Syafani Salsabila, Ade Chita Putri Harahap 2024	Pengaruh layanan konseling individual dengan pendekatan cognitive behaviour therapy (CBT) terhadap penanganan masalah kecemasan tidak lulus tepat waktu pada mahasiswa	Pre- Experimental One-Group Pretest- Posttest Design	5 mahasiswa yang memiliki tingkat kecemasan tinggi.	layanan konseling pribadi dengan teknik CBT	Terapi individu menggunakan CBT efektif dalam menurunkan rata- rata skor kecemasan (posttest) jika dibandingkan dengan (pretest), yang dapat dilihat dari hasil uji Wilcoxon dengan nilai probabilitas Asymp.Sig. Kecemasan yang tidak terselesaikan tepat waktu oleh peserta penelitian sebelum dan sesudah perlakuan

						1		
								mencapai 0,043 atau
								probabilitas di
								bawah alpha 0,05
								(0,043 < 0,05). Ini
								menunjukkan bahwa
								Ho ditolak dan Ha
								diterima, sehingga
								dapat disimpulkan
								bahwa penerapan
								layanan konseling
								individu dengan
								pendekatan CBT
								berdampak pada
								pengurangan
								kecemasan tidak
								lulus tepat waktu
								bagi mahasiswa
								akhir.
8	2	Chozina Nauvalia,	KONSELING	single case	24 year old	There is no	Cognitive Behavior Therapy	After attending 7 CBT
	, ,	et al 2023	KOGNITIF	experimental	student	control group	(CBT) is conducted in 7 sessions,	counseling sessions,
			PERILAKU DALAM	design	currently	control Broup	each session lasting 60 minutes.	participants'
			MENURUNKAN	acoign	studying		CBT counseling includes	academic anxiety
			KECEMASAN		dentistry.		behavioral therapy, cognitive,	scores decreased by
			AKADEMIK PADA		uchtisti y.		Socratic dialogue, and breathing	32 points. Before the
			MAHASISWA				control techniques.	intervention,
			DENGAN				control techniques.	participants felt a
			SINDROM					high level of
			IMPOSTOR					academic anxiety,
								but after the
								intervention, their
								academic anxiety
								decreased to the
	I							

	[1	[
					moderate category.
					Participants
					experienced positive
					developments in
					their thoughts and
					behaviors, such as:
					Decrease in negative
					thoughts about
					incompetence.
					Increased confidence
					in personal
					competence and
					ability.
					Deduced hehewien of
					Reduced behavior of
					avoiding
					responsibility and
					starting to treat
					patients.
					Can reduce
					physiological
					responses due to
					anxiety with
					breathing control
					techniques. The p-
					value recorded in this
					publication is 0.043.
					This is obtained from
					the Wilcoxon Signed

									Rank Test comparing anxiety levels.
9	Stefan G. Hofmann, et al 2025	Effect sizes of randomized- controlled studies of cognitive behavioral therapy for anxiety disorders over the past 30 years	RCT	A total of 3645 participants from 49 studies evaluated the effectiveness of CBT for various types of anxiety disorders, such as Generalized Anxiety Disorder (GAD), Social Anxiety Disorder (SAD), Obsessive- Compulsive Disorder (OCD), Post- Traumatic Stress Disorder (PTSD), specific phobias, and sudden onset stress disorder (ASD).	placebo (psychological or drug) or non- specific additional therapy	Cognitive (CBT)	Behavioral	Therapy	Meta-analysis showed that CBT was superior to control in reducing anxiety symptoms, with an effect size (Hedges' g) of 0.51. There was a significant difference in effect size across diagnostic groups, with OCD showing the highest effect size (0.96) and PTSD having the lowest effect size (0.31). Meta- regression showed that there has been no significant change in CBT effect sizes over the past three decades. Although CBT is successful in reducing anxiety symptoms, this study suggests that there has been no significant increase

						over the past 30 years.
10	REZA ZULAIFI, 2022	EFEKTIFITAS KONSELING KELOMPOK DENGAN TEKNIK SELF-TALK UNTUK MENGURANGI TINGKAT KECEMASAN AKADEMIK SISWA KELAS X SMKN 2 MATARAM	non- equivalent group pretes- posttest design.	The subjects of this study consisted of 16 grade X students selected using purposive sampling technique.	Group counseling services apply a cognitive behavioral therapy (CBT) approach with self-talk techniques, lasting 100 minutes in each session.	The Cognitive Behavior Therapy (CBT) method uses self-talk techniques which are effective in reducing students' academic anxiety, with the following statistical analysis results (Z = -2.52, p = 0.012 < 0.05).
11	Lia Luthfi Savitri ,M. Ramli,Widya Multisari 2023	Keefektifan Konseling Kelompok Cognitive Behavioral dengan Teknik Self-Talk untuk Mengurangi Kecemasan Mahasiswa Semester Akhir dalam Penyelesaian Skripsi	single-group pretest and posttest design	30 students of Malang State University class of 2018	Providing cognitive behavioral group counseling services with self-talk techniques	The results of the analysis showed a significant change in values between the pretest and posttest values, which indicates that cognitive behavioral counseling is effective in reducing the anxiety of final year students when completing their thesis.

12	Letrince Paula Awek, Afif Kurniawan 2022	Efektifitas Terapi Kognitif Behavior untuk Menurunkan Tingkat StresMahasiswa Penerima	one group pretest and posttest, kuasi eksperimen.	3 students aged between 21 and 24		Cognitive Behavioral Therapy (CBT)	The results of the difference analysis showed a significant value of 0.018 (p > 0.05) which indicated a significant difference in stress
		Beasiswa Tingkat Akhir Dalam MengerjakanSkri psi					levels after the training was implemented.
13	Dian Fitri 2017	EFEKTIVITAS COGNITIVE BEHAVIOR THERAPY UNTUK MENURUNKAN KECEMASAN BERBICARA DI DEPAN UMUM PADA MAHASISWA	Single-case experimental	A 20-year-old student who experiences anxiety when speaking in public.	There is no control group	CBT includes: psychological education, dialogue, relaxation techniques, role-playing, exposure, and assignments to work on so that individuals gain a better understanding of the anxiety they feel.	The results of this study indicate that CBT can reduce the level of anxiety felt by participants. This can be seen from the measurement of the subject's anxiety level using the SUD score, which showed 40%-80% in the pre- test, 35%-50% during the intervention, and after the intervention decreased and stabilized at 10%.

14	lffah Nurul Izzah et all 2024	Pengaruh Konseling Kognitif Perilaku (CBT) Terhadap Kecemasan Akademik pada Mahasiswa	Single-case experimental design.	An 18-year-old female student who is studying for a Bachelor's degree in Accounting at a university in Surabaya and is experiencing academic anxiety, especially in Accounting courses.		Counseling focused on Cognitive Behavioral Therapy (CBT) consisting of five sessions. Each session emphasizes different elements of CBT, such as building rapport, recognizing negative thoughts and beliefs, planning new, more adaptive behaviors, and closure.	The pre-intervention score indicated a high level of anxiety (score 71), while the post-intervention score indicated a moderate level of anxiety (score 53). This decrease in value reflects the success of the intervention, although without statistical significance analysis.
15	Mona M Garvert, et al 2025	Safety and Efficacy of Modular Digital Psychotherapy for Social Anxiety: Randomized Controlled Trial	RCT	Total350participantsintwo RCTs:RCT1:102womenaged18 to35 years.RCT 2:248 menandwomenaged18 to75years.	Alena application during the intervention period.	CBT program modules for social anxiety that can be accessed through the Alena application. This program consists of 5 modules: Introduction Module Trust Module Focus Module Defense Module	Safety: The frequency and severity of adverse events did not differ significantly between the intervention and control groups in either RCT. The Alena app was considered safe.

	Life Recovery Module	- Acceptability:
		The acceptability of the Alena app was very good, with an average completion rate of 90.91% in RCT 1 and 84.85% in RCT 2. Respondents gave high marks for satisfaction, usefulness, ease of use, and likelihood to recommend the app.
		Efficacy:
		In both RCTs, the intervention group experienced a significantly greater reduction in SPIN scores (an indicator of social anxiety symptoms)
		compared to the control group. The effectiveness of the Alena app in reducing social
		anxiety symptoms was significant, and

						this effect persisted even after the intervention period had ended. The Alena app also showed positive, albeit variable, effects on reducing functional impairment associated with social anxiety.
16	Lizu Lai, et al 2025	Efficacy of a process-based, Mobile-delivered personalized CBT for anxiety disorders: Study protocol for a randomized controlled trial	Two-stage clinical trial: Stage 1: 30- day Ecological Momentary Assessment (EMA) Stage 2: Randomized controlled trial with three groups:	182 individuals diagnosed with Generalized Anxiety Disorder (GAD), Panic Disorder (PD), or Social Anxiety Disorder (SAD) qualifying in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5).	Process-based digital CBT modular interventions through applications tailored to the individual needs of participants. Standard CBT therapy: all recommended CBT modules. Personalized CBT therapy: CBT modules tailored to individual needs determined through GIMME analysis.	Stage 1: EMA: EMA data were utilized to identify key functional elements that predicted anxiety levels in each participant using GIMME analysis. Stage 2: Controlled trial: Conducting data analysis with a linear mixed model to evaluate the effectiveness of the CBT intervention. The study is expected to identify the advantages of

	Standard CBT		personalized	CBT
	group		therapy in tre	
			anxiety problem	ns.
	Personalized			
	CBT group			
	Waitlist group			

al 2024 cognitive behavioural therapy (CBT)- based intervention for reducing anxiety among adolescents in the Colombo District, Sri Lanka: cluster randomized controlled trial SI Si Si Cools. Si Si Lanka: cluster randomized controlled trial SI Si Si Cools Si Si Cools Si Si Si Cools Si	17	Sinha De Silva, et	Effectiveness of a	RCT	720 grade 9	The control	A universal CBT-based	The CBT intervention
therapy (CBT)- based intervention for reducing anxiety among addlescents in the Colombo District, Sri Lanka: cluster randomized controlled trial		al 2024	cognitive		students (aged	group received	intervention program	successfully reduced
schools. group received intervention for reducing anxiety among adolescents in the Colombo District, Sri Lanka: cluster randomized controlled trial schools. group received CBT intervention. This intervention package emotions and feelings, and understanding anxiety. The Art of Mind Control: Learning methods to avoid negative thoughts and manage thoughts and emotions. Relaxation: Mastering and practicing relaxation methods. Problem Solving Skills: The process of learning and practicing relaxation methods. Problem Solving Skills: The process of learning and practicing relaxation methods. Problem Solving Skills: The process of learning and practicing relaxation methods. Problem Solving Skills: The process of parents to provide education about anxiety and how to support children in			behavioural		13-15 years)	routine care,	implemented by trained	the level of anxiety in
CBT intervention. reducing anxiety among adolescents in the Colombo District, Sri Lanka: cluster randomized controlled trial CBT intervention. Sri Lanka: cluster randomized controlled trial CBT intervention. CBT intervention. This intervention package includes: Psychological education: Understanding and recognizing emotions and feelings, and understanding anxiety. The Art of Mind Control: Learning methods. to avoid negative thoughts and manage thoughts and emotions. Relaxation: Mastering and procticing relaxation: Mastering and procticing skills: The process of learning and difficulties. Self-Confidence Building: Increasing self- confidence through repetition of skills that have been mastered. There are also additional sessions for parents to provide education about anxiety and how to support children in			therapy (CBT)-		from 36	while the study	teachers for 8 weeks, with	adolescents,
reducing anxiety among adolescents in the Colombo District, Sri Lanka: cluster randomized controlled trial			based		schools.	group received	weekly sessions lasting 40	especially during the
This intervention package adolescents in the Colombo District, Sri Lanka: cluster randomized controlled trial			intervention for			CBT intervention.	minutes.	3-month follow-up
adolescents in the Colombo District, Sri Lanka: cluster randomized controlled trial			reducing anxiety					period after the
adolescents in the Colombo District, Sri Lanka: cluster randomized controlled trial			among				This intervention nackage	intervention. The
Sri Lanka: cluster studied group was randomized Psychological education: significantly lower, controlled trial Psychological education: Understanding and recognizing was also proven to be able to increase understanding anxiety. The Art of Mind Control: Learning methods to avoid negative thoughts and randomized manage thoughts and emotions. Relaxation: Mastering and practicing relaxation methods. Problem Solving Skills: The process of learning and practicing skills to overcome difficulties. difficulties. Self-Confidence Building: Increasing self- confidence confidence through repetition of skills that have been mastered. There are also additional sessions for parents to provide education about anxiety and how to support children in bow to support children in bow to support children in			adolescents in the					level of anxiety in the
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Mind Control: Learning methods to avoid negative thoughts and manage thoughts and emotions. Relaxation: Mastering and practicing relaxation methods. Problem Solving Skills: The process of learning and practicing skills to overcome difficulties. Self-Confidence Building: Increasing self- confidence through repetition of skills that have been mastered. There are also additional sessions for parents to provide education about anxiety and how to support children in								be able to increase
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Relaxation: Mastering and practicing relaxation methods. Problem Solving Skills: The process of learning and practicing skills to overcome difficulties. Self-Confidence Building: Increasing self- confidence through repetition of skills that have been mastered. There are also additional sessions for parents to provide education about anxiety and how to support children in								
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MEDIC NUTRICIA

Jurnal Ilmu Kesehatan

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18	Nadia Farahmita, Pramesti Pradna Paramita 2024	Effectiveness of Cognitive Behavior Therapy	Single case experimental design	Graduate student completing	Cognitive Behavioral Therapy (CBT) involves the steps of: establishing an effective	indicated that
		(CBT) for		thesis 26 years	therapeutic relationship,	participants showed
		Lowering		old	planning interventions and	a decrease in academic-related
		Academic Anxiety in Graduate			structuring sessions, identifying and mapping Negative	
		Students			Automatic Thoughts (NAT's),	able to analyze
		Completing Thesis			identifying Dysfunctional	automatic negative
					Assumptions (DA's), assessing	thought patterns and
					Negative Automatic Thoughts	ineffective beliefs,
					(NAT's), assessing Dysfunctional	and explore the
					Assumptions (DA's), discovering	
					core beliefs, changing core	themselves. Thus, it can be concluded
					beliefs, supporting transformation of thinking and	that Cognitive
					behavior between sessions	
					through homework assignments,	(CBT) is proven to be
					collecting feedback, and	able to reduce
					completing therapy.	academic anxiety
						levels among
						university
						students.Anxiety
						level (Child SCARED Score):
						500127.
						Post-action:
						p = 0.115 (not significant)

			Follow-up (3 months): p = 0.038 (significant)
			Depression status (DASS-21 depression scale):
			After intervention: p = 0.098 (not significant)
			Follow-up (3 months): p = 0.052 (not significant, almost reached)
			Self-esteem level (measured by Rosenberg self- esteem scale):
			Post intervention: p = 0.001 (significant)
			Follow-up (3 months): p = 0.231 (not significant)

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Jurnal Ilmu Kesehatan

19	Esty Aryani	EFEKTIFITAS	Single case			Cognitive behavioral
	Safithry 2022	COGNITIVE	experimental	5 high school	Cognitive behavioral therapy	therapy (CBT) proved
	•	BEHAVIOR	design	students who	(CBT) which includes:	to be effective this
		THERAPHY	C	feel anxiety		can be seen from the
		UNTUK		when facing	Relaxation Method	initial anxiety score
		MENURUNKAN		exams,		(first phase A)
		TINGKAT		especially in	Cognitive Restructuring The	ranging from 80 to 90
		KECEMASAN		math subjects	intervention was carried out in 7	for all five students.
		MENGHADAPI			sessions, including 1	After CBT
		UJIAN PADA			introductory session and 5	intervention (phase
		SISWA			sessions in the main stage, and 1	B) which included
					session in the closing stage.	relaxation and
						cognitive
						reconstruction
						techniques for six
						sessions, anxiety
						scores decreased in
						all students. In the
						final measurement
						(second A phase),
						after the CBT
						intervention was
						completed, anxiety
						scores showed a further decrease in
						all students, with
						final scores ranging
						from 45 to 55.
						110111 4 5 to 55.

20	nisa Juniarti, Ahmad Saleh, M. Ilham Akbar, Kerin Ari Chaniago, Vivid Indri Yulistia 2023	MENGURANGI KECEMASAN MENGHADAPI DUNIA KERJA DENGAN COGNITIVE BEHAVIOR THERAPY BERBASIS ISLAMI PADA MAHASISWA FRESH GRADUATE	Studi kasus (qualitative)	A fresh graduate student who experiences anxiety in facing the world of work, 23 years old	Cognitive Behavior (CBT) berbasis Islam	Therapy	Cognitive behavior therapy (CBT) consisting of Research shows that the Islamic-based CBT approach applied to respondents through this study is successful in reducing the level of anxiety felt, so that after attending therapy, the subject is able to manage his way of thinking and acting better in thinking and easily adjusting. The journal you submitted does not include inferential statistical analysis
							journal you submitted does not
							This study uses qualitative methods
							through a case study approach that emphasizes a
							emphasizes a thorough understanding of
							personal

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DISCUSSION

Based on the findings of this study, it was found that the use of Cognitive Behavior Therapy (CBT) showed effective results in reducing anxiety disorders. Cognitive Behavior Therapy uses thought-ending techniques aimed at reducing or preventing thoughts that lead to potentially dangerous behaviors. Thought-Stopping techniques convey a sense of control when breaking through students' negative thinking habits by following positive statements and increasing safety. It also discusses cognitive behavioral assessments in Bantis, Individual and group therapy can be effectively communicated with supply-based anxiety and depression treatment. Assertive training methods are another option for reducing anxiety. This is supported by the results of Risma, which states that assertive methods can help students avoid interpersonal communication.

The application of CBT to the subject affects the condition of personal characteristics, especially internal and external factors. Internal factors, namely motivation and self-esteem in this subject. Self-esteem includes evaluations that create, strengthen, fulfill potential strengths, and accept existing deficiencies. I don't like, complain, and complain about low self-esteem, but I don't appreciate the benefits and think it's a little less. Environmental and emotional factors that also affect the development of client anxiety.

Motivation is very important to change a person's behavior. His attitude during the meeting shows his maturity. The complexity of this problem is limited to public communication, not friends. Individual intervention is easy and fast to do by the instructor. The decrease in subject anxiety is also supported by personality, self-acceptance, understanding, openness to input, discipline to instill skills and use the results of training.

The main factor responsible for the development of client anxiety is a dangerous childhood experience. The client has an uncomfortable relationship in his family. This is also a trigger because of fear of customers. Parent-child relationships that emphasize harsh control, namely, parents of parents who give physical or verbal punishment to their children to damage their child's self-related abilities, psychological control patterns (psychological control) are parental patterns. Parents manipulate their children's emotions and thoughts through efforts of guilt, humiliation, emotional terror, and overprotection.

In the cognitive domain before the application of therapy with the CBT approach, the subject always thought negatively, was unable to control his anxiety and worry about the job he had not received. However, after therapy the subject was able to process and change negative thoughts into positive ones and was able to reduce the anxiety and worry experienced over time.

In journal number 5 of the research "Internet-based Cognitive Behavior Therapy to Reduce Social Anxiety in Early Adulthood" by Immanuela Indraningtyas Wulandari, the intervention carried out failed to show a statistically significant decrease in the level of social anxiety. Although qualitatively the participants reported changes and the average score showed a downward trend, quantitative analysis using the Friedman Test concluded that there was no significant difference in the level of social anxiety before, after, and during follow-up. The results contradict the findings of several previous studies that found the effectiveness of ICBT in dealing with social anxiety.

ISSN : 3025-8855

There were several barriers that affected the results in terms of the technology and design of the intervention. One participant said that when she read the materials, she felt bored and wanted an interesting audio format which suggests that individual preferences for treatment formats can affect participation and outcomes. In addition, there were technical issues with the navigation buttons on the therapy website. This could affect participants' motivation and satisfaction when complying with the program. The short intervention with statistical content was not sufficient compared to more comprehensive and interactive programs for treating anxiety disorders.

Challenges arose in terms of therapy and client factors. Therapists acknowledged the difficulty of establishing a strong therapeutic relationship only with written communication in emails that do not contain nonverbal information such as tone or body language. The quality of this relationship is one of the most important factors for the effectiveness of treatment. On the other hand, the success of the intervention also depends heavily on the motivation and discipline inherent in the client. This is difficult for this type of therapist. This is reflected in the perception of one participant who believed that this method did not suit her because she preferred face-to-face communication.

Overall, we can conclude that the non-significant results of this study are due to a combination of different factors. Methodological weaknesses, such as the minimum sample size related to technical challenges and limited evaluation processes, and the intervention format with fewer interactive interventions, were the main obstacles. Furthermore, the difficulty in building a strong therapeutic alliance via email as well as the level of motivation and the appropriateness of the method for each client also played an important role. These factors explain why the CBT intervention in this study was able to show statistical effectiveness despite some qualitative improvements.

CONCLUSION

Cognitive Behavior Therapy is significantly successful in reducing anxiety levels in a variety of groups of people. According to a systematic review, CBT helps people identify, understand, and modify negative behaviors that contribute to their thought patterns and fears. This method is designed to focus on current problems and is evidence-based, so it can be applied both individually and in groups. The success of CBT is also influenced by the regularity of implementation, active patient involvement, and support from skilled professionals. Therefore, CBT can be considered one of the main approaches in treating anxiety disorders.

ADVICE

This study revealed that the sample size used in some studies was very limited. It is recommended to increase the number of student participants in future studies so that the results obtained are more reflective of the actual situation. For example, a study involving more than 100 students could produce stronger data that is relevant to a wider population.

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