Salud, Ciencia y Tecnología. 2026; 6:2528
doi: 10.56294/saludcyt20262528

ORIGINAL

Rational Emotive Behavior Counseling as an Intervention to Strengthen Grit, Growth Mindset, and Academic Resilience in Higher Education

Terapia racional emotiva conductual como intervención para fortalecer la determinación, la mentalidad de crecimiento y la resiliencia académica en la educación superior

Galuh Adji Pratama[1], Mazidah Mohd Dagang[1] ✉, Gian Sugiana Sugara[2]

[1]Universiti Malaysia Terengganu, Departmen of Counselling. Kuala Terengganu, Malaysia.
[2]Department of Guidance and Counseling, Universitas Muhammadiyah Tasikmalaya. Indonesia.

Cite as: Pratama GA, Dagang MM, Sugara GS. Rational Emotive Behavior Counseling as an Intervention to Strengthen Grit, Growth Mindset, and Academic Resilience in Higher Education. Salud, Ciencia y Tecnología. 2026; 6:2528. https://doi.org/10.56294/saludcyt20262528

Submitted: 20-08-2025 **Revised:** 17-10-2025 **Accepted:** 10-12-2025 **Published:** 01-01-2026

Editor: Prof. Dr. William Castillo-González

Corresponding author: Mazidah Mohd Dagang ✉

ABSTRACT

University students frequently encounter substantial academic pressures that may lead to stress, mental fatigue, and procrastination—conditions that negatively affect both academic achievement and psychological well-being. Psychological capacities such as grit, growth mindset, and academic resilience are essential in helping students navigate these challenges; however, structured interventions designed to strengthen these traits remain limited, particularly within the Indonesian higher education context. Therefore, this pilot study sought to evaluate the effectiveness of a structured group counseling intervention aimed at enhancing grit, growth mindset, and academic resilience among first-year university students. Twelve students identified with low baseline levels of these traits participated in six counseling sessions emphasizing cognitive restructuring, emotional regulation, and behavioral development. A time-series design was utilized to monitor changes at multiple points before, during, and after the intervention. The results indicated consistent improvement across all measured variables, with participants demonstrating increased perseverance, stronger beliefs in personal growth, and enhanced resilience in responding to academic challenges. These outcomes suggest that structured cognitive-behavioral counseling holds promise as an effective approach for strengthening essential psychological traits that support student adaptation and academic success. Nevertheless, further investigations employing randomized controlled trials with larger samples and follow-up evaluations are recommended to confirm and extend these preliminary findings.

Keywords: Rational Emotive Behavior Counseling; Grit; Growth Mindset; Academic Resilience; University Student.

ABSTRACT

Los estudiantes universitarios suelen enfrentarse a presiones académicas significativas que pueden generar estrés, fatiga mental y procrastinación, condiciones que afectan negativamente tanto el rendimiento académico como el bienestar psicológico. Capacidades psicológicas como la perseverancia (*grit*), la mentalidad de crecimiento y la resiliencia académica son esenciales para ayudar a los estudiantes a afrontar estos desafíos; sin embargo, las intervenciones estructuradas diseñadas para fortalecer estos rasgos siguen siendo limitadas, particularmente en el contexto de la educación superior en Indonesia. Por lo tanto, este estudio piloto tuvo como objetivo evaluar la eficacia de una intervención de consejería grupal estructurada destinada a mejorar la perseverancia, la mentalidad de crecimiento y la resiliencia académica en estudiantes universitarios de primer año. Doce estudiantes identificados con niveles iniciales bajos de estos rasgos

participaron en seis sesiones de consejería que enfatizaron la reestructuración cognitiva, la regulación emocional y el desarrollo conductual. Se empleó un diseño de series temporales para monitorear los cambios en múltiples momentos antes, durante y después de la intervención. Los resultados indicaron una mejora constante en todas las variables medidas, con participantes que demostraron mayor perseverancia, creencias más sólidas en el crecimiento personal y una resiliencia fortalecida frente a los desafíos académicos. Estos hallazgos sugieren que la consejería estructurada basada en principios cognitivo-conductuales puede ser una estrategia eficaz para fortalecer rasgos psicológicos esenciales que apoyan la adaptación y el éxito académico de los estudiantes. No obstante, se recomiendan investigaciones adicionales que empleen ensayos controlados aleatorizados con muestras más amplias y evaluaciones de seguimiento para confirmar y ampliar estos resultados preliminares.

Palabras clave: Consejería de Conducta Emotiva Racional; Perseverancia; Mentalidad de Crecimiento; Resiliencia Académica; Estudiantes Universitarios.

INTRODUCTION

The transition from secondary education to higher education represents a critical developmental phase, often accompanied by significant academic and social adjustment demands. For many students, this transitional period triggers increased stress, academic fatigue, and the emergence of maladaptive behaviors such as procrastination.[1] Inadequate adaptation may lead to a decline in academic performance, psychological distress, and higher dropout rates [2]. Empirical studies have shown that students experiencing high levels of academic stress tend to exhibit lower psychological flexibility and limited emotion regulation, which in turn negatively affects learning processes and mental health.[3]

Among the various psychological factors contributing to academic success, grit, growth mindset, and academic resilience have emerged as key constructs. Grit refers to perseverance and sustained passion for achieving long-term goals despite adversity.[4] Growth mindset, a concept introduced by Dweck,[5] reflects the belief that intelligence and abilities can be developed through effort and learning. Academic resilience, on the other hand, denotes an individual's capacity to recover from failure, persist through challenges, and sustain motivation in the face of academic difficulties.[6]

These three constructs are interrelated. Grit is associated with reduced academic procrastination and enhanced achievement motivation.[7] Growth mindset has been shown to foster self-regulated learning, increase perseverance, and reduce fear of failure.[8] Likewise, students with higher levels of academic resilience tend to demonstrate more effective coping strategies, better emotion regulation, and stronger academic engagement.[9]

Rational Emotive Behavior Counseling (REBC), rooted in the cognitive-behavioral framework developed by Ellis,[10] provides a structured approach to strengthening these psychological constructs. REBC posits that irrational beliefs — rather than events themselves are the primary source of emotional disturbances and maladaptive behaviors. Through cognitive restructuring techniques and rational-emotional approaches, REBC aims to transform irrational thought patterns into rational and adaptive ones, thereby enhancing emotional well-being and behavioral outcomes.[11]

Previous studies have demonstrated the effectiveness of REBC in enhancing resilience, reducing academic anxiety, and fostering constructive mindsets among students.[12] However, research remains limited in examining the integrated impact of REBC on grit, growth mindset, and academic resilience simultaneously particularly among first-year students in the Indonesian higher education context.

Therefore, this study aims to examine the effectiveness of Rational Emotive Behavior Counseling in enhancing grit, fostering a growth mindset, and strengthening academic resilience among university students. By addressing the cognitive, emotional, and behavioral dimensions of psychological functioning, this research seeks to contribute to the development of holistic, evidence-based interventions within higher education settings.

METHOD

Participants

This study employed a single-group time-series design conducted over a specified intervention period in Tasikmalaya, Indonesia. The participants consisted of 12 first-year undergraduate students recruited from various universities across the region. Participants were selected through purposive sampling based on predetermined inclusion criteria: (a) active enrollment in a university, (b) low levels of grit, (c) low academic resilience, (d) evidence of a fixed mindset, and (e) voluntary willingness to engage in a structured counseling intervention. These criteria ensured that the sample represented individuals most in need of psychological strengthening, aligning with the aims of the intervention. The time-series design allowed for systematic monitoring of changes

in psychological attributes across multiple assessment points before, during, and after the counseling sessions, providing a comprehensive overview of the intervention's impact. The total duration of this study was one year and one month, spanning from August 2024 to September 2025.

Measure

Student Grit Scale

Grit was measured using the Student Grit Scale,[13] based on the conceptual framework by Duckworth theory[]. This instrument consists of 16 items that assess three dimensions of grit: (1) perseverance, reflecting sustained effort over time; (2) persistence, representing the determination to complete tasks; and (3) adversity, indicating the capacity to withstand setbacks. The scale uses a 5-point Likert response format. Internal consistency reliability was confirmed with a Cronbach's alpha of 0,63 indicating acceptable reliability for research purposes.

Dweck Mindset Inventory

To measure participants' mindsets, the study utilized the Dweck Mindset Instrument adapted in Indonesia[14] from Dweck.[5] The scale includes 16 items that capture beliefs related to intelligence and talent, distinguishing between growth and fixed mindsets. Responses are recorded on a 6 - point Likert scale, with higher scores reflecting a stronger endorsement of a growth mindset. The instrument demonstrated satisfactory reliability with a Cronbach's alpha coefficient of 0,64.

Academic Resilience Scale (ARS-30)

Academic resilience was assessed using the ARS-30, developed by Cassidy [6] and adapted in Indonesia.[15] This 30-item instrument evaluates three components: (1) academic perseverance, (2) self-reflection and adaptive help-seeking, and (3) emotional responses to academic challenges. Each item is rated on a 5-point Likert scale. Internal consistency was found to be high, with a Cronbach's alpha of 0,90 indicating strong reliability for assessing resilience in academic settings.

Rational Emotive Behavior Counseling

The Rational Emotive Behavior Counseling (REBC) procedure in this study was structured to integrate cognitive, emotive, and behavioral strategies that contribute to students' psychological development. The model was rooted in Ellis's A–B–C framework, which posits those emotional consequences stem from beliefs about activating events, not the events themselves.[16] This cognitive behavioral approach encourages the identification and replacement of irrational beliefs with more rational, adaptive thoughts.

Cognitive techniques were used to help participants recognize distorted thinking and challenge irrational assumptions about academic demands and personal competence. This step aimed to promote rational evaluation and develop new perspectives on failure and success.[17] Participants engaged in exercises such as belief examination and logical disputation to reframe their core thinking patterns.

Emotive strategies were applied to reshape emotional reactions toward academic setbacks. Using Rational Emotive Imagery (REI), students practiced replacing unhealthy emotional responses with constructive ones by visualizing stressful academic situations and rehearsing adaptive responses.[18] These techniques helped reduce anxiety, build frustration tolerance, and encourage self-compassion in the face of failure.

Behavioral techniques were incorporated to reinforce new cognitive and emotional habits. Students were encouraged to apply self - monitoring and goal-setting as tools to increase persistence and commitment toward long-term academic objectives. By connecting daily effort with future goals, participants were able to enhance grit and academic resilience in practical, observable ways.[12]

Throughout the intervention, participants also developed systems of self-reinforcement, including personalized rewards and consequences, to maintain behavioral consistency. These methods aimed to promote internal accountability and ensure that learned skills could be transferred into daily academic life.[19]

The schedule and sequence of contents for the rational emotive behavior therapy intervention session carried out for six weeks are presented in table 1.

Data Analysis

This study employed a time - series design using an AB approach, in which Phase A (pretest) represented the baseline condition and Phase B (posttest) reflected the condition following the intervention. The effectiveness of the intervention was evaluated using repeated measures analysis, which enables the examination of change over time within participants.[20]

Data were analyzed using JASP version 19.0. A Paired-Samples t - test was conducted to compare pre - and post - intervention scores on grit, growth mindset, and academic resilience. In addition to inferential statistics, visual trend analysis was carried out using line graphs to examine directional changes throughout the intervention.[21]

To further assess intervention effectiveness, the Percentage of Non-Overlapping Data (PND) method was

applied. This method compares the highest baseline score with post-intervention data to evaluate the extent of non-overlapping improvement.[22] A PND value above 90 % indicates high effectiveness, 70 – 90 % reflects moderate effectiveness, 50 – 69 % is considered questionable, and below 50 % suggests the intervention is ineffective.[23]

Table 1. Schedule of rational emotive behavior counseling activities

Aspect	Session	Purpose	Activity
Cognitive	1	Help the client understand that their problems stem from irrational thoughts that trigger unhealthy emotions and negative behaviors.	1. Building a warm relationship with the client. 2. Explore the client's issues regarding grit, mindset, and academic resilience. 3. Analyze and diagnose the beliefs, emotions and behaviors that arise from the client 4. Teach ABC working concepts with the assistance of provided tools and materials 5. Assigning homework tasks to the counselee 6. Fill the grit scale, dweck mindset inventory, mindset , academic resilience scale
	2	Help clients to change irrational beliefs into more rational ones	1. Evaluate the changes that the client experiences after the first session 2. Provide an understanding of the existence of irrational beliefs that clients have that influence their emotions and behavior 3. Discover the client's irrational beliefs 4. Helps change the client's irrational beliefs 5. Perform tape recording 6. Analyze the client's feelings and behavior towards new beliefs 7. Give homework assignments 8. Fill the grit scale, dweck mindset inventory, mindset, academic resilience scale
	3	Helping clients to develop new emotional patterns, assuming that difficulties are not a terrible thing	1. Evaluate the changes the client experiences after the second session 2. Carrying out rational emotive imagery techniques 3. Analyze the obstacles experienced by the counselor 4. help clients find ways to deal with obstacles they experience 5. Give homework assignments 6. Fill the grit scale, dweck mindset inventory, mindset, academic resilience scale
Emotion			
	4	Helping clients to foster feelings of happiness in clients so they are able to overcome challenges to achieve their desired goals	1. Evaluate the changes the client experiences after the third session 2. Use the time projection technique by imagining the client's success in dealing with public speaking anxiety 3. Helps the counselee to have an understanding that the difficulties and problems experienced by the counselee can be overcome 4. Counselees have the ability to refute their irrational beliefs 5. Give homework assignments. 6. Fill the grit scale, dweck mindset inventory, mindset, academic resilience scale
Behavior	5	Helping clients to be able to grow and develop new patterns of behavior so that clients can implement them in real terms	1. Evaluate the changes that the client experiences after the fourth session 2. Assist clients in developing new behavior patterns 3. Analyze behavior or habits that can help clients have new behavior 4. Make a design commitments to new behaviours 5. Give homework assignments 6. Fill the grit scale, dweck mindset inventory, minds, academic resilience scale
	6	Guide the counselee in evaluating past sessions to assess progress and strengthen their commitment to ongoing change. .	1. Evaluate the changes that the client experiences after the fourth session 2. The counselor helps the counselee to commit to the counselee to make changes 3. Record the client's commitment in the form of punishment and rewards that will be given 4. Give homework assignments 5. Fill the grit scale, dweck mindset inventory, mindset, academic resilience scale

This design supports both short-term and long-term effect evaluation while enabling causal inferences regarding intervention outcomes.[24] Additional statistical analyses in JASP included effect size estimation

(Cohen's d) and the computation of the Reliable Change Index (RCI). An RCI score greater than 1,96 was interpreted as indicating a clinically significant improvement.[9]

Ethical Considerations

The research project received ethical approval from the Universiti Malaysia Terengganu Research Ethics Committee (UMT REC) under the approval number UMT/JKEPM/2024/268. All procedures involving human participants were conducted in accordance with the ethical standards established by the institutional and national research committees, specifically the UMT Research Ethics Committee (Approval No. UMT/JKEPM/2024/268). The study also adhered to the principles of the 1964 Helsinki Declaration and its later amendments or other comparable ethical guidelines.

RESULTS

The results of this study demonstrate that group counseling based on the Rational Emotive Behavior Counseling (REBC) approach significantly improved students' grit, growth mindset, and academic resilience. Analysis of pre- and post-intervention scores revealed consistent increases across all variables, supported by large effect sizes and clinically meaningful changes.

In figure 1, the mean grit score increased from 53,22 (SD = 1,86) at pretest to 55,72 (SD = 0,42) post-intervention. This gain was accompanied by a large effect size (Cohen's d = 1,48) and a Reliable Change Index (RCI) of 2,03, indicating both statistically and clinically significant improvement. Improvements were also observed across all subcomponents of grit. Perseverance increased from M = 2,82 to M = 28,47 (d = 2,76; RCI = 5,43), persistence rose from M = 13,26 to M = 16,65 (d = 2,96; RCI = 9,13), and adversity improved from M = 13,41 to M = 14,59 (d = 0,92; RCI = 2,52). These results align definition of grit, which highlights sustained effort and goal commitment despite obstacles.[18]

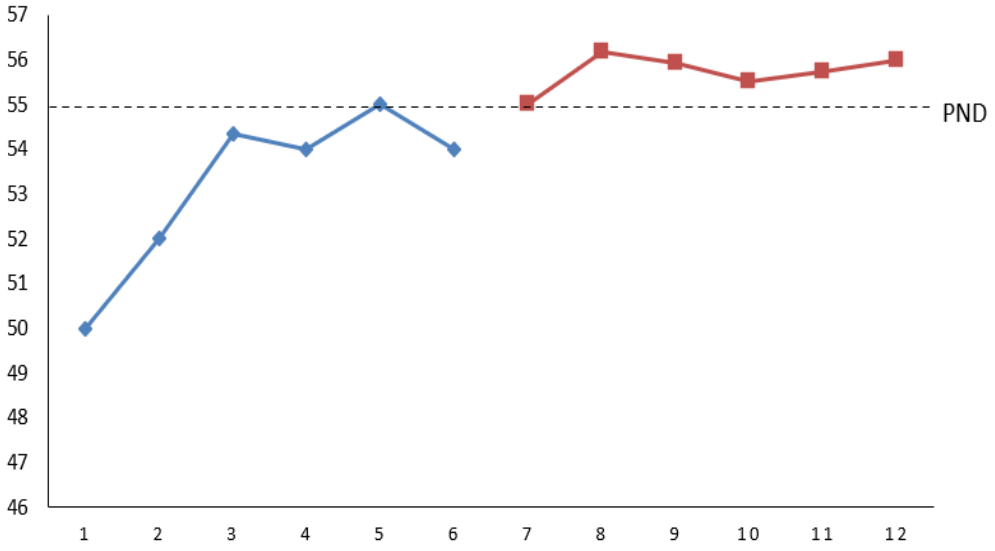

Figure 1. The Change in College Students' Grit Scores Before and After the REBC Intervention

In figure 2, the mindset variable score, a significant increase was also recorded. The total mindset score rose from M = 57,79 (SD = 4,02) to M = 64,36 (SD = 6,20), with a very large effect size (d = 4,83) and an RCI of 5,25. Specifically, the growth mindset subscale improved from M = 28,76 to M = 33,94 (d = 2,10; RCI = 4,56), indicating greater student openness to learning through effort and experience. Concurrently, a reduction in fixed mindset beliefs was observed, reflecting decreased agreement with the idea that abilities are static. These findings are consistent with Dweck's theory[4], which emphasizes the malleability of intelligence and supports the use of REBC to challenge and restructure irrational, limiting beliefs.[22]

In figure 3 terms of academic resilience, the total score increased from M = 90,01 (SD = 12,02) to M = 116,00 (SD = 2,57), yielding a very large effect size (d = 4,83) and an RCI of 3,82. Improvements were noted across key subdimensions. Academic perseverance improved from M = 41,86 to M = 54,30 (d = 1,81; RCI = 10,94); self-reflection and adaptive help-seeking rose from M = 26,87 to M = 34,91 (d = 1,43; RCI = 5,40); and regulation of negative emotions increased from M = 21,27 to M = 26,45 (d = 1,04; RCI = 5,12). These gains suggest that students developed stronger coping mechanisms, adaptability, and emotional regulation when facing academic stress. This aligns with the view that academic resilience serves as a key factor in overcoming failure and

maintaining motivation,[25] and with Cassidy[26], who emphasized the importance of self-reflection and help-seeking in the development of resilience.

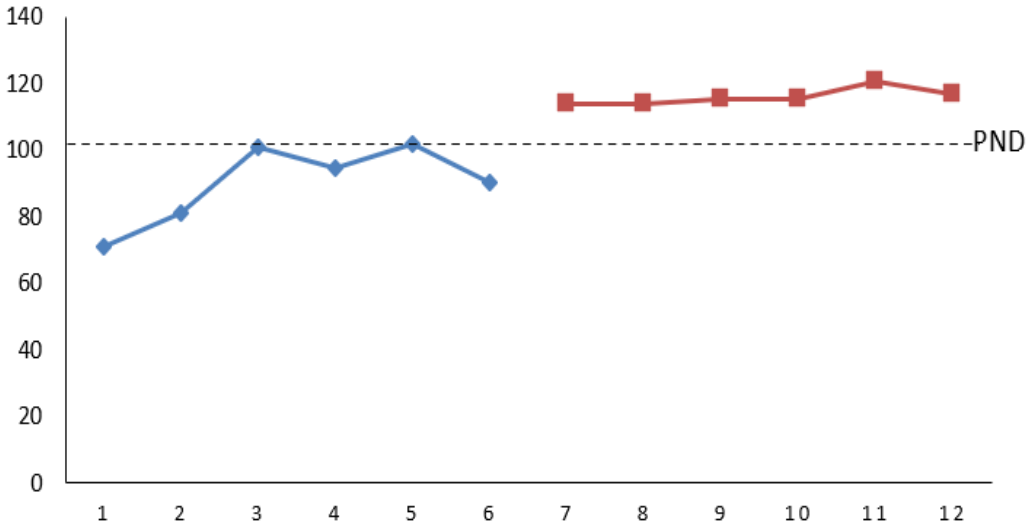

Figure 2. The Change in College Students' Growth Mindset Scores Before and After the REBC Intervention

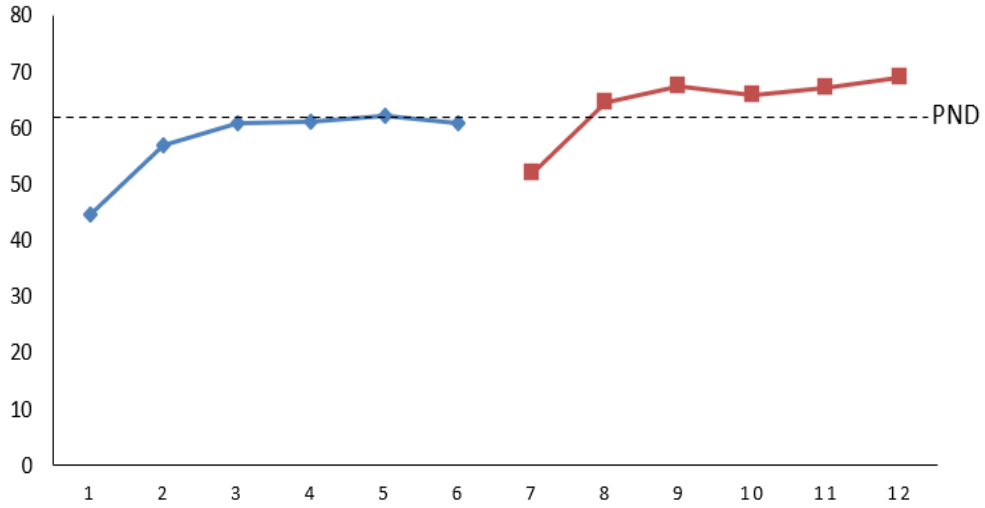

Figure 3. TheChange in College Students Academic Resilience Before and After the REBC Intervention

The paired-samples t - test confirmed that all observed changes following the REBC intervention were statistically significant ($p < 0,05$) and demonstrated large effect sizes. Analysis of clinical significance further indicated that all participants exhibited meaningful improvements in grit, as evidenced by Reliable Change Index (RCI) values exceeding the threshold of 1,96. Additionally, nine out of twelve participants achieved clinically significant gains in both growth mindset and academic resilience. These findings provide robust evidence of REBC's effectiveness, both statistically and clinically, in enhancing perseverance, adaptive belief systems, and academic coping mechanisms.[12]

Table 2 presents the mean score improvements across all measured variables. Total grit scores increased from M = 53,22 (SD = 1,86) to M = 55,72 (SD = 0,42), yielding a 2,50 - point gain (t = 3,63, p = 0,015; d = 1,48; RCI = 2,03). Subscale analyses further supported this trend: perseverance improved by 6,65 points (M = 22,82 to 28,47; t = 9,57, p = 0,001; d = 2,76; RCI = 5,43), persistence rose by 3,39 points (M = 13,26 to 16,65; t = 10,27, p = 0,001; d = 2,96; RCI = 9,13), and adversity increased by 1,18 points (M = 13,41 to 14,59; t = 3,19, p = 0,009; d = 0,92; RCI = 2,52). These improvements align with the understanding of grit as sustained effort and goal-oriented persistence in the face of obstacles.[18]

In the domain of mindset, total scores rose from M = 57,79 (SD = 4,02) to M = 64,36 (SD = 6,20), reflecting a 6,57 - point increase (t = 11,85, p = 0,001; d = 4,83; RCI = 5,25). Notably, growth mindset scores improved

by 5,18 points (M = 28,76 to 33,94; t = 7,29, p = 0,001; d = 2,10; RCI = 4,56), while fixed mindset beliefs significantly declined (mean decrease = 7,54 points; t = 8,56, p = 0,001; d = 2,47; RCI = 4,08), indicating a shift toward more adaptive cognitive frameworks. These results align with the theory that beliefs about the malleability of intelligence can be strengthened through targeted psychological interventions.[18] The cognitive restructuring goal of REBC, which aims to challenge and replace irrational beliefs with rational alternatives, also supports these outcomes.[27]

Academic resilience also showed substantial gains. The total score increased from M = 90,01 (SD = 12,02) to M = 116,00 (SD = 2,57), representing a 25,99-point improvement (t = 6,15, p = 0,002; d = 4,83; RCI = 3,82). At the subdomain level, academic perseverance rose by 12,44 points (M = 41,86 to 54,30; t = 6,27, p = 0,001; d = 1,81; RCI = 10,94), while self - reflection and adaptive help-seeking improved by 8,04 points (M = 26,87 to 34,91; t = 4,95, p = 0,001; d = 1,43; RCI = 5,40). Regulation of negative emotions also increased by 5,18 points (M = 21,27 to 26,45; t = 3,62, p = 0,004; d = 1,04; RCI = 5,12), indicating reduced academic distress as a result of improved emotional regulation — reinforced by reverse scoring.

In conclusion, the REBC intervention was found to be highly effective in enhancing students' grit particularly perseverance and persistence fostering a growth - oriented mindset, reducing maladaptive fixed beliefs, and strengthening academic resilience. All measured improvements met or exceeded criteria for both statistical and clinical significance (RCI > 1,96), thereby confirming the practical and therapeutic relevance of REBC in educational counseling settings.

Table 2. Comparison Before and After of Rational Emotive Behavior Counseling to Increase Grit, Growth Mindset and Academic Resilience in College Students

Scale	Pre-REBC		Post-REBC		Gain	t	p	d	RCI
	M	SD	M	SD					
Total Grit	53,22	1,86	55,72	0,42	2,50	3,63	0,015	1,48	2,03
Perseverance	22,82	1,57	28,47	1,06	5,65	9,57	0,001	2,76	5,43
Persistense	13,26	0,56	16,65	1,01	3,39	10,3	0,001	2,96	9,13
Adversity	13,41	1,00	14,59	0,60	1,18	3,19	0,009	0,92	2,52
Total Mindset	57,79	4,02	64,36	6,20	6,57	11,8	0,001	4,83	5,25
Growth Mindset	28,76	1,42	33,94	1,90	5,18	3,02	0,012	0,87	4,56
Fix Mindset	26,76	2,31	34,30	1,93	7,54	0,55	0,594	0,16	4,08
Academic Resilience	90,01	12,02	116,00	2,57	25,99	6,15	0,002	4,83	3,82
Academic Perseverance	41,86	2,01	54,30	6,43	12,44	6,27	0,001	1,81	10,9
Self-reflection and seeking help adaptively	26,87	2,63	34,91	4,59	8,04	4,95	0,001	1,43	5,40
Negative effects and emotional responses	21,27	1,79	26,45	4,40	5,18	3,62	0,004	1,04	5,12

Based on the reliability analysis in table 3, most participants showed significant improvements in grit, mindset, and academic resilience after the intervention. All participants improved in grit, with RCI values above 1,96. For mindset, nine participants improved, while three (Participants 5, 8, and 9) showed no significant change. Similarly, in academic resilience, nine improved, and three (Participants 3, 8, and 9) did not. These results confirm that the intervention was effective for the majority of participants across all three variables.

Table 3. Participants Change for Grit, Mindset, and Academic Resilience After REBC Intervention

Name	Grit					Mindset					Resiliensi Akademik				
	Pre	Post	Change	RCI	CS	Pre	Post	Change	RCI	CS	Pre	Post	Change	RCI	CS
P1	44,50	60,83	-16	13	Y	26,33	34,83	-8,5	2,64	Y	82,83	111,33	-28,5	4,14	Y
P2	51,83	58,00	-6	5	Y	27,67	30,67	-3,0	0,93	N	84,33	106,00	-21,7	3,19	Y
P3	50,67	59,50	-9	7,2	Y	27,17	33,67	-6,5	2,02	Y	94,50	104,83	-10,3	1,52	N
P4	46,83	61,33	-15	12	Y	27,83	36,67	-8,8	2,75	Y	80,83	132,83	-52,0	7,65	Y
P5	48,67	59,83	-11	9,1	Y	29,33	33,33	-4,0	1,24	N	91,33	108,50	-17,2	2,53	Y
P6	50,17	65,33	-15	12	Y	28,67	35,50	-6,8	2,13	Y	87,83	136,33	-48,5	7,13	Y
P7	50,67	59,67	-9	7,3	Y	31,50	35,83	-4,3	1,35	N	93,50	140,00	-46,5	6,84	Y
P8	49,33	58,00	-9	7	Y	29,17	32,17	-3,0	0,93	N	87,33	112,83	-25,5	3,75	Y
P9	50,17	58,17	-8	6,5	Y	30,50	31,83	-1,3	0,4	N	94,67	105,00	-10,3	1,52	N
P10	49,50	59,17	-10	7,8	Y	29,17	32,83	-3,7	1,14	N	90,83	108,33	-17,5	2,57	Y
P11	50,00	59,50	-10	7,7	Y	28,33	36,33	-8,0	2,49	Y	96,67	129,67	-33,0	4,85	Y
P12	51,67	57,33	-6	7,6	Y	29,50	33,67	-4,2	1,29	N	95,50	92,50	3,0	5,02	Y

DISCUSSION

The present study provides compelling evidence that Rational Emotive Behavior Counseling (REBC) is an effective intervention for enhancing grit, growth mindset, and academic resilience among university students. The observed improvements suggest authentic psychological change rather than mere statistical variation. Increases in grit, particularly in perseverance and consistency of interest, are consistent with prior understandings of how these traits typically develop,[18,45] which emphasize the role of cognitive restructuring in fostering intrinsic motivation and sustained goal pursuit.

At the core of REBC lies the identification and disputation of irrational beliefs, which are replaced with more rational and adaptive cognitions.[28] For instance, maladaptive beliefs such as "If I struggle, I'm not smart" are reframed as "Struggling is part of the learning process." This cognitive shift fosters rational thinking, reduces psychological pressure, and enhances emotional regulation,[29] which in turn promotes greater goal-directed behavior. In addition, the internalization of rational beliefs supports the development of intrinsic motivation[30] and academic self – efficacy,[31] both of which reinforce perseverance and persistence in academic contexts.

REBC also appears to strengthen grit indirectly through its impact on resilience[32] and cognitive flexibility.[33] By enhancing metacognitive awareness,[34] the intervention enables students to adopt more strategic learning approaches and demonstrate greater adaptive persistence [35], particularly when confronting academic obstacles.

The findings further indicate that REBC positively influences students' mindsets, as participants began to adopt beliefs consistent with a growth-oriented view of personal ability,[18] including the understanding that effort drives learning and that setbacks represent opportunities for development.[36] Through its emphasis on restructuring self-limiting beliefs,[37] and correcting cognitive distortions,[38] REBC contributed to improved emotional regulation,[39] motivation, and self – efficacy.[40] Furthermore, by reframing failure in a more constructive light, REBC helps students maintain academic motivation despite difficulties.[41] Nonetheless, the study acknowledges that deeply embedded fixed mindset beliefs may be more resistant to change, particularly when rooted in emotion or identity.[42] While REBC addresses cognitive restructuring, it may require more experiential or longitudinal approaches to fully transform core beliefs.[43] Additionally, sustained changes in mindset may benefit from the inclusion of motivational and autonomy-supportive strategies.[30]

Academic resilience also showed significant improvement, as students demonstrated greater emotional adaptability, self-reflection, and help-seeking behaviors. These outcomes align with previous research emphasizing the importance of resilience in academic functioning.[44] The findings suggest that REBC effectively cultivates coping skills and self-efficacy,[45] while also promoting positive cognitive appraisal and stress reappraisal.[46] However, not all participants responded equally to the intervention. A subset of students exhibited limited gains in mindset and resilience, a finding echoed in earlier work.[47] These disparities may be attributed to individual differences in engagement, readiness for change, or perceived support.[19] Moreover, external factors such as academic pressure, social support, and environmental stability likely influenced outcomes.[49]

Limitations

A key limitation of this study is the absence of a control group, which restricts the ability to attribute observed improvements solely to the intervention. Without a comparison group, alternative explanations—such as maturation, external academic influences, or natural fluctuations in motivation—cannot be fully ruled out. Consequently, the findings should be interpreted with caution, and future studies are encouraged to employ experimental or quasi-experimental designs with appropriate control groups to strengthen causal inferences.

In conclusion, REBC is a promising psychological intervention for fostering grit, growth mindset, and academic resilience in higher education contexts. For optimal effectiveness, implementation should be accompanied by supportive academic environments and tailored to individual readiness and contextual factors.[32]

CONCLUSIONS

This study concludes that Rational Emotive Behavior Therapy (REBT) effectively enhances grit, growth mindset, and academic resilience in early-stage university students. These traits are vital for academic success but often hindered by stress, burnout, and adaptation issues. REBT helps restructure irrational beliefs, fostering perseverance, self-belief, and coping skills. Its implementation in campus counseling services in Indonesia is a relevant strategy to reduce academic failure and improve student well-being.

REFERENCES

1. Sugara GS. Student Quality-of-Life in Academic Culture Perspective. JOMSIGN: Journal of Multicultural Studies in Guidance and Counseling. 2018;2(1):47-60. https://doi.org/10.17509/jomsign.v2i1.10833

2. Warren JM, Hale RW. Predicting grit and resilience: Exploring college students' academic rational beliefs. Journal of College Counseling. 2020;23(2):154-67. https://doi.org/10.1002/jocc.12156

3. Zenner C, Herrnleben-Kurz S, Walach H. Mindfulness-based interventions in schools—a systematic review and meta-analysis. Frontiers in psychology. 2014;5:603. https://doi.org/10.3389/fpsyg.2014.00603

4. Duckworth AL, Quinn PD. Development and validation of the Short Grit Scale (GRIT–S). Journal of personality assessment. 2009;91(2):166-74. https://doi.org/10.1080/00223890802634290

5. Dweck CS. Mindset: The new psychology of success. New York: Random House; 2006.

6. Cassidy S. The Academic Resilience Scale (ARS-30): A new multidimensional construct measure. Frontiers in psychology. 2016;7:1787. https://doi.org/10.3389/fpsyg.2016.01787

7. Lan Y. The role of teachers' grit and motivation in self-directed professional development. Frontiers in Psychology. 2022;13:922693. https://doi.org/10.3389/fpsyg.2022.922693

8. Burnette JL, Billingsley J, Banks GC, Knouse LE, Hoyt CL, Pollack JM, et al. A systematic review and meta-analysis of growth mindset interventions: For whom, how, and why might such interventions work? Psychological Bulletin. 2022. https://doi.org/10.1037/bul0000368

9. Cohen L, Manion L, Morrison K. Research methods in education. London: Routledge; 2002. https://doi.org/10.4324/9780203224342

10. Ellis A. Can rational-emotive behavior therapy (REBT) and acceptance and commitment therapy (ACT) resolve their differences and be integrated? Journal of Rational-Emotive and Cognitive-Behavior Therapy. 2005;23:153-68. https://doi.org/10.1007/s10942-005-0008-8

11. David OA, Dryden W. Rational Emotive Behavioural Coaching: Present and future. In: New Directions in Rational Emotive Behaviour Therapy. Abingdon: Routledge; 2021. p. 127-41. https://doi.org/10.1007/978-3-319-74067-6_1

12. Sari SA, Sugara GS, Isti'adah FN. Effects of rational emotive behavior therapy on academic grit. Journal of Rational-Emotive & Cognitive-Behavior Therapy. 2022;40(4):857-78. https://doi.org/10.1007/s10942-022-00444-4

13. Sugara, Pratama. Manual Student Grit Scale. Tasikmalaya: Department Guidance and Counseling Universitas Muhammadiyah Tasikmalaya; 2022.

14. Rahmania A, Triwahyuni A, Kadiyono AL. Validitas Konstruk Growth Mindset Scale: Versi Bahasa Indonesia. Jurnal Psikologi. 2022;18(2):194-205. https://doi.org/10.24014/jp.v14i2.16925

15. Rahmawati H, Hutagalung FD, Harsiati T, Purwasih JHG. Validation of an Academic Resilience Scale for Indonesian University Students. In: 2024 IEEE International Symposium on Consumer Technology (ISCT); 2024 Aug. p. 142-7. https://doi.org/10.1109/ISCT62336.2024.10791287

16. Hickey M, Doyle KA. Rational emotive behavior therapy. In: Cognitive behavior therapies: A guidebook for practitioners. Hoboken: John Wiley & Sons; 2017. p. 109-42. https://doi.org/10.1002/9781119375395.ch4

17. Neenan M. Developing resilience: A cognitive-behavioural approach. London: Routledge; 2009. https://doi.org/10.4324/9781315189178

18. Duckworth AL, Peterson C, Matthews MD, Kelly DR. Grit: Perseverance and passion for long-term goals. Journal of Personality and Social Psychology. 2007;92(6):1087-101. https://psycnet.apa.org/doi/10.1037/0022-3514.92.6.1087

19. DiGiuseppe R, David OA. Rational emotive behavior therapy. In: Counseling and Psychotherapy with Children and Adolescents: Theory and Practice for School and Clinical Settings, Fifth Edition. Hoboken: John Wiley & Sons; 2015. p. 155-215. https://doi.org/10.1002/9781394259496.ch6

20. Peltier C, Smarinsky E, Brown CL, Lewis O, Lee DY. A Systematic Review of Data Analysis Decisions in Counseling Single-Case Research Designs to Inform Best Practices. Counseling Outcome Research and Evaluation.

2024;15(2):103-22. https://doi.org/10.1080/21501378.2024.2342588

21. Ledford JR, Lane JD, Severini KE. Systematic use of visual analysis for assessing outcomes in single case design studies. Brain Impairment. 2018;19(1):4-17. https://doi.org/10.1017/BrImp.2017.16

22. Ateş E, Şinikoğlu BG. A systematic meta-analysis of non-overlapping data on technology-assisted interventions for individuals with specific learning disabilities. European Journal of Special Education Research. 2025;11(4). http://dx.doi.org/10.46827/ejse.v11i4.6076

23. Vannest KJ, Ninci J. Evaluating intervention effects in single-case research designs. Journal of Counseling & Development. 2015;93(4):403-11. https://doi.org/10.1002/jcad.12038

24. Tankersley M, Harjusola-Webb S, Landrum TJ. Using single-subject research to establish the evidence base of special education. Intervention in School and Clinic. 2008;44(2):83-90. https://doi.org/10.1177/1053451208321600

25. Martin AJ, Marsh HW. Academic resilience and its psychological and educational correlates: A construct validity approach. Psychology in the Schools. 2006;43(3):267-81. https://doi.org/10.1002/pits.20149

26. Cassidy S. Resilience building in students: The role of academic self-efficacy. Frontiers in Psychology. 2015;6:1781. https://doi.org/10.3389/fpsyg.2015.01781

27. Ellis A. The relationship of rational emotive behavior therapy (REBT) to social psychology. Journal of rational-emotive and cognitive-behavior therapy. 2003;21:5-20. https://doi.org/10.1023/A:1024177000887

28. Wood A, Wilkinson A, Turner M, Haslam C, Barker J. Into the fire: applying Rational Emotive Behavioral Coaching (REBC) to reduce Irrational Beliefs and Stress in Fire Service Personnel. International Journal of Stress Management. 2021;28(3):232-43. https://doi.org/10.1037/str0000228

29. Katsikis D, Kostogiannis C. REBT Coaching for Young People to Achieve Goals and Develop in Life. In: Rational-Emotive and Cognitive-Behavioral Approaches to Child and Adolescent Mental Health: Theory, Practice, Research, Applications. Cham: Springer International Publishing; 2021. p. 453-73. https://doi.org/10.1007/978-3-030-53901-621

30. Ryan RM, Deci EL. Intrinsic and extrinsic motivation from a self-determination theory perspective: Definitions, theory, practices, and future directions. Contemporary educational psychology. 2020;61:101860. https://doi.org/10.1016/j.cedpsych.2020.101860

31. Rusadi RM, Sugara GS, Isti'adah FN. Effect of mindfulness-based cognitive therapy on academic grit among university student. Current Psychology. 2023;42(6):4620-9. https://doi.org/10.1007/s12144-021-01795-4

32. Zeng G, Hou H, Peng K. Effect of growth mindset on school engagement and psychological well-being of Chinese primary and middle school students: The mediating role of resilience. Frontiers in psychology. 2016;7:1873. https://doi.org/10.3389/fpsyg.2016.01873

33. Rahma S, Husni J, Sulistiawati D, Afridah M. Konseling REBT untuk meningkatkan self - love pada pelaku self-harm. Al-Isyrof: Jurnal Bimbingan Konseling Islam. 2024;6(1):61-73. https://doi.org/10.51339/isyrof.v6i1.1854

34. Breitmeyer AM, Turner MJ. Sport Coaching. In: Coaching for Rational Living: Theory, Techniques and Applications. Cham: Springer; 2018. p. 453-69. https://doi.org/10.1007/978-3-319-74067-623

35. Cunningham R, Turner MJ. Using Rational Emotive Behavior Therapy (REBT) with Mixed Martial Arts (MMA) athletes to reduce irrational beliefs and increase unconditional self-acceptance. Journal of Rational-Emotive & Cognitive-Behavior Therapy. 2016;34(4):289-309. https://doi.org/10.1007/s10942-016-0240-4

36. Yeager DS, Dweck CS. What can be learned from growth mindset controversies? American Psychologist. 2020;75(9):1269-84. https://psycnet.apa.org/doi/10.1037/amp0000794

37. Blackwell LS, Trzesniewski KH, Dweck CS. Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. Child development. 2007;78(1):246-63. https://doi.org/10.1111/j.1467-8624.2007.00995.x

38. Beck AT, Dozois DJ. Cognitive therapy: current status and future directions. Annual review of medicine. 2011;62(1):397-409. https://doi.org/10.1146/annurev-med-052209-100032

39. Eifediyi G, Ojugo AI, Aluede O. Effectiveness of rational emotive behaviour therapy in the reduction of examination anxiety among secondary school students in Edo State, Nigeria. Asia Pacific Journal of Counselling and Psychotherapy. 2018;9(1):61-76. https://doi.org/10.1080/21507686.2017.1412329

40. Wentzel KR. Introduction to the special issue on social and emotional learning. Educational Psychologist. 2019;54(3):127-8. https://doi.org/10.1080/00461520.2019.1637739

41. Yeager DS, Dweck CS. Mindsets that promote resilience: When students believe that personal characteristics can be developed. Educational psychologist. 2012;47(4):302-14. https://doi.org/10.1080/00461520.2012.722805

42. Gunderson EA, Sorhagen NS, Gripshover SJ, Dweck CS, Goldin-Meadow S, Levine SC. Parent praise to toddlers predicts fourth grade academic achievement via children's incremental mindsets. Developmental psychology. 2018;54(3):397. https://psycnet.apa.org/doi/10.1037/dev0000444

43. David OA, Dryden W. Rational Emotive Behavioural Coaching: Present and future. In: New Directions in Rational Emotive Behaviour Therapy. Abingdon: Routledge; 2021. p. 127-41. https://doi.org/10.1007/978-3-319-74067-6_1

44. Mohamed MG, Al-Yafeai TM, Adam S, Hossain MM, Ravi RK, Jalo FM, et al. The significance of emotional intelligence in academic stress, resilience, and safe transition from high school to university: An SEM analysis among Northern Emirati university students. Global Transitions. 2025;7:109-17. https://doi.org/10.1016/j.glt.2025.02.003

45. Turner M, Barker JB. Examining the efficacy of rational-emotive behavior therapy (REBT) on irrational beliefs and anxiety in elite youth cricketers. Journal of Applied Sport Psychology. 2013;25(1):131-47. https://doi.org/10.1080/10413200.2011.574311

46. Sarkar M, Fletcher D. Psychological resilience in sport performers: a review of stressors and protective factors. Journal of sports sciences. 2014;32(15):1419-34. https://doi.org/10.1080/02640414.2014.901551

47. Buathong P. The effect of a growth mindset intervention on underprivileged students' English intelligence mindset and academic resilience with perceived English teacher support as a moderator [dissertation]. Bangkok: Chulalongkorn University; 2019. https://doi.org/10.58837/CHULA.THE.2019.456

48. Zhao H, Xiong J, Zhang Z, Qi C. Growth mindset and college students' learning engagement during the COVID-19 pandemic: A serial mediation model. Frontiers in Psychology. 2021;12:621094. https://doi.org/10.3389/fpsyg.2021.621094

49. Moon JR, Huh J, Song J, Kang IS, Park SW, Chang SA, et al. The effects of rational emotive behavior therapy for depressive symptoms in adults with congenital heart disease. Heart & Lung. 2021;50(6):906-13. https://doi.org/10.1016/j.hrtlng.2021.07.011

FUNDINGS

None.

CONFLICT OF INTEREST

None.

AUTHORSHIP CONTRIBUTION

Conceptualization: Mazidah Mohd Dagang, Gian Sugiana Sugara.
Drafting - original draft: Galuh Adji Pratama.
Writing - proofreading and editing: Galuh Adji Pratama, Gian Sugiana Sugara.