

## Validity and reliability “K<sup>2</sup> REBT” group counseling module depression among students

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### ABSTRACT

Depression among teenagers, especially students, is an increasing concern with serious consequences, including criminal behavior and suicide. This study develops a rational emotive behavior therapy (REBT) counseling module aimed at reducing irrational beliefs and enhancing the cognitive, emotional, and behavioral well-being of depressed students. The module comprises four sub-modules: self-acceptance, feelings, beliefs, and challenging, based on established REBT principles. The 30 students diagnosed with depression participated in reliability testing, while content validity was assessed by five experts, yielding a high validity quotient of 0.930. The module's reliability was confirmed with a Cronbach's alpha of 0.964, indicating strong internal consistency. These findings suggest that the REBT Module is a highly valid and reliable tool for improving coping strategies and alleviating depression among students, making it a valuable addition to school counseling programs.

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## 1. INTRODUCTION

Depression among students has become a significant concern, gaining attention from scholars, educators, and policymakers alike. As society has evolved from ancient times to the present digital age, students increasingly face various social issues that contribute to mental health challenges [1]. Despite the opportunities for exploration and innovation that contemporary technology provides, students frequently engage with these advancements without fully understanding the potential risks involved [2].

In today's society, there is a marked increase in student willingness to confront significant social issues, often challenging conventional teaching and school regulations. This defiance manifests in behaviors ranging from smoking and bullying to more severe criminal activities such as theft and robbery [3]. Alarmingly, some students engage in actions lacking rational consideration, including involvement in prostitution, abortion, and other egregious crimes [4]. The prevalence of these social issues has become a global concern, prompting engagement from various stakeholders, including parents, educators, the community, and governmental bodies.

Multiple factors, primarily psychological and socio-emotional, have been identified as contributors to the rise of such behaviors among students [1], [5]. Elevated levels of depression can lead to students exhibiting disruptive and harmful behaviors [6]. As critical contributors to a nation's future, students embody a valuable resource of diverse expertise across critical thinking, spirituality, and technology domains [7]. Therefore, the reluctance of students to act responsibly raises serious concerns about the future [8].

Recognizing depression as a significant precursor to adolescent involvement in immoral activities has spurred extensive scholarly discussion [9], [10]. According to various studies [11]–[14], depression has been closely linked to these behaviors.

Historically, there has been debate regarding the presence of depression in children and adolescents; however, recent societal shifts reveal a disturbing trend of depressive symptoms among students. Many now experience severe and unpredictable episodes of depression [15], [16]. Research indicates that rigid parental controls can exacerbate feelings of depression, prompting rebellious behavior that deviates from societal norms [17]. To counter this trend, it is essential to provide optimal support and education, as highlighted by Burbules *et al.* [18], emphasizing the need for timely interventions given the multitude of social challenges confronting students today.

Effective counseling interventions and specialized depression modules [15], [19] can help promote well-being by instilling a sense of tranquility and self-esteem among affected students. This study aims to investigate methods for reducing depression levels among secondary school students in Malaysia. To facilitate this, a new intervention module has been developed, taking a proactive approach to support students dealing with depression. The K<sup>2</sup> rational emotive behavior therapy module (REBT), adapted from its original version for depressed students, focuses on restoring rational thinking and preventing feelings of marginalization while guiding students towards a more promising future. This comprehensive module addresses the irrational elements underlying depression to promote overall well-being.

Depression is characterized by various symptoms, including sadness, guilt, low self-esteem, and dissatisfaction with life [16]. It can also lead to issues such as sleep disturbances, loss of appetite, lack of energy, and, in severe cases, suicidal thoughts [19]. According to Salelkar and Borker [20], an individual is considered depressed when they experience at least five symptoms consistently over two weeks. By 2020, depression was projected to be the second leading cause of emotional health issues globally, with around 350 million individuals affected [17].

In a clinical context, depression is regarded as a serious condition requiring appropriate treatment, often distinguished from transient feelings of sadness that many experience [12], [21]. Although individuals may occasionally feel down, prolonged depression can forewarn of severe behavioral issues, including suicidal ideation and significant mental health impairments [22]–[24]. Given its profound impact on cognitive, emotional, social, and physical well-being, developing intervention-based modules to tackle emotional challenges among students is critical. Prior research has demonstrated the efficacy of solution-focused brief counseling and REBT therapy in addressing school-related depression [25]–[27]. These strategies have proven effective for students across varying demographics, regardless of gender or educational background.

In university settings, brief REBT interventions have been tailored to meet the needs of first-year students adjusting to academic life [28]. While there have been efforts focused on counseling interventions for emotional adjustment issues in universities, such studies often remain limited in scope, focusing on specific populations rather than the broader student community [28]. These findings underscore the importance of not generalizing results beyond the specific contexts in which studies were conducted. Research has consistently indicated that irrational thinking is a common factor in adolescents' psychological disorders, highlighting the need for REBT approaches in mitigating student depression. Early intervention is crucial to addressing this issue and fostering a supportive environment for affected students. Current counseling modules often lack a dedicated focus on depression and structured materials, which creates a pressing need for a comprehensive REBT-based counseling module.

This study aims to develop a robust K<sup>2</sup> module (REBT) as a vital resource for enhancing existing programs. The module is designed to serve not only as an intervention tool but also as a guide for counselors managing sessions with depressed students. Ultimately, this research will assess the validity and reliability of the newly constructed K<sup>2</sup> module (REBT) in combating depression among students.

## 2. METHOD

### 2.1. Research design

The process of establishing validity and reliability is a crucial step in constructing a module, as it ensures the quality and effectiveness of the module. According to Russell [12], questionnaires are one of the most efficient ways to gather comprehensive quantitative data. High-quality questionnaires can enhance the validity of a module, helping to achieve its intended objectives in the development process [13], [16], [29]. Russell [12] also suggests that a valid module should meet five key criteria: i) The module content aligns with the needs of the target population; ii) The content is clear and can be implemented effectively; iii) The material fits within the allocated time frame; iv) The module content promotes positive behavior change in students; and v) The content encourages students to strive for excellence.

Two types of validity are used in this process: face validity and content validity, both evaluated by an external panel. The expert review focuses on aspects such as the appropriate use of language in the module. Notably, the REBT module is designed using simple, accessible language for school students. In this phase, two expert language teachers reviewed the module's language before it was presented to a panel of five experts for further evaluation. A set of module content questionnaires adapted from Russell [12] and aligned with Creswell and Clark [29] was used as the primary measurement tool in this study. Five experts reviewed the module content to assess its level of validity, providing ratings on a scale of 1 (strongly disagree) to 10 (strongly agree). According to Russell [12], a module is considered valid if it achieves over 70% content validity. Given the study's location and many respondents, quantitative research is an appropriate option to collect research data more efficiently, quickly, and easily analyzed [14], [30]–[32]. Roughly speaking, the study will focus on the level of student depression detected among secondary school students around Penang. The validity and reliability of depression will be analyzed.

This study used a questionnaire as the data collection tool. Expert consensus percentage scores module content validity scores and reliability scores were obtained using Cronbach's alpha scores. For this purpose, three sets of survey questions were used; content validity survey questions, content validity for each sub-module and activity, and content reliability. The content validity test [13] used a test form adapted from Creswell and Clark [29]. The questionnaire consists of five items, the module content meets the target population, the module content is clear and can be implemented well, the module content is appropriate for the intended time, the module content can help change thinking more rationally for depressed adolescents, and the module content can reduce student depression.

The response options were placed in the form of a five-point Likert scale consisting of 5=strongly agree, 4=agree, 3=uncertain, 2=disagree, and 1=strongly disagree. The content validity question for each submodule and activity used the format proposed by Russell [12]. The questionnaire has been customized according to the needs of REBT which has four modules for seven group counseling sessions. Response options used a semantic scale of 0 (strongly disagree) to 10 (strongly agree). Review questions for the reliability module were administered to students to obtain module reliability data. This questionnaire was developed based on the objectives contained in the module [30].

The validity of the module content was determined through an expert consensus assessment consisting of five experts who were appointed based on criteria such as experience in module development, and REBT counseling. Four of the experts were selected among the lecturers from Universiti Pendidikan Sultan Idris (UPSI), Universiti Sains Malaysia (USM), and Universiti Kebangsaan Malaysia (UKM). Meanwhile, another expert was trained as a counseling practitioner at Kolej Matrikulasi Pulau Pinang (KMPP) and the school. Whereas, the reliability of the module is obtained through probing questions answered by students. The sample used in determining the reliability of the module consists of 30 students of secondary school level 4. The sample was selected through the method of purposeful sampling. The sample number is sufficient on the suggestion of David *et al.* [31] where the number of subjects is from a small part of the population that will be studied to test the reliability of the instrument.

## 2.2. Module validity study tool

The permission to conduct the study was obtained from the Education, Planning and Research Division, and Ministry of Education Malaysia. In the first step, the researchers provided three sets of probes to test the validity and reliability of the module. In the second step, researchers identified five experts to assess the validity of the module. The complete draft of the REBT module, along with a copy of the content validity test questions and a letter of recommendation, was sent to all the appointed experts. A total of 30 school students were selected to undergo the module validity process during the pilot test. In the third step, the reviewers analyzed the test questions' results to assess the module's validity and reliability [12]. The outcome of the appraisal of the module's content validity conducted by a panel of five experts for this study has been presented. Table 1 shows division of expert responses to feedback inquiry questionnaires of structured group counseling module REBT by field of expertise representation.

Table 1. division of expert responses to feedback inquiry questionnaires of structured group counseling module REBT by field of expertise

Institution	Field of expertise	Numbers
Universiti Kebangsaan Malaysia	Counseling	1
Universiti Sains Malaysia	Counseling	1
Universiti Pendidikan Sultan Idris	Counseling	2
Kolej Matrikulasi	Psychology and Counseling	1
Total		5

### 2.3. Content of REBT therapy module

The REBT therapy module is built based on the REBT theory by Albert Ellis. The content of this module to reduce irrational thinking while reducing student depression and testing the reliability and validity of the content consists of seven sessions. The following are the seven sessions of counseling intervention conducted in the pilot study:

- **Session 1: relationship building (introduction to the confusion group)**

This session is designed to focus on relationship-building and is devoted entirely to exploring the rules and guidelines for effective counseling and group dynamics. It aims to help group members develop their skills and deepen their understanding of their role within the group. The session emphasizes the importance of building strong relationships between counselors and group members and offers guidance on fostering open communication and trust. By the end of the session, participants will have gained a clearer understanding of the skills necessary for effective counseling and group facilitation. They will have developed a deeper appreciation for the value of collaboration and mutual support in achieving shared goals.

- **Session 2: problem description (understanding depression)**

The purpose of this session is to support group members in recognizing indications of depression by gaining an understanding of depression's significance and symptoms from multiple angles, including emotions, thoughts, physiology, and behavior. Additionally, the session will explore potential secondary disruptions. Participants will collaborate to establish a therapeutic environment that promotes a feeling of safety and openness while discussing their emotional state. This will assist in evaluating the emotional health of those involved.

- **Session 3: problem identification (identifying forms of irrational thinking)**

This session focuses on helping group members identify depression issues by understanding the meaning, and symptoms of depression from the aspects of emotions, thoughts, physiology, and behavior. This session also examines secondary disturbance. Then group members, create a therapeutic atmosphere while sharing a sense of security while in the group. This is also to determine the emotional state of the group members.

- **Session 4: treatment objective (recognizing the set of irrational belief)**

The objective of this session is to aid members of the group in acknowledging their dominant thoughts and experiences. The emphasis is solely on the principles of the asset-based community development (ABDC) model and REBT, how to question thought processes, and how to detect the group's thinking patterns. The current set of beliefs and thoughts will be evaluated during this session. By linking symptoms and thoughts, the aim is to support group members in recognizing the fundamental core concerns.

- **Session 5: disputes irrational thought systems (exercises in disputing irrational thoughts)**

This session is designed to equip clients with the skills and knowledge required to dispute irrational thoughts effectively. This will be achieved by challenging irrational thought systems, utilizing a diagrammatic representation as a basis for analysis. By engaging in this session, clients will be empowered to identify and challenge irrational thoughts, ultimately enabling them to overcome negative thought patterns and replace them with more positive and rational alternatives. The session will be structured to facilitate active participation, to promote a deeper understanding of the underlying thought processes that contribute to irrational thinking. Through this process, clients will develop the tools necessary to recognize and challenge irrational thoughts when they arise, leading to improved mental health and well-being. Overall, this session presents a valuable opportunity for clients to enhance their cognitive and emotional resilience, and to cultivate a more positive and productive mindset.

- **Session 6: organizing support strategies (organizing routine problem-solving strategies)**

The current session is geared towards assisting group counseling in organizing routine problem-solving strategies. The objective is to facilitate group members in managing and reducing their depression by gaining clarity on the symptoms and acquiring the necessary skills to alter their irrational thinking. The session will include exercises to diminish negative thought patterns amongst the group members effectively.

- **Session 7: observation of the group intervention session**

The main goal of this session is to help group members create a summary of the entire session that is concise, well-organized, and accurately reflects the key points covered. The session is designed to provide participants with the necessary skills and knowledge to produce a high-quality summary that effectively

captures the essence of the session. We encourage participants to pay close attention to the details discussed during the session and to actively engage in summarizing the content. By doing so, participants can effectively communicate the key messages and objectives of the session to a wider audience.

#### 2.4. Module construction model

The development of this study module follows the construction model proposed by Russell [12]. Their model introduces a more thorough approach to building an integration module, divided into two key stages: drafting the module and testing and evaluating it. Figure 1 illustrates the approach used for constructing the model as translated in this study.

The draft preparation phase comprises nine steps, beginning with goal setting and culminating in the consolidation of the draft module. The second phase, focused on testing and evaluation, consists of seven steps, progressing from an incomplete module to a fully developed and ready-to-use module. Figure 1 outlines the approach employed in constructing the model used in this study. This model was selected for its integrated and comprehensive nature, having already undergone a pilot study. The insights gained from the pilot study contribute to the model's validity and reliability, providing researchers with feedback to address any existing weaknesses. Based on these recommendations, this study has adapted the model to ensure the module's validity and reliability.

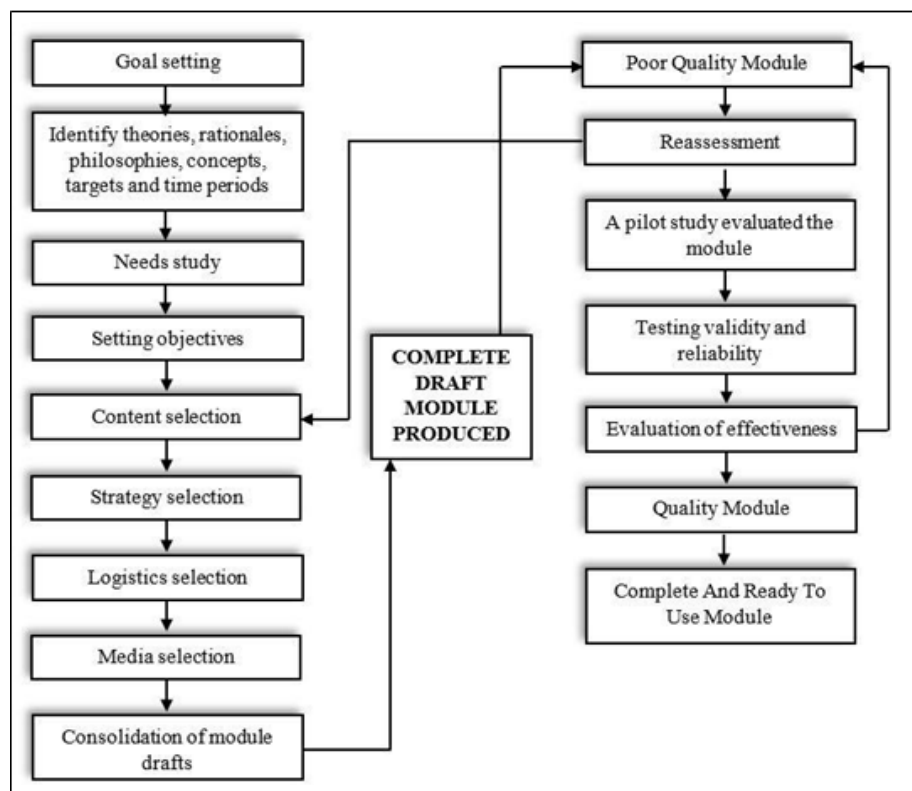


Figure 1. Module construction design model

#### 2.5. Data analysis

The data was analyzed to obtain percentages of expert consensus and content validity. To determine if the content validity is good, the opinions of several researchers [32], [33] were considered. They stated that achieving a score of 70% and above is considered high, while a score below 70% indicates poor content validity. Additionally, experts provided comments to improve the module's content. Cronbach's alpha method was used to measure the module's reliability. A coefficient close to 1.00 indicates high reliability, according to Anuar *et al.* [32] suggested a measurement scale with a Cronbach's alpha level exceeding 0.70 is reliable. Meanwhile, Hennink *et al.* [34] recommended a minimum alpha Cronbach level of 0.60 for high reliability. Before a module can be used in a study, the content must be validated by experts to ensure it meets its objectives and measures what it should.

According to the prescribed method, the cumulative score assigned by the experts using the Likert scale is divided by the maximum possible score of 25. This quotient is then multiplied by 100, and the resulting percentage is rounded to two decimal places. Notably, as stated in Govindasamy *et al.* [30], if the resulting value exceeds 0.70, it indicates that the module demonstrates strong content validity. The content validity of the K<sup>2</sup> module (REBT) sub-modules are assessed based on this formula, as represented in (1).

$$\frac{\text{Number of marks from experts}}{\text{Maximum score (25)}} \times 100\% = \text{Content validity stage} \quad (1)$$

### 3. RESULTS AND DISCUSSION

#### 3.1. Overall content validity of the REBT module

The experts have assessed the overall validity of the module content using the probes developed by Jaladin *et al.* [35] and adapted from Creswell and Clark [29]. Table 2 presents the expert consensus findings which show the minimum percentage obtained (96%) for the module content is suitable for the target population, (84%) the module content can be implemented well, (92%) the module content is appropriate for the intended time, (100%) the module content can help change more rational thinking for moody adolescents, and (96%) the module content can help change more rational thinking for moody adolescents. Thus, the overall score obtained for all items is 93% which corresponds to a content validity peptide of  $0.93 > 0.70$ , proving this module has high and good content validity by Russell [12]. Experts agree that the content of this module can effectively help students develop more rational thinking, particularly those experiencing depression.

Additionally, 100% of the experts concurred that the K<sup>2</sup> module (REBT) can enhance counselors' skills at a more advanced level. The overall content validity of the module is 93%, which, according to Russell [12], exceeds the recommended threshold of 70% for a well-constructed module. This indicates that the K<sup>2</sup> module (REBT) demonstrates a high level of proficiency in its design. Furthermore, all experts unanimously accepted the five criteria outlined in the module. The summary of the content validity, based on expert evaluations, is presented in Table 2. This table illustrates the validity of the K<sup>2</sup> module (REBT) sub-modules as assessed by the experts. Table 2 also shows the validity of the content of the K<sup>2</sup> module (REBT) sub-modules by an expert of representation.

Table 2. The validity of the content of the K<sup>2</sup> module (REBT) sub-modules by an expert

No.	Statement	Percentage	Content validity	Expert opinion
1	The module content meets the target population	96	.960	Accepted
2	The module content is clear and can be implemented well	84	.840	Accepted
3	The content of the module is appropriate for the intended period	92	.920	Accepted
4	The content of the module can help change thinking more rationally for depression students	1.0	1.00	Accepted
5	The module content can reduce the depression of students	96	.960	Accepted

Table 2 presents the expert evaluations of the module's content validity based on five key statements. Each statement is assessed by experts, and the results are reported as both a percentage and a content validity coefficient. In terms of target population suitability, the module content is deemed highly suitable for the target population, with an approval rating of 96% and a content validity coefficient of 0.960, indicating strong agreement among experts. In terms of clarity and implement ability, the clarity of the module and its potential for successful implementation received an 84% approval rating, with a content validity coefficient of 0.840. While this is lower than the other criteria, it is still within an acceptable range, indicating that the module is considered clear and practical. In terms of appropriateness for the intended period, experts agreed that the content is appropriate for the time period intended for its use, with a 92% approval rating and a content validity coefficient of 0.920. In terms of rational thinking and depression, the module's effectiveness in promoting rational thinking among students with depression received unanimous support, with a perfect score of 100% and a content validity coefficient of 1.0, reflecting the highest level of agreement. In terms of depression reduction, the content's potential to reduce depression in students also received strong approval, matching the first statement with a 96% approval rating and a content validity coefficient of 0.960. Overall, the coefficient content validity of the module across all statements is 93% with a content validity coefficient of 0.930, which confirms that the module's content is robust, well-constructed, and suitable for the intended population. The consistent "accepted" expert opinion across all criteria further reinforces the module's reliability and effectiveness.

### 3.2. Analysis of sub-modules and activity content validity

A group of experts evaluated the validity of the content of the submodules and activities using a questionnaire modified according to Creswell and Poth [36]. Table 3 shows the validity results from experts referring to the activities listed in the K<sup>2</sup> module. There are seven modules in all with a total module breakdown of eight sub-modules. All modules submitted were unanimously receiving from all five experts. Table 3 shows the validity of the content of the K<sup>2</sup> module (REBT) sub-modules by an expert representation.

Table 3. The validity of the content of the K<sup>2</sup> module (REBT) sub-modules by an expert

Sub modules	Percentage	Content validity coefficient	Result
Session 1: relationship building	75.0	0.75	Accepted
Activity – I can see your voice			
Activity – Centre square			
Session 2: problem description (understanding depression)	91.5	0.915	Accepted
Activity – Your eyes			
Session 3: problem description (identify forms of irrational thinking)	89.9	0.899	Accepted
Activity – The magic of rational thinking			
Session 4: treatment objective (recognizing the set of irrational thoughts)	89.0	0.890	Accepted
Activity – The magic of rational thinking			
Session 5: disputes irrational thought systems (exercises in disputing irrational thoughts)	92.3	0.923	Accepted
Activity – Thermostat rational			
Session 6: organizing support strategies (organizing routine problem-solving strategies)	88.9	0.889	Accepted
Activity – May dream come true			
Session 7: observation of the group intervention session.	87.0	0.870	Accepted
Activity – Final word			
Overall	93.0	0.930	Accepted

Table 3 presents the validity results from expert evaluations of the activities included in the K<sup>2</sup> module (REBT). The module consists of seven main modules, with a total of 18 sub-modules. All the submitted modules were unanimously approved by the five experts. Among them, the sub-module “disputes irrational thought systems (exercises in disputing irrational thoughts): getting to know depression” received the highest validity rating, scoring 92.3%. On average, the other modules also achieved a high validity percentage, with scores above 87.8%. However, one sub-module, “relationship building,” received a slightly lower validity score of 75%. A detailed overview of the modules within the K<sup>2</sup> module (REBT) is provided in Table 3. The findings on the content validity of the submodules and activities of the REBT module. The study results reveal that the content validity coefficient stands at 0.93, surpassing the minimum value of 0.70. Further comparative analysis by subcategory indicates that session one scores 0.750, while session two scores 0.915, session three scores 0.899, session four scores 0.890, session five scores 0.923, session six scores 0.889, and session seven scores 0.870. Consequently, the overall score of the REBT module, based on expert ratings on each submodule, surpasses the minimum score of 0.70, indicating expert consensus. The study findings suggest that the REBT module has high and good content validity. Table 4 shows the module expert comments and improvements representation.

Table 4. Module expert comments and improvements

No	Comments	Improvements
Expert 1	The module is suitable for group sessions Appropriate for structured, but for structured groups, dozens, many more activities are appropriate	The activities in the corresponding group are reviewed and selected so that they are more appropriate for the activity
Expert 2	This module can convey the strengths of the module suitably based on the theoretical module and REBT. It was improved after reliability	
Expert 3	Improvements to the time to match the planned activity	The time settings for each session have been improved. Each session is timed for 60 to 120 minutes depending on the number of activities that need to be done
Expert 4	A good module that corresponds to the theoretical REBT. Refine after pilot according to needs	
Expert 5	A good module may be able to look back to the period allotted for certain activities within the module so that the expected input is comprehensive	The time settings for each session have been improved. Each session is intended to last from 60 to 120 minutes depending on the number of activities that need to be performed

Table 4 summarizes the feedback provided by five experts on the module, along with the corresponding improvements made based on their suggestions. Expert 1: the feedback highlighted that the module is well-suited for structured group sessions but suggested that for larger groups, additional activities might be needed. In response, the activities designed for group sessions were reviewed and adjusted to better suit the group size, ensuring they are appropriate and effective. Expert 2: this expert acknowledged that the module effectively communicates its strengths, particularly in alignment with the theoretical framework and REBT. The module was enhanced following a reliability assessment, though no specific improvements were noted, indicating satisfaction with the module's content. Expert 3: the expert pointed out the need for improvements in the timing of activities to align with the planned schedule. In response, the time allocated for each session was adjusted. The sessions now range from 60 to 120 minutes, depending on the number of activities involved, ensuring that the timing is appropriate for each session's content. Expert 4: this expert described the module as good and well-aligned with the REBT theoretical framework. They recommended refining the module after conducting a pilot study to address specific needs. No specific improvements were noted, suggesting general approval of the module's current state. Expert 5: the final expert suggested revisiting the time allotted for certain activities to ensure comprehensive input from participants. As a result, the time settings for each session were adjusted to range from 60 to 120 minutes, similar to the improvements made based on expert 3's feedback. Overall, the expert feedback primarily focused on the appropriateness of activities for different group sizes and the timing of sessions. The improvements made in response to these comments indicate that the module has been fine-tuned to better meet the needs of its intended audience, ensuring that it is both practical and effective.

### 3.3. Module expert comments and improvements

The first expert suggested that this module is suitable for group sessions. But for structured groups, dozens, many more activities are suitable. The second expert also suggested improvement, it is suggested that this module can convey the strengths of the module by the theoretical basis of the module and REBT. This module needs to be improved after obtaining reliability. The third expert also recommended improvements to the time to be by the proposed activities. The time settings for each session have been improved. Each session is timed for 60 to 120 minutes depending on the number of activities that need to be done. The fourth expert further stated that this module is good and follows the theoretical REBT. The module needs to be improved after the pilot according to the needs. The last expert also gave feedback that this Module is good, and possibly can look back to the period allotted for certain activities in the module so that the expected input is comprehensive. Improvements have been made to the timings for each session. Each session is timed for 60 to 120 minutes depending on the number of activities that need to be done. Based on Table 5 in the pilot study, the overall reliability score was over the 0.60 level, i.e. 0.964. Table 5 shows overall reliability value of the  $K^2$  (REBT) module representation.

Based on the pilot study, the sub-module's reliability score was over the highest alpha value was 0.915 for the activity of understanding depression and the lowest alpha value was .750 for the activity of building relationships. The results show that the Module is acceptable and reliable and has efficacy in interventions to reduce adolescent depression. Table 6 shows the reliability value of the  $K^2$  (REBT) sub-modules of representation.

Table 5. The overall reliability value of the  $K^2$  (REBT) module

Sub module	Reliability value $\alpha$
Module $K^2$ (REBT)	0.964

Table 6. The reliability value of the  $K^2$  (REBT) sub-modules

Sub module	Reliability
Session 1: building relationships (introduction and recognition of depression groups)	0.750
Session 2: problem description (understanding depression)	0.915
Session 3: description (identify forms of irrational thinking)	0.899
Session 4: treatment objective (recognizing the set of irrational thoughts)	0.890
Session 5: disputes irrational thought systems (exercises in disputing irrational thoughts)	0.923
Session 6: organizing support strategies (organizing routine problem-solving strategies)	0.889
Session 7: observation of the group intervention session	0.870

### 3.4. Discussion

The REBT module addressing student depression issues can be considered complete, having successfully undergone validity and reliability studies consistent with established module development

procedures [34], [36], [37]. Expert assessments on content validity indicate that the module aligns well with the target population and meets the objectives outlined within the designated timeframe. This finding is in accordance with Creswell and Clark [29], which contends that a module subject to validity assessment must fulfill five criteria: ensuring alignment with the target population, employing appropriate teaching methods, providing adequate time allocation, effectively reducing irrational thinking among students, and ultimately decreasing adolescent depression.

Previous researchers have conducted content validity assessments on similar modules, such as those referenced in [36]–[47]. The findings of the current study underscore the significance of the REBT module, demonstrating its congruence with prior research focusing on mitigating student depression. The module has undergone a rigorous validation process, encompassing both content validity and reliability assessments an essential requirement for its effectiveness within the target group. Measurement tools and modules are crucial resources for researchers, enabling them to gather a variety of relevant data. As noted in several studies [14], [30], [48], [49], the terms “measuring instrument” and “module” can be used interchangeably. Module validity is reflected in the outcomes achieved through its implementation, necessitating that these outcomes align with the specific objectives the researcher aims to measure. Evaluation by expert assessors confirms the high validity of the REBT module, indicating its capacity to positively influence students’ cognitive frameworks, behaviors, and self-concepts. A validity result of at least 70%, as discussed by [26], [50], signifies the module’s effectiveness, while the REBT-creative guidance theory module achieving over 80% validity illustrates its comprehensive measurement capabilities across the targeted field.

Regarding reliability, this study demonstrates that the REBT module has an impressive reliability coefficient of .964. According to Ghani and Rozub [26], a reliability threshold of 0.60 or higher indicates a suitable level of consistency. The findings confirm that the REBT counseling module is both acceptable and reliable, positioning it as a viable intervention to enhance rational thinking, reduce aggressive behavior, and alleviate depression among school students. This endorsement of the module reflects adherence to established practices in module development and validation.

Furthermore, the need to emphasize skills related to REBT in combating student depression cannot be understated. Counselors in schools and higher learning institutions must integrate these therapeutic approaches into their annual programming. The methodological foundation of this study, which aligns with objective-based research questions as proposed by [14], [51] and modified by Govindasamy *et al.* [30], proves effective for establishing the validity and reliability of the module [26], [47], [52]. Such findings highlight the REBT module’s versatility, making it suitable for addressing depression among students in various educational contexts a crucial consideration as we increasingly recognize the importance of mental health interventions targeted at adolescents.

Extensive studies have examined the validity and reliability of REBT module in reducing depression among students. For instance, Calnitsky [40] demonstrated the module’s effectiveness in managing depression among secondary school adolescents in Malaysia. Similarly, Al-Abdullatif and Gameil [41] found it effective across different age groups, supporting the broader applicability of REBT for children and adolescents. Although Outhwaite *et al.* [42] reported that REBT may be less effective for certain adolescents, this claim is counterbalanced by previous findings [40], [41], which advocate for the method’s efficacy.

Moreover, the study by Calnitsky [40] emphasized the necessity of training students in the effective utilization of REBT interventions. As for the module’s reliability and validity, Schultz *et al.* [45] reported a Cronbach’s alpha reliability coefficient ranging from 0.73 to 0.92, indicating high reliability. Additionally, a content validity index of 80% affirms the module’s capacity to assess irrational thinking and aggressive behaviors appropriately. Collectively, these findings support the proposition that REBT serves as a beneficial intervention for alleviating depression among students and young people. Unfortunately, some educational institutions may not prioritize depression, viewing it as less urgent than issues like truancy or substance abuse. Such an outlook often leads to depression being underestimated, reducing societal awareness of its seriousness. This study underscores that depression warrants significant attention, advocating for proactive counseling measures within school environments. As educational practices in Malaysia evolve—reflecting the influence of changing times and new educational policies focused on student well-being—it is imperative for teachers and counselors to recognize and adapt to these shifts.

Given the unprecedented reliability and validity of the REBT module, it is recommended as an effective tool for assessing culturally responsive leadership among Malaysian school leaders [26], [45], [46]. School leaders inclusive of teachers and counselors should prioritize the quality of education as a focal point in their professional development [53], [54]. Thus, this study emphasizes the importance of counselors being proactive in identifying and implementing effective interventions to address student depression early on. By fostering collaboration among parents, teachers, and the broader community, we can make strides toward preventing depression and addressing social issues before they escalate.

The primary objective of this study was to evaluate the reliability and validity of the REBT modules. The results indicate that the REBT module is not only highly reliable and valid in addressing student depression

but is also conducive for implementation in educational institutions. This module empowers adolescents to tackle emotional and mental health challenges effectively, benefiting various educational settings.

In conclusion, the findings of this study regarding the REBT module for addressing student depression provide significant insights into the existing literature. The module has successfully undergone thorough validation processes, affirming its strong content validity and reliability in line with established standards. The theoretical and practical implications of the study are substantial, underscoring the necessity of integrating REBT-based skills into school counseling programs while validating the module's effectiveness. The results hold critical implications for adolescent mental health, particularly in school-based counseling contexts, reinforcing the module's role as an effective tool for reducing depression and enhancing rational thinking among students. By equipping school counselors and educators with this validated tool, they can better address the pressing issue of adolescent depression, ultimately leading to improved student outcomes. The REBT module stands as a targeted intervention that not only addresses cognitive distortions contributing to depression but also empowers students with practical strategies for navigating their complex emotional landscapes.

#### 4. CONCLUSION

Depression is a significant psychological condition that profoundly affects students' health and well-being, potentially leading to serious social issues such as criminal behavior and suicide. This study aims to address the urgent need for effective interventions to reduce depression among students, especially as they transition into high school—a critical time when many adolescents begin to experience depressive symptoms. The primary goal of this study was to evaluate the validity and reliability of a REBT counseling module specifically designed for students. The results indicate that the REBT module is both valid and reliable, exhibiting high content validity and a robust reliability coefficient. These findings suggest that the module serves as a strong resource in educational settings, helping students manage depression by challenging irrational beliefs and promoting healthier emotional and cognitive patterns.

This study emphasizes the importance of addressing depression systematically and early within the school environment. By implementing the REBT module, counselors and educators can provide targeted support to students, potentially preventing the progression of depressive symptoms into more severe issues. The structured approach of the module offers practical strategies to enhance students' emotional resilience and coping skills, which are crucial for their overall mental health and academic achievement.

In conclusion, the validation of the REBT module as an effective intervention tool highlights its potential application in school counseling programs. By incorporating this module into existing counseling frameworks, schools can better support the mental health of their students, fostering a more positive and productive educational environment. This study contributes to the field by offering a validated and reliable resource that educational institutions can readily adopt to combat the widespread issue of student depression. Depression is a serious psychological condition that can have profound effects on students' health and well-being, potentially leading to severe social problems such as criminal behavior and even suicide. This study was conducted to address the need for effective interventions to reduce depression among students, particularly as they enter high school—a critical period when many adolescents begin to experience depressive symptoms.

The primary objective of this study was to assess the validity and reliability of a REBT counseling module designed specifically for students. The results of the study demonstrated that the REBT module is both valid and reliable, with high content validity and a strong reliability coefficient. These findings suggest that the module is a robust tool for use in educational settings to help students manage depression by reducing irrational beliefs and promoting healthier emotional and cognitive patterns.

This study highlights the importance of addressing depression early and systematically within the school environment. By implementing the REBT module, counselors and educators can provide targeted support to students, potentially preventing the escalation of depressive symptoms into more severe issues. The module's structured approach offers practical strategies for improving students' emotional resilience and coping skills, which are essential for their overall mental health and academic success. In conclusion, the validation of the REBT module as an effective intervention tool underscores its potential utility in school counseling programs. By integrating this module into existing counseling frameworks, schools can better support the mental health of their students, ultimately fostering a more positive and productive educational environment. The findings of this study contribute to the field by providing a validated and reliable resource that educational institutions can readily adopt to address the pervasive issue of student depression.

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C : Conceptualization

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So : Software

Va : Validation

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## CONFLICT OF INTEREST STATEMENT

The author declared no potential conflict of interest for the research, authorship and or publication of this paper.

## DATA AVAILABILITY

The data that support the findings of this study are available from the corresponding author [NAI], upon request.

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