

# The effectiveness of an integrated counseling program on emotional regulation among undergraduate students with depression

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## Abstract

**Purpose** – This study investigated the effectiveness of a new counseling program integrating cognitive behavioral therapy and acceptance and commitment therapy to promote emotional regulation (ER) among undergraduate students with depression.

**Design/methodology/approach** – An interventional mixed method design was employed with the development of a qualitative method-based program using experimental and qualitative research. The sample consisted of 792 third-year undergraduate students at a public university in Bangkok. A total of 34 students with depression voluntarily enrolled and were divided into 2 groups. The 17 students in the experimental group received integrated counseling, while those in the control group received brochures. The effectiveness was evaluated using the self-assessment section on the ER scale and the Beck Depression Inventory form before and after counseling. When the program ended, qualitative research was conducted using in-depth interviews. In terms of quantitative research, the data were analyzed using one-way MANOVA and the qualitative research data used content analysis.

**Findings** – The mean scores for ER and depression in the experimental group before and after counseling were significantly different ( $p$ -value  $<0.05$ ). Results were also significantly different from the control group ( $p$ -value  $<0.05$ ). Students with depression showed improvements in ER in all six components after joining the program, including awareness, clarity, acceptance, impulse, goals and strategies.

**Originality/value** – Integrated counseling is an effective program that can increase ER and reduce depression among adolescents and can be an alternative program for depressive patients or other mood-regulating problems to promote ER.

**Keywords** Emotion regulation, Depression, Adolescents, Psychotherapy, Thailand

**Paper type** Research paper



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## Introduction

Depression is a mental health issue that affects people worldwide, particularly adolescents. A recent study reported that depression was a common mental health problem among university students [1], and its prevalence was progressively increasing. The prevalence of depression among adolescents in Thailand was at 14.9% [2]. Depression among adolescents directly negatively affects quality of life, including negative emotions such as sadness, guilt and low self-esteem [3]; loss of interest in daily activities or in activities that they once enjoyed; and a loss of concentration which negatively affected both academic performance and interpersonal relationships [1]. Depression also initiated alcohol and drug use as well as suicide attempts [4].

Previous studies reported that emotion regulation (ER) was associated with depression, and people with ER problems were unable to fully realize existing emotions and manage their negative emotions [5]. Furthermore, this population demonstrated the characteristics of emotional regulation. The use of impaired ER strategies such as avoidance, rumination and suppression was high, whereas the use of healthy strategies such as awareness, problem-solving and reappraisal was low [6]. These findings indicated that the promotion of healthy ER strategies is associated with resolving depression problems. Moreover, ER is the specific mechanism through which an individual selects the specific strategies that serve their needs when dealing with problematic issues [7]. Through applying an approach of individual counseling to promote ER, a counselor will be able to recognize and understand the issues presented by clients with a specific feature [8]. Moreover, there is scientific evidence to support the idea that psychotherapy is as effective as medication for those with depression and suitable as a first line of defense in the treatment of adolescents [9].

Cognitive behavioral therapy (CBT) and acceptance and commitment therapy (ACT) are widely used by mental health professionals, but less frequently employed by counselors. CBT may be effective in the promotion of ER and the reduction of depression (i.e. enable clients to understand distorted thoughts, undergo self-evaluation and modify their own cognitive elements and behavior). However, CBT has limitations as it is not suitable for some people who find it difficult to motivate themselves and concentrate on the process of identifying and transforming automatic thoughts or behaviors [10]. ACT may help depressive people to accept their thoughts, emotions and situations, as well as giving them an awareness of their present circumstances and their ability to respond to situations. Moreover, ACT may benefit clients who lack resilience and avoid their thoughts, feelings and behaviors using enabling strategies to accept their feelings, be prepared to face their presenting issues and manage their emotions in more effective ways [11]. As a result, the integration of both programs may be more helpful and effective in promoting ER and decreasing mood-regulation problems.

Due to the aforementioned background and the significance of the issue, the study aims to develop and investigate a new individual counseling program, derived from an assimilative integration between CBT and augmented with ACT to promote emotional regulation among adolescent university students with depression.

## Methodology

An intervention mixed methods design, with a qualitative method-based program, experimental and qualitative research [12], was conducted in two phases:

### *Phase I: develop an integrated counseling program*

An investigation of the characteristics of ER to derive its components and develop an integrated counseling program to promote ER among undergraduate students with depression with a qualitative design was carried out. The five key informants were

purposively selected. The inclusion criteria were (1) undergraduate students, (2) received treatment for depression from a psychiatrist or a psychologist and (3) currently diagnosed by a psychiatrist as having a normal level of depression without recurrent symptoms. The data collection was conducted by in-depth interviews to recheck the ER components, obtain the characteristics of emotional regulation and find ways to promote them. Then, they were used to develop the guidelines of counseling programs that utilized the concepts of CBT and ACT.

*Phase II: investigation of the effectiveness of the integrated counseling program*

A quantitative study in applying the pretest-posttest results and a comparison group design was conducted. The calculation of the sample size used  $G^*$ power 3.1 [13]. The F test was chosen in the MANOVA and assigned a power equal to 0.90. The effect size from the pilot study for the integrated counseling program on ER was equal to 0.58. The calculation resulted in a minimal sample size of 34 subjects. These samples came from a target population of 1,079 students, consisting of third-year students in the 2019 academic year from five faculties in a university in Bangkok. The undergraduate students with mild to moderate or moderate to severe depression and consent to participate in the counseling program were included to test the effectiveness of the integrated counseling program. A simple randomized technique by assignment between integrated counseling program in the experimental group and brochures on self-care practice in the control group was applied. Only 17 undergraduate students in each group were utilized to analyze the effectiveness of the counseling program. In terms of the experimental group, after completing eight sessions of individual counseling, in-depth interviews with 17 third-year students in the integrated counseling program were conducted. The information obtained was subsequently used to validate the results of the quantitative study on the effectiveness of the program.

*Research instruments*

- (1) Semi-structured in-depth interview form consisting of open-ended questions. Phase I consisted of interviews on three topics: (1) the characteristics of ER, (2) how to promote ER and (3) reflection upon the experience of the program. Phase II consisted of interviews after attending counseling in terms of gain, adaptation and emotional control of their daily lives.
- (2) The emotional regulation scale was developed from an ER literature review [6, 14] and tested content validity and reliability. It was a 1–5 scale self-report consisting of 36 items, with scores ranging from 36 to 180. It was composed of 6 subcomponents, including awareness, clarity, acceptance, impulse, goals and strategies. The index of item objective congruence (IOC) method was used to assess its content validity and tested with 100 pilot undergraduate participants. With regard to the reliability of the scale, an overall Cronbach's coefficient alpha of 0.86 was found.
- (3) The Thai version of the Beck Depression Inventory (BDI-Thai version) is the translated instrument that is generally used to assess depression in Thailand [15]. It consisted of a scale from 0 to 3, with a total of 21 items and scores ranging from 0 to 63. It was tested with the same group of 100 pilot undergraduate subjects. In terms of the reliability of the scale, an overall Cronbach's alpha coefficient of 0.85 was found.
- (4) The integrated counseling program was developed by applying an assimilative integration approach that combines various theoretical principles involving the use of a particular counseling theory combined with techniques from other counseling theories. In this way, the joint consultation process could effectively respond to the goals of the consultation [16]. CBT was used as the main theory. Meanwhile, ACT and

the information obtained from an interview on the promotion of ER in phase I were also incorporated. The IOC method, based on an expert assessment, established that the content validity of this program was 1.0. The program was tested with three pilot undergraduate participants. There were eight-session individual counseling modules, and each session lasted from 45 to 60 minutes. All of the participants received the same activities, but on different topics. Each counseling session was tailor-made, based on the problems of a particular individual, such as academic or family problems. With regard to the counseling process, each session included 3 steps: Step 1: the process of building relationships, meditation and assessing the feelings of the participants before counseling. Step 2: the counseling offered by the researcher facilitated the awareness, acceptance and clarity of the emotions of the participants. It also included changing negative automatic thoughts and finding strategies for emotional regulation. It varied in terms of the objectives of each session (Table 2). Step 3: a summary of the benefits of each session to the participants.

#### *Data analysis*

All analyses were performed by using the Statistical Package for Social Science version 23.0. The characteristics of the participants were performed in terms of frequency and percentage, while the ER and depression scores were performed using mean and standard deviation (SD). For the quantitative analysis, MANOVA was performed to compare the total ER and depression scores of the control and experimental groups, as well as comparing baseline scores with counseling scores. The differences in the score, before and after counseling, and the subcomponents of ER were also compared, with a statistical significance of 0.05. In terms of qualitative analysis, content analysis was performed to examine the qualitative data obtained for the development program and after the experiment.

#### *Ethical consideration*

This study was approved by the Institutional Review Board of Srinakharinwirot University (SWUEC/X-210/2561).

### **Results**

Phase I consisted of an investigation of the characteristics of ER to derive its components from the theories of CBT and ACT. An integrated counseling program was developed from in-depth interviews with 5 university students, diagnosed by a psychiatrist as having a normal level of depression, without recurrent symptoms (Table 1).

Based on the information obtained from the in-depth interviews which fulfill the component of emotional regulation, the guidelines for the development of the integrated counseling program detail are shown in Table 2. This counseling program was composed of each of the session topics: objectives, components and techniques combining CBT and ACT theories, procedures and obtaining information.

The results of Phase II revealed the effectiveness of the integrated counseling program and information as described below, step-by-step:

Firstly, the baseline ER and depression measurements were evaluated in this study with a target population of 1,079 third-year students in the 2019 academic year from five faculties in a university in Bangkok. The participation rate was 73.40% (792/1,079). The general information about the background of the study population and their level of depression was classified by the BDI-Thai version for the third-year undergraduate students shown in Table 3.

**Table 1.**  
ER components and a  
number of key  
informants, stating the  
extract from the  
content analysis

Components	Number of key informants stating ( <i>n</i> = 5)	Example of quotation
Awareness	3	“Typically, when I am angry, I try to forget about that. But, when I get angry, I am aware that I am being angry. And then, I find out what makes me angry”
Clarity	2	“At that time, it felt really bad. Like everywhere was dark. But, when I tried to be mindful, I would say ‘No, that’s not right. There is a way out.’ Once we’re able to acknowledge that, we understand things clearer
Acceptance	4	“For me, I think bad things happen to everyone in general. But, for people who have depression, like me, it’s like we’re more vulnerable than others”
Impulse	3	“So, if I continue to talk and I start to feel irritated, I’ll try to avoid it, to walk away and let myself cool down first. And then, come back to talk again tomorrow”
Goal	3	“Like I’ve set what I’ll do each day and finish it one by one. Typically, we overthink. I have what I need to do next, it’s like I have goals. It’s O.K, don’t have to spend time doing anything else, I don’t waste time thinking about anything else”
Strategies	5	“Actually, it’s up to the situation and problem I face. For some situations, I need a break first, to cool down and then talk. But for some, I have to go on with the talk and finish it, so I won’t sleep on it”

Secondly, of a total of 792 respondents, only 124 university students with mild to moderate or moderate to severe depression met the inclusion criteria. In Phase II, only 42 participants were accepted to participate in this study to promote their ER. After the simple randomization process, 20 university students were enrolled in the experimental group and 22 university students were enrolled in the control group. Due to discontinuing counseling or non-response during follow-up, only 17 university students in either group were able to utilize the analysis in this study. The participation rates in the experimental group and the control groups were 85% and 77%, respectively. The details on the provenance of the samples in this study are shown in Figure 1. There were no significant differences in the baseline depression scores between the accepted intervention and refused intervention subjects in both groups.

For the experimental group, the majority were female (14/17, 82.35%) and the rest were males (3/17, 17.65%). The age of participants was 21 (9/17, 52, 94%), 20 (6/17, 35.29%) and 22 (2/17, 11.77%). Over half of the participants studied in the social sciences (52.94%), while slightly less than half of the participants studied science and technology (47.06%). In the control group, the majority were female (13/17, 76.47%), which was the same as the experimental group, and the rest were males (4/17, 23.53%). The ages of participants were 21 (9/17, 52.94%), 20 (5/17, 29.41%) and 22 (3/17, 17.65%). Five out of the seventeen participants (29.41%) studied the social sciences, and twelve out of seventeen participants (70.59%) studied science and technology. None of the demographic data from either the experimental group or the control group differed at a statistically significant level.

Thirdly, the results on comparing the mean score for ER and depression in the experimental group at the baseline and after counseling are shown in Table 4. The post-counseling mean score of ER increased, while depression decreased. Both scores in the experimental group differed in terms of statistically significant baseline scores. The multivariate testing showed that different stages of experimentation significantly contributed to the mean scores for ER and depression (Wilk’s lambda = 0.051, *F* = 139.388, *p*-value <0.001, Partial  $\eta^2$  = 0.949).

Session/Topic	Objective/ Component	Technique	Procedure	Obtained information	Activities
1) Relationship building	To create relationships and clarify objectives	Basic counseling skills	(1) Build a relationship (2) Clarify steps in engaging in the program (3) Keep a diary	(1) General information (2) Open-mindedness	(1) Build a relationship (2) Understand the terms of participation in the program
2) Realizing the nature of emotions	Awareness of emotions <sup>1</sup> and understanding the relationship between emotions, thoughts and behaviors <sup>2</sup>	(1) Identifying emotions* (2) Rating emotions* (3) Cognitive diffusion** (4) Being present**	(1) Practice meditation (2) Relationship between emotions, thoughts and behaviors	(1) Practicing meditation (2) Keeping a diary	(1) Build a relationship (2) Meditation (3) Learning about the changes associated with emotions, thoughts and behaviors
3) Understanding and accepting emotions and thoughts	Understand and accept emotions <sup>3</sup> and learn about automatic thoughts	(1) Teaching* (2) Acceptance** (3) Reflection of feelings	(1) Provide knowledge about emotions and automatic thoughts (2) Acknowledge thoughts and emotions without judgment	(1) talking to others	(1) Build a relationship (2) Meditation (3) Learning about automatic negative thoughts
4) Tracking thoughts	Identify and understand automatic thoughts <sup>1, 2, 3</sup>	(1) Automatic thoughts* (2) Socratic questions*	(1) Weigh up the pros and cons of automatic thoughts	(1) Keeping a diary	(1) Build a relationship (2) Meditation (3) Identify the negative automatic thoughts that affect emotions
5) Testing the validity of thoughts	Modify thoughts and reach solutions <sup>2, 3</sup>	(1) Evaluating thoughts* (2) Acting 'as if'*** (3) Socratic questions* (4) Problem-solving*	(1) Consider whether or not there is any evidence supporting change or to come up with a solution	(1) Changing thoughts	(1) Build a relationship (2) Meditation (3) Practice changing negative automatic thoughts

(continued)

**Table 2.**  
Guidelines for the development of the integrated counseling program and obtaining information

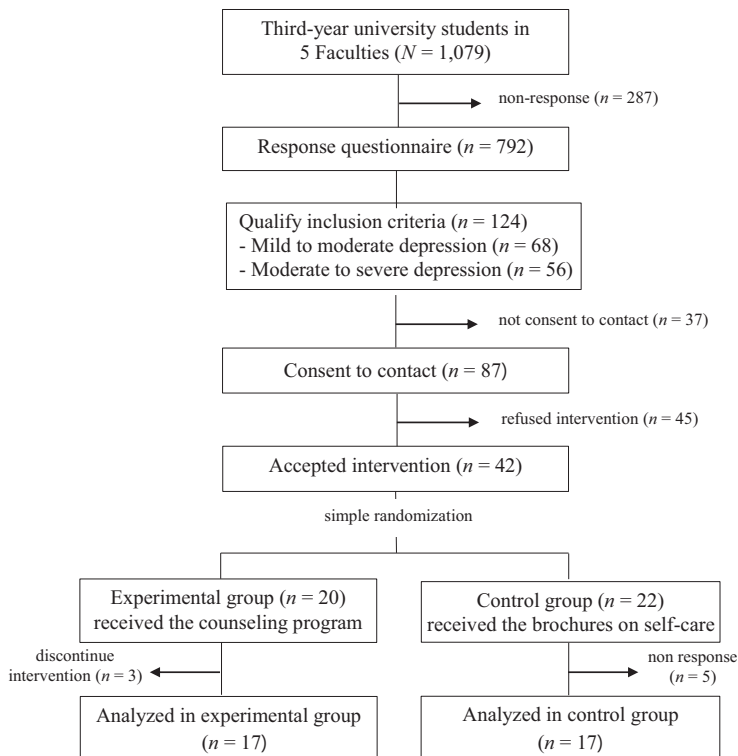
Session/Topic	Objective/ Component	Technique	Procedure	Obtained information	Activities
6)–7) Setting goals and making commitments	Set goals and implement strategies effectively <sup>4, 5, 6</sup>	(1) Goal-setting* (2) Committed action**	(1) Reflect on the situations influencing the emotions one wants to change (2) Set emotion regulation goals	(1) Setting learning goals (2) Exercising (3) Doing activities that one finds interesting	(1) Build a relationship (2) Meditation (3) Set emotion regulation goals and practice
8) Being well-prepared for emotion regulation	Apply strategies in daily life <sup>4, 5, 6</sup>	(1) Paraphrasing (2) Summarizing (3) Affirmation	(1) Review learned information and ask questions about the program	(1) Current ER situation	(1) Build a relationship (2) Meditation (3) Summary of learned emotional regulation strategies

**Note(s):** - Components: <sup>1</sup>awareness, <sup>2</sup>clarity, <sup>3</sup>acceptance, <sup>4</sup>impulse, <sup>5</sup>goal, <sup>6</sup>strategies  
-Theories: \*CBT \*\*ACT

General characteristics	<i>N</i> = 792	%	Effectiveness of an integrated counseling program
<i>Sex</i>			
Male	276	34.85	
Female	516	65.15	
<i>Major study area</i>			
Social sciences	314	39.65	
Science and technology	478	60.35	
<i>Level of depression</i>			
Normal	424	53.53	
Mild	225	28.41	
Mild to moderate	68	8.59	
Moderate to severe	56	7.07	
Severe	19	2.40	

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**Table 3.** General characteristics and the prevalence of depression at each level of the study population



**Figure 1.** Flow diagram of the enrollment of subjects, allocation to the counseling program and disposition status in Phase II of this study

Outcome	Before counseling		After counseling		<i>F</i>	<i>p</i> -value	Partial $\eta^2$
	Mean	SD	Mean	SD			
Emotion regulation	108.41	19.95	126.88	15.43	52.64	0.01	0.77
Depression	25.06	3.80	18.41	2.65	207.63	<0.001	0.93

**Table 4.** The differences in the ER and depressive mean scores between before and after counseling in the experiment group (*n* = 17)



Finally, a comparison of the post-counseling ER and the depression mean score of the experimental group and the control group is shown in Table 5. There were no differences between the baseline scores. The post-counseling mean scores of both ER and depression in the experimental group demonstrated statistically significant differences compared to the control group. Multivariate testing showed that there was a significant effect of ER and depression mean scores (Wilk's lambda = 0.782  $F = 4.322$ ,  $p$ -value = 0.02, partial  $\eta^2 = 0.218$ ). When stratified by each subcomponent of ER, all of the subcomponents in the experimental group increased in one direction, while the control group changed in more than one direction. The difference in scores between pre-and post-counseling of each ER subcomponent and depression also revealed statistically significant differences in the experimental group and the control groups with  $p < 0.001$  (Table 5).

The results of the qualitative study after counseling in the experimental group involved in-depth interviews with the participants conducted to facilitate reflection on their experience of the integrated counseling program and adapting it to their daily lives. They were presented in relation to cover the effectiveness of each activity, as follows:

- (1) Emotional awareness activities consisted of practicing meditation and connecting emotions, thoughts and behaviors. The activity contributed to improved awareness and emotional clarity.

Meditation makes me not distracted. Sometimes I have a lot of things in my head all the time that I can't sleep. Meditation can help me stop the thoughts that make me sad and worry. It helps me feel better and sleep easier. (B)

The active understanding and acceptance of emotions consisted of learning about one's thoughts, keeping a diary and understanding one's own emotions. The activity-induced emotional acceptance and ER strategies.

Tried to write in my diary every day. When I handed it in to you, I could review and understand my thoughts and emotions every day. Sometimes, when I went back to read it, I found it funny. I didn't understand why I thought like that. But I could see more of me. Whatever we did, and it's not O.K for us, then try to stop it. Feel more chilled out. (J)

- (2) Tracking thoughts activity consisted of reflecting on automatic thoughts and changing these thoughts. The activity generated understanding, acceptance and ER strategies.

Outcome	Experimental group ( $n = 17$ )		Control group ( $n = 17$ )		$F$	$p$ -value	Partial $\eta^2$
	Mean	SD	Mean	SD			
<i>Emotion regulation score</i>							
–After counseling period	126.88	15.43	115.41	16.16	4.48	0.04	0.12
–Differences in scores							
–Total	18.47	6.80	–0.12	1.32	122.37	<0.001	0.79
–Awareness	1.65	1.93	–0.71	2.02	12.01	<0.001	0.27
–Clarity	3.53	2.92	0.92	2.44	12.28	<0.001	0.28
–Acceptance	4.82	2.70	1.00	2.35	19.45	<0.001	0.38
–Impulse	1.76	1.89	–1.71	3.35	13.85	<0.001	0.30
–Goal	4.94	2.41	1.88	2.93	11.03	<0.001	0.26
–Strategies	1.76	2.91	–0.88	1.50	11.16	<0.001	0.26
<i>Depression score</i>							
–After counseling period	18.41	2.65	20.76	2.17	8.05	0.01	0.20
–Differences in scores	6.65	1.90	3.18	1.42	36.26	<0.001	0.53

**Table 5.** The different ER and depressive mean scores in the experimental group and the control group

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Trying to change the thought which was not OK, that occurred, helped make things easier to understand, worry less. Like, when feeling bad about the cat, thought that if we took better care of it, it wouldn't die. But in the end, there's nothing we can do, right? From now on, I will take good care of their kittens. (E)

- (3) Testing the validity of thoughts activity consisted of finding evidence to support a change in thought patterns or problem-solving methods. The activity generated understanding, acceptance and ER strategies.

It's like asking myself when facing the situation that makes me feel bad such as the presentation. At the moment, I cannot manage it well yet. The thought just comes right away 'Why me?', 'Me again!' 'Just me again!' Anyway, try to stop these thoughts first. And then asked myself 'Did it happen to me only?', 'No, it didn't, it happens to others as well.' Then, it was better, slow down, and didn't make a scene like before. (F)

- (4) Setting goals and commitment activities consisted of setting goals and tactics for regulating emotions. This activity encouraged the control of impulsive behaviors, commitment to target behaviors and access to ER strategies.

When I feel very sad, I don't want to do anything, just need to sleep and don't want to see anyone, but when I have a plan to do something, it helps me to know what to do, and when I'm forced to follow it wasn't a success, as planned, but I feel it's OK I can do that to give me encouragement and if I can do everything to plan and makes me feel very happy. (A)

## Discussion

Depression is a major mental health concern for adolescents in the transition between childhood and adulthood, particularly among university students. ER is an important method to enhance mood and decrease the problem of depression. The characteristics of emotion regulation among undergraduate students consisted of six components. This is consistent with several studies [14] on the components of ER: awareness – the acknowledgment of existing emotions; acceptance – the acceptance of unwanted negative emotions; clarity – the clear understanding of existing emotions; impulse – the ability to regulate behavior and respond appropriately to the situations; goal – the determination to work toward a goal; and strategies – the possession of effective approaches to properly deal with existing emotions. These components were used as important guidelines for developing the integrated counseling program employed in this study. An assimilative integration approach was used to combine the main theory of CBT with ACT in the development of the program.

In terms of effectiveness testing, the results of the quantitative and qualitative studies revealed a positive effect. The post-counseling mean scores for ER increased, while depression decreased in the experimental group and also differed significantly from the control group. This effectiveness program described the application of CBT in integrated counseling; the clients are provided with opportunities to search for their negative automatic thoughts and change them, which leads to behavioral changes or the discovery of suitable solutions to their own issues [17]. The activity on "testing the validity of thoughts" applied the CBT technique of cognitive change to enable clients to understand, accept and learn ER strategies. Additionally, previous studies comparing ER strategies, including cognitive reappraisal and emotional acceptance, revealed that both strategies significantly contributed to the reduction of negative emotions and avoidance behaviors. The technique of cognitive reappraisal was used to modulate the perceptions of individuals to obtain new perspectives in a way that is consistent with real-life situations [18], and it has a protective influence on relapse symptoms among depression or anxiety patients [5]. The results were also consistent with the study of cognitive behavior therapy on treating depression in adolescents by using

cognitive change techniques that proved to be effective in reducing depressive symptoms among adolescents [19].

Additional techniques drawn from ACT also encouraged clients to accept the situations and the emotions they faced, resulting in the acceptance of their own thoughts and emotions, as well as being committed to their target behaviors [20]. The ACT techniques (i.e. meditation and being present) were coupled with CBT techniques (i.e. understanding of the relationship between emotions, thoughts and behaviors, which was included in the activity on 'Realizing of the nature of emotions'), fostering awareness, acceptance and emotional clarity. This is consistent with previous studies and the discovery that meditation practice for monitoring and accepting emotions contributed to the improvement of emotions, feelings and behaviors [21]. Moreover, previous studies were also effective in reducing depression among university students [22].

In addition, the activity of understanding and accepting emotions or applying acceptance and identifying automatic thought techniques generated emotional acceptance of ER strategies, in line with the research reporting that emotional acceptance strategies effectively promoted ER [23]. The activity of "tracking thoughts" applied to the identification of the automatic thought techniques of CBT to promote the understanding and acceptance of emotions, as well as learning about ER strategies. Additionally, negative automatic thoughts predicted difficulties in ER [24], and deficits in cognitive control are related to the use of maladaptive ER strategies [5]. Thus, facilitating individuals to identify their negative automatic thoughts and subsequently change them enables them to access better ER strategies. The activity of "setting goals" must be applied with the committed action technique of ACT, which contributes to the control of impulsive behaviors, commitment to target behaviors and access to ER strategies. This is consistent with a previous study claiming that goal management training effectively promoted ER skills for daily life [25].

These results confirmed that the integrated counseling program effectively promoted ER among undergraduate students, in line with the objective of assimilative integration. The ACT techniques were incorporated to assist in serving the purpose of the CBT counseling approach and to increase its effectiveness in modifying thoughts and behaviors [16]. Depression is a common and costly problem. Affordable, accessible and innovative interventions should be developed, evaluated and made available to improve the lives of those affected by it. The results also revealed that the majority of participants with moderate to severe depression had diminished levels of after-engagement in the program. Moreover, one of the benefits of this counseling program is that medication is not necessary and there are no adverse drug effects to interfere in their daily life. Accordingly, counselors can expand this program further and counsel adolescents and other groups with emotional regulation difficulties, such as those with an anxiety disorder or borderline personality disorder. However, this study still has some limitations due to the small sample size. The interpretation and generalization of the results require some precautions. In addition, the results only reported the cross-sectional relationship between ER and depression, and not the temporal relationship. Thus, future studies should investigate the causal relationship between these two constructs to obtain more clarity on the effects of ER on depression which may help to refine treatment approaches for those with depression. Depression is a common mental health problem among university students, so the relevant authorities should screen students with depression and offer to counsel them for their mental well-being or for managing difficulties with emotion regulation at university.

### **Conclusion**

Integrated individual counseling which employs assimilative CBT, and augmented with ACT, it is an effective program that can increase ER and reduce depression in adolescents,

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particularly in university students. It is an alternative program for counselors to use with depressive patients or those with other mood-regulation problems to promote emotional regulation.

Conflict of Interest: None

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