

## **Brief-Acceptance and Commitment Therapy in a Group of Young Adult Women with Emotional Eating**

Talitha Sya'banah Fajrin Sudana<sup>a</sup> and Dini Rahma Bintari<sup>b</sup>

*<sup>a</sup>Faculty of Psychology, Universitas Indonesia, Depok, Indonesia; <sup>b</sup>Department of Clinical Psychology, Faculty of Psychology, Universitas Indonesia, Depok, Indonesia*

\*Corresponding author:

Dini Rahma Bintari

Department of Clinical Psychology

Faculty of Psychology, Universitas Indonesia

Jl. Lkr. Kampus Raya, Depok, Jawa Barat

Indonesia, 16424

Tel.: +62 217270004

Email address: [dini.rahma@ui.ac.id](mailto:dini.rahma@ui.ac.id)

## Brief-Acceptance and Commitment Therapy in a Group of Young Adult Women with Emotional Eating

**Abstract--** A dietary habit online survey in July 2017 revealed that more than half the participants ate when they experienced negative emotions. Emotional eating is overeating or binge eating in response to a negative mood, in particular, anger, sadness, and anxiety. Individuals with this condition eat to alleviate negative feelings or distract them from experiencing such. Emotional eating can lead to obesity and various eating disorders. Emotional eating also occurs mostly among women. Acceptance and Commitment Therapy (ACT) is a novel treatment for emotional eating. The purpose of ACT is to decrease experiential and emotional avoidance through acceptance and to increase behavior change. The purpose of the present study was to examine the effect of Brief-ACT techniques in an effort to reduce the level of emotional eating. Five young adult women participated in four group sessions, a week apart, of Brief-ACT. The participants completed the Emotional Eating scale (EES) and Eating Attitude Test (EAT-26) before and after the intervention. The results revealed the participants ate to escape from a negative mood, felt guilty about their eating behaviors, and were inconvenienced by their obesity and appearance. The result of the pre- and post-tests showed that more than half of the participants recovered from emotional eating after Brief-ACT. However, two participants' EES score increased, possibly because they became more conscious about their feelings as a result of the many mindful techniques used in Brief-ACT.

Keyword: Emotional Eating, Women, Brief – ACT, Group.

### Introduction

Emotional eating or eating because of an emotional condition has most often been defined as overeating or binge eating in response to a negative mood state (Ganley, 1989; Nguyen et al., 2009; Ricca et al, 2012; Waller & Osman, 1998 as cited in Berbette, 2015). This overeating in response to negative affect serves the function of alleviating negative feelings or distracting individuals from the particular negative emotions they are experiencing at that time (Stice & Agras, 1998 as cited in Berbette, 2015). The negative emotions that are believed to lead to this eating behavior include anger, sadness, and anxiety (Arnou, Kenardy, & Agras, 1995 as cited in Berbette 2015).

Individuals with emotional eating tend to overeat and continue eating even though they do not feel hungry. Thus, this may lead to weight gain. Emotional eating is a risk factor for obesity, binge eating disorder (BED) and other eating disorders (Nguyen et al., 2007; Pinaquy et al., 2003; Stice et al., 2002; Ricca et al., 2012 as cited in Berbette, 2015). It is important to help young women with emotional eating before their eating problem becomes more severe. Emotional eating occurs mostly among females. Males, on the contrary, often eat in response to confusion rather than a negative mood. Consequently, they were excluded from the present study.

### ***Brief Acceptance and Commitment Therapy (Brief – ACT)***

ACT has been shown to be an effective treatment for many different types of individuals and disorders. Although ACT has often been used for individual treatment, research has shown that it can also be an effective method for group intervention (Berbette, 2015). ACT targets six sources of psychological inflexibility by means of six core processes: Being present; using the self as a context; value, committed action; acceptance; and cognitive defusion. ACT increases client acceptance, which can be useful for individuals with a variety of disordered eating symptoms. Furthermore, ACT encourages individuals to accept feelings they are unable to control.

ACT is a novel treatment for emotional eating. The purpose of ACT is to decrease experiential and emotional avoidance through acceptance and to increase engagement in behavior change. Emotional eating, which is regarded as a deviant behavior, is expected to decrease after a Brief-ACT session. The purpose of the present study was to examine the effects of Brief-ACT techniques as a psychological treatment utilized to reduce the level of emotional eating. We assumed that Brief-ACT could be employed to reduce emotional eating behavior because one of the purposes of ACT is to decrease emotional avoidance. Individuals who accept their emotional condition no longer need to engage in emotional eating as a way to distract or alleviate their negative emotions.

## **Methods**

### ***Study Design***

The present study used a one group pre-test and post-test design. The participants were treated as one group. A pre-test was administered before Brief-ACT and a post-test after it. The different scores of the Emotional Eating scale (EES), which indicated a decrease in participants' emotional eating levels, were used to determine the success of the intervention.

### ***Brief – ACT Module***

This intervention program was based on previous study conducted by Berbette (2015) that employed Pearson Heffner and Folette's Brief-ACT module (2010). The module was translated in Bahasa Indonesia. Furthermore, adjustments such as modifying the time of the sessions were made. In the Pearson module, Brief-ACT conducted in a day for eight hours was modified to four sessions that lasted approximately 90 minutes each across three days, a week apart.

#### **Session 1 – Know Yourself Better**

Opening; explanation of the purpose of the therapy, namely, disordered eating and Brief-ACT; introduction of the facilitator and participants; icebreaker. Sub-session 1: Relate story about facing pain and give participants the opportunity to share their experiences of emotional eating. Sub-session 2: Mind-to-body and body-to mind letter. Sub-session 3: How long have you been struggling. Break.

### Session 2 – Choose

Icebreaker; Sub-session 1: Things you would like to control and cannot control; Sub-session 2: Willingness–Tug-of-war metaphor; Sub-session 3: Mindful breathing; Closing sessions 1 and 2; Homework: ABC about thoughts.

### Session 3 – Mindfulness and Acceptance

Review of last session; review of homework; Sub-session 1: Mindful breathing, icebreaker; Sub-session 2: Mindful tough; Sub-session 3: Mindful emotion; Sub-session 4: Mindful mirror; Sub-session 5: Mindful physical sensation; Sub-session 6: Mindful eating; Closing session 3; Homework: Mindful practice at home.

### Session 4 – Accept and Take Action

Review of previous session; Review of homework; Icebreaker; Sub-session 1: Mindful mirror; Sub-session 2: Mindful eating; Sub-session 3: Goals and values; Sub-session 4: Body in relationship; Sub-session 5: Commitment; Closing session 4.

### *Participants*

The researcher used the database from a previous dietary habit online survey to search for potential participants. By employing convenience sampling, the researcher contacted potential participants and asked if they would be willing to participate in this quasi-experimental study. They were all informed about the length of the intervention, the core of the sessions and assured that they would be allowed to withdraw from this intervention at any time. The sample included five young adult females from Indonesia who self-identified as emotional eaters. They were asked if they were willing to participate in this study and signed an informed consent form. All the participants completed a pre-test as a baseline measurement; this was followed by four sessions Brief-ACT, which have previously been outlined. At the end of last session, all the participants completed the post-test and were given a snack and drink as a reward.

### **Measurement**

#### *Emotional Eating Scale (EES)*

The EES consists of 25 items in which a participant has to assess a list of emotions on a five-point Likert-type scale with the following options: No desire to eat; a small desire to eat, a moderate desire to eat, a strong desire to eat, and an overwhelming urge to eat. Furthermore, the EES consists of three subscales, namely, angry/frustrated, sadness, and anxiety. The total score indicates the participant's emotional eating level; a higher score indicates a higher emotional eating level. The reliability of the EES is 0.94 (Dogan, Tekin, & Katrancioğlu, 2011). The translation of the EES to Bahasa Indonesia passed a legibility test and was reviewed by specialists in the field.

#### *Eating Attitude Test (EAT-26)*

The Eating Attitude Test comprises three parts. Part A consists of demographic information. The information provided in Part A can be used to measure Body Mass Index (BMI). Part B consists of 26 items that participants assess on a six-point Likert scale: The options include

always, usually, often, sometimes, rarely, and never to measure a participant’s attitude toward food. Part C comprises five items assessed on a six-point Likert scale: Options include never, two-three times a month, once a month or less, two-six times a week, once a week, and once a day or more. Part C can be employed to assess a participant’s potential to develop an eating disorder. EAT-26 was translated to Bahasa Indonesia; it passed a legibility test and was reviewed by an expert.

**Results**

The demographic information of the five participants is presented in Table I.

Table I. Demographic Information of Participants

<b>Participant</b>	<b>Age</b>	<b>Education</b>	<b>Score Part A EAT-26</b>	<b>BMI</b>
D	21	High School	26.13	Overweight
U	25	Bachelor Degree	15.82	Underweight
N	21	High School	24.91	Normal
K	26	Bachelor Degree	26.45	Overweight
R	25	Bachelor Degree	26.56	Overweight

Brief-ACT was implemented in four sessions across three days, a week apart. The following themes emerged: Eating to escape from a negative mood; guilt about their eating behavior; and effects of overeating such as the inconvenience associated with their appearance and obesity. The different scores obtained for the pre- and post-test of the EES are presented in Table II.

Table II. Emotional Eating Measurement

<b>Participant</b>	<b>EES Pre</b>	<b>EES Post</b>	<b>Prominent emotion (score 3 and 4)</b>	
D	46	50	discouraged, shaky, excited, jittery, lonely, bored.	excited, irritated, lonely, furious, confused, nervous, angry, bored.
U	57	46	resentful, discouraged, shaky, excited, jealous, worried, frustrated, angry, upset.	excited, sad, lonely, furious, angry, bored.
N	51	41	discouraged, worn out, depressed, jittery, worried, lonely, on edge, nervous, bored.	discouraged, worn out, jittery, sad, uneasy, lonely, bored,
K	32	43	excited, jittery.	-
R	76	70	resentful, discouraged, worn out, excited, jittery, sad, uneasy, jealous, worried, frustrated, lonely, on edge, confused, angry, bored, upset.	resentful, discouraged, shaky, worn out, inadequate, sad, uneasy, irritated, worried, frustrated, lonely, furious, on edge, confused, nervous, guilty, bored, helpless, upset.

Emotional eating measured by the EES has three levels. The first level (score of 0–25) reveals that the participant has a healthy relation with food. The second level (yellow light) shows that the participant uses food to manage their emotions; this may affect their quality of life. The third level (red light) reveals that the participant relies on food significantly to manage their emotions; furthermore, their health may be at risk. Three participants (U, N, and R) showed a decreased level of emotional eating after participating in Brief-ACT. Two participants' EES score increased after the intervention; D by four points and K by 11 points. However, both remained on the second level of emotional eating. It may be assumed that D became more aware about her feelings associated with her urge to eat because many techniques used in this intervention involved mindfulness. Even though K increased her score for EES, there was no sign of any prominent emotion that lead to her urge to eat. The researcher offered to refer R to a psychologist because although her score indicated a decrease in emotional eating, she remained on the third level.

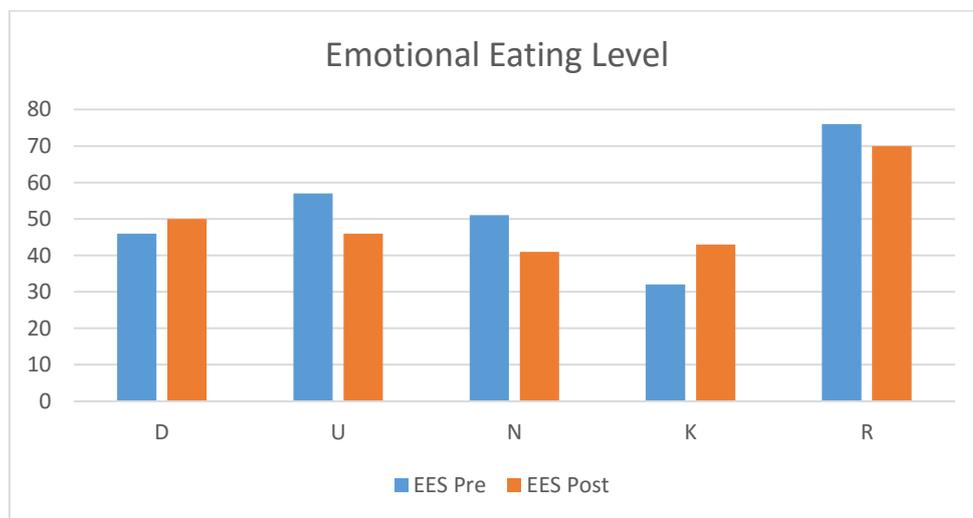


Fig. 1. Emotional Eating Level

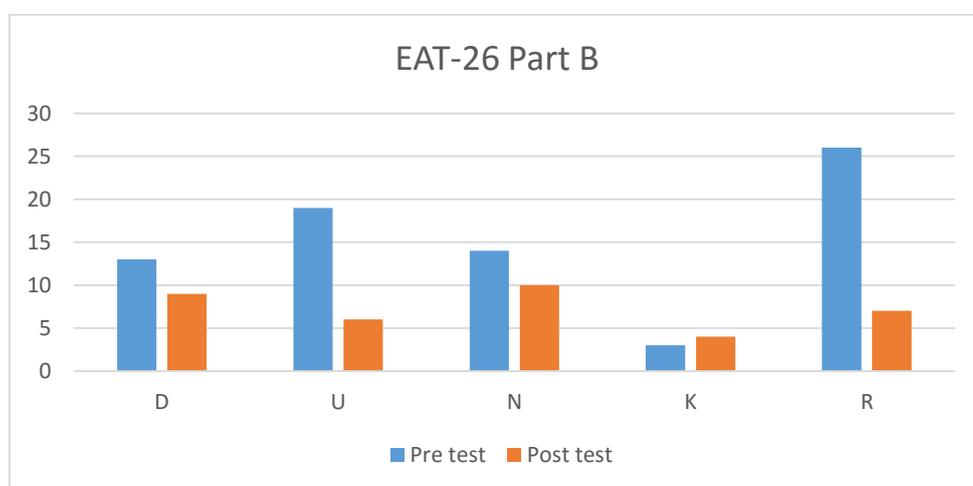


Fig. 2. EAT-26 Measurement; Attitudes toward food

Scores from part B of EAT-26 revealed the participants had a decrease in negative attitude toward food; consequently, the participants no longer treated food negatively. The latter

included eating food quickly and spending a great deal of time thinking about food. The results of part C revealed that none of the participants had an eating disorder.

The results of the study demonstrated most participants had a decrease in the EES and EAT-26 scores after Brief-ACT. The total EES score decreased from 262 to 250 while that of EAT-26 decreased from 75 to 36. One can conclude that their level of emotional eating decreased and their attitude toward food became more positive. The EES revealed the three most prominent emotions that led to the participants wanting to eat at the pre-test were feeling discouraged, excited, and jittery whereas at the pre-test, loneliness and boredom were the most prominent.

## **Discussion and Conclusion**

The current study sought to investigate the effectiveness of four sessions of Brief-ACT in a group of young women with emotional eating. For most, the level of emotional eating decreased at post-treatment. Although two participants' EES scores increased at post-treatment, they remained on the same level of emotional eating before Brief-ACT. As noted previously, the researcher recommended one participant consult with a psychologist.

In the sessions of mindful eating, participant R was unable to control her urge to eat fast. She stated that she was unable to do mindful eating while the four other participants engaged in the exercise in accordance with the therapist's guide. The therapist allowed R to observe, who also felt incapable of engaging in the activity at home. Although R demonstrated a decrease in emotional eating, she remained on the third level. It is imperative that therapists do not force participants to take part in sessions with which they are not comfortable. They may, however, be more comfortable with individual sessions.

The current study adds to a growing body of literature that has suggested that psychological interventions such as Brief-ACT can be applied in a group. Furthermore, the results revealed that Brief-ACT can help young adult women to reduce their emotional eating level.

As noted previously, the intervention was based on a previous study conducted Berbette (2015) that employed Pearson's (2010) module.

Pearson's (2010) module was used for the following reasons:

- The researcher could not access Berbette's (2015) complete module.
- Berbette (2015) referred to Pearson's (2010) use of ACT as an intervention method for disordered eating behaviors.
- Much literature refers to disordered eating behavior such as binge eating as emotional eating.
- Emotional eating is overeating behavior that people use to cope with their negative emotions. The main purpose of Pearson et al.'s module (2010) is to allow the client or participant a choice to either approach or avoid difficult feelings in the future. Clients acquire skills to identify and approach difficult feelings. Consequently, they will not avoid negative feelings by overeating.

- The purpose of the module is to increase normal eating behavior patterns in response to a client or participant's hunger level and thus, decrease the pattern of negative emotional experiences, which they associated with food.

This study was limited because the emotional eating measurements relied on self-reported eating behavior. It is recommended that future research measure emotional eating objectively, for example, the researcher could observe the daily eating behavior of participants or alternatively, the participants could keep a daily food journal. A further limitation is the therapist was not yet certified to conduct Brief-ACT; consequently, some of the results may have been affected by this limitation. However, in essence, this study revealed that Brief-ACT techniques may be used as a psychological intervention to help young women to reduce their level of emotional eating.

## **Acknowledgments**

This study was supported by Lembaga Pengelola Dana Pendidikan (LPDP) Ministry of Finance Republic of Indonesia. Funding was provided through first author scholarship for Magister Program in Faculty of Psychology, Universitas Indonesia.

## **References**

- Arnow, B., Kenardy, J., & Agras, W. S. (1995). The emotional eating scale: The development of a measure to assess coping with negative affect by eating. *International Journal of Eating Disorder, 18*(1), 79-90
- Bennett, J. T. (2011). *Perceptions of emotional eating behavior: A qualitative study* (Master thesis). University of Rhode Island, Rhode Island.
- Berbette, B. J. (2015). *An acceptance and commitment therapy group workshop intervention for emotional eating* (Doctoral dissertation). Saint Louis University, Missouri.
- Braden, A., Flatt, S. W., Boutelle, K. N., Strong, D., Sherwood, N. E., & Rock, C. L. (2016). Emotional eating is associated with weight loss success among adults enrolled in a weight loss program. *Journal of Behavioral Medicine, 39*(4), 727-732.
- Chamberlin, A. A. (2015). *Academic-related factors and emotional eating in adolescents* (Master thesis). California State University, San Bernadino.
- Chapple, R. V. (2012). *The role of ethnic differences in body dissatisfaction, emotional eating, and intrinsic religiousness among college-aged women* (Doctoral dissertation). Fuller Theological Seminary, California.
- Close, J. (2013). *Women's experiences of comfort eating: An interpretative phenomenological analysis* (Doctoral Thesis). University of Leicester, Leicester.
- Dogan, Tayfun., Tekin, E.G., & Katrancioğlu, A. (2011). *Feeding your feelings: A self-report measure of emotional eating*. Turkey: Procedia.
- Foran, A. I. (2015). *Managing emotions through eating* (Doctoral Thesis). The City University, London.
- Ford, T. M. (2012). *Emotional eating behaviors and negative food relationships among the overweight and obese* (Doctoral dissertation). Walden University, Minnesota.
- Hernandez-Hons, A., & Woolley, S. R. (2012). Women's experiences with emotional eating and related attachment and sociocultural processes. *Journal of Marital and Family Therapy, 38*(4), 589-603.
- Jinks, M. (2016). *Regulating eating through acceptance and commitment therapy (react): A single case experimental design to evaluate a guided self-help intervention for individuals who are overweight or obese and engage in emotional eating* (Doctoral thesis). University of Lincoln, Lincolnshire, UK.
- Juarascio, A., Shaw, J., Forman, E., Timko, C. A., Herbert, J., Butryn, M., ... & Lowe, M. (2013). Acceptance and commitment therapy as a novel treatment for eating disorders: an initial test of efficacy and mediation. *Behavior modification, 37*(4), 459-489.

- Kelly, M. C. (2016). *Development and evaluation of a novel Internet-based guided self-help intervention for the reduction of emotional eating* (Doctoral dissertation). University of Hawai'i, Manoa, Hawaii.
- Klump, K. L., Keel, P. K., Racine, S. E., Burt, S. A., Neale, M., Sisk, C. L ... Hu, J. Y. (2013). The interactive effects of estrogen and progesterone on changes in emotional eating across the menstrual cycle. *Journal of Abnormal Psychology, 122*(1), 131-137.
- Koball, A. M., Meers, M. R., Storfer-Isser, A., Domoff, S. E., & Musher-Eizenman, D. (2012). Eating when bored: Revision of the emotional eating scale with a focus on boredom. *Health Psychology, 31*(4), 521-524.
- Kornfeld, S. H. (2016). *Longitudinal effects of emotional eating on metabolic health: Are some women more vulnerable than others?* (Doctoral dissertation). Alliant International University, San Diego
- Kumar, R. (1999). *Research Methodology: A Step by Step Guide for Beginners*. London: SAGE Publication.
- Pearson, A. N., Heffner, M., & Follette, V. M. (2010). *Acceptance and Commitment Therapy for Body Image Dissatisfaction: A Practitioner's Guide to Using Mindfulness, Acceptance and Values-based Behavior Change Strategies*. Oakland, CA: New Harbinger Publications.
- Pochop, J. A. (2011). *Acceptance and commitment group therapy for older women with chronic pain* (Master project). Saint Mary's College of California, California
- Roer, S., Latzer, Y., & Geliebter, A., (2014). Negative emotional eating among obese individuals with and without binge eating behavior and night eating syndrome. *The Israel Journal of Psychiatry and Related Sciences, 51*(3), 219-225. Retrieved from <https://search.proquest.com/docview/1777659426?accountid=17242>
- Sevinçer, G. M., & Konuk, N. (2013). Emotional eating. *Journal of Mood Disorders, 3*(4), 171. doi: <http://dx.doi.org/10.5455/jmood.20130926052526>
- Sharpe, E. (2016). *Attention, emotion processing and eating-related psychopathology* (Doctoral thesis). Loughborough University, Loughborough, UK.
- Young, D. A. (2016). *Emotional eating, stress, and coping styles in early adolescence* (Doctoral dissertation). Baylor University, Texas.
- Young, S. K. (2010). *Promoting healthy eating among college women: Effectiveness of an intuitive eating intervention* (Doctoral dissertation). Iowa State University, Iowa.