

Dialectical Behavior Therapy for Reducing Emotional Eating in Emerging Adult Women

Chrissamary Husodo, Monique Elizabeth Sukamto*


Universitas Surabaya, Indonesia

 monique@staff.ubaya.ac.id*

Submitted:
2024-08-08

Published:
2024-09-01

Keywords:
Dialectical Behavior Therapy, Emotional Eating, Emerging Adulthood, Emotion Regulation, Single Case Experiment

Copyright holder:
 Author/s (2024)

This article is under:



How to cite:
Husodo, C., & Sukamto, M. E. (2024). Dialectical Behavior Therapy for Reducing Emotional Eating in Emerging Adult Women. *Bulletin of Counseling and Psychotherapy*, 6(2). <https://doi.org/10.51214/002024061054000>

Published by:
Kuras Institute

E-ISSN:
2656-1050

ABSTRACT: Emerging adulthood is a transitional period from adolescence to adulthood characterized by instability in roles and relationships as individuals navigate the demands of higher education, employment, intimate relationships, and self-identity formation. This transition often triggers various negative emotions, such as anxiety, distress, and self-doubt, particularly in women, making them more susceptible to engaging in emotional eating as a means of seeking temporary comfort or distraction. Emotional eating is a mechanism for temporary emotional relief, but feelings of regret or guilt often follow it. Emotion regulation skills are crucial when experiencing negative emotions. This study aims to demonstrate the effectiveness of Dialectical Behavior Therapy (DBT), an intervention designed to enhance emotion regulation skills, in reducing the occurrence of emotional eating among emerging adult women. The study employed a single case experiment design with two 21-year-old female participants experiencing emotional eating. The Emotional Eating Scale (EES) and emotional eating self-recording were used as measurement tools. Each participant received DBT over 7 sessions, each lasting 60-90 minutes. The results indicated that DBT reduced the frequency of emotional eating in both participants, with the effect persisting up to 14 days post-intervention. These findings suggest that DBT is an effective intervention for reducing emotional eating in emerging adult women.

INTRODUCTION

Emerging adulthood represents a transitional phase from adolescence to adulthood, occurring between the ages of 18-25 years. This period is characterized by identity exploration, which often leads to instability in romantic relationships, employment, and education, resulting in significant changes in lifestyle, roles, and residence (Agarwal et al., 2020; Santrock, 2019). The transition processes during emerging adulthood, including academic demands, employment, intimate relationships, and identity formation, often evoke various negative emotions (Lane, 2015; Santrock, 2019).

Individuals in emerging adulthood tend to experience high negative affect and low positive affect due to the pressures and uncertainties associated with this life transition (Suyono et al., 2021). In response to these conditions, individuals may become more vulnerable to emotional eating to seek comfort, distraction, or temporary control (Van Strien, 2018). Emotional eating is characterized by eating behavior not driven by physiological hunger but triggered by various negative emotions such as anxiety, depression, anger, and loneliness, which can create a negative cycle of feelings of shame,

guilt, and disgust over the behavior, leading to the recurrence of emotional eating (Dol et al., 2021; Glisenti & Strodl, 2012; Shriver et al., 2020).

Sadness, anger, and anxiety have a stronger correlation with emotional eating in women compared to men (Macht et al., 2008; Reichenberger et al., 2021). This is influenced by biological factors in women, such as hormonal fluctuations during certain phases of the menstrual cycle, which can increase emotional eating (Klump et al., 2013). Additionally, societal pressures related to beauty standards and body image contribute to the development of maladaptive eating behaviors as a coping mechanism for appearance-related stress in women (Rodgers et al., 2020). Emotional eating is positively associated with a spectrum of eating disorders related to body dissatisfaction, fear of losing control overeating, and eating behaviors such as dietary restriction and binge eating (Barnhart et al., 2020). Besides psychological impacts, emotional eating also has physical consequences, such as weight gain, obesity, and chronic diseases like diabetes and heart disease (Tsenkova et al., 2013).

Previous studies have found a relationship between poor emotion regulation and irregular eating behaviors (Barnhart et al., 2020; Shriver et al., 2020). Emotion regulation is defined as behaviors, skills, or strategies used to modulate emotional experiences and expressions, which can be conscious or unconscious (Shriver et al., 2020). Specifically, difficulties in emotion regulation are associated with binge eating, dietary restriction, body shape and weight issues, and overall eating pathology (Dingemans et al., 2017; Haynos et al., 2018; Prefit et al., 2019). Therefore, adaptive emotion regulation skills are crucial, especially for women in emerging adulthood, as social concerns such as seeking a partner and body image pressures can exacerbate these conditions (Potterton et al., 2020; Putri et al., 2022).

Effective emotion regulation can reduce emotional eating and simultaneously lower the risk of developing eating disorders (Barnhart et al., 2020). Interventions that enhance emotion regulation and mindfulness skills can significantly benefit individuals with high levels of emotional eating, promising reductions in maladaptive eating behaviors and support in weight loss (Salsabiela & Putra, 2022; Van Strien, 2018). Emotion regulation skills are important to prevent emotional eating from developing into more serious eating disorders, given that eating disorders are among the mental illnesses with high mortality rates (Eating Disorder Statistics, 2021).

One intervention that can help individuals with emotional eating through the development of emotion regulation skills is Dialectical Behavior Therapy (DBT). Initially developed to address emotion dysregulation in individuals with borderline personality disorder (Linehan, 1993), DBT has proven effective in developing emotion regulation skills and addressing various psychological disorders, including eating disorders (Cleveland Clinic, 2022). The primary focus of DBT is to teach emotion identification, increase emotional awareness, and use adaptive coping strategies to reduce emotional distress, the frequency of emotional eating, and weight in individuals with obesity (Glisenti & Strodl, 2012; Homayounpour et al., 2022). DBT is effective for adolescents to adults, with or without eating disorders, as it is based on a comprehensive and empirical affect regulation model, addressing emotional mechanisms as maintaining and triggering factors for eating disorders (Linardon et al., 2019).

DBT also emphasizes specific skills training, such as emotional awareness, distress tolerance, interpersonal effectiveness, and mindfulness, which have been shown to enhance adaptive coping strategies and resilience in dealing with stress. The dialectical approach, balancing acceptance and change, allows individuals to develop a deeper understanding of their emotional experiences, ultimately improving self-regulation and emotional well-being (Linehan, 2015). Consequently, DBT offers a novel approach to addressing emotional eating in women in emerging adulthood by providing healthier coping strategies and more effective emotion management (Lamarre et al., 2022).

This study is important because of the need to identify effective therapies for addressing emotional eating, particularly among women in emerging adulthood. Previous research has shown that Cognitive Behavioral Therapy (CBT) is effective in addressing emotional eating (Chew et al., 2022; Glisenti & Strodl, 2012; Torres et al., 2020). However, Glisenti and Strodl (2012) found that DBT was more effective than CBT in reducing the frequency of emotional eating and the intensity of emotional distress in obese adult subjects. Their study found that DBT interventions could reduce emotional distress and the frequency of emotional eating in response to negative emotions, whereas CBT interventions did not show overall reductions in these areas (Glisenti & Strodl, 2012). This finding suggests that in some cases, individuals have difficulty applying purely cognitive strategies without first honing emotion regulation strategies (Glisenti & Strodl, 2012). In other words, individuals overwhelmed by their emotional intensity may struggle to logically challenge thoughts related to emotional eating (Glisenti & Strodl, 2012). This aligns with Dol et al. (2021), who found that overweight individuals experiencing emotional eating were not helped by dieting or second-wave CBT because these treatments focused on changing behavior regarding food intake and physical activity, rather than on the ability to regulate emotions as in DBT.

The effectiveness of DBT has been widely researched in reducing symptoms of psychological disorders such as borderline personality disorder (Linehan, 2013), mood disorders, substance use disorders, eating disorders, and PTSD (Linehan et al., 2016). However, based on our literature review, studies using DBT as an intervention to address emotional eating are relatively rare and so far, limited to countries like Australia, the United States, Canada, and Iran (Glisenti & Strodl, 2012; Mushquash & McMahan, 2015; Mazzeo et al., 2016; Homayounpour et al., 2022). Despite there have been reports regarding the effectiveness of DBT in treating emotional eating in several countries, there has been no similar research found in Indonesia. Given this information, it seems necessary to initiate this study to explore the effectiveness of DBT in addressing emotional eating among Indonesian populations.

In this study, DBT skills will be provided comprehensively, including mindfulness, emotional regulation, distress tolerance skills, and interpersonal effectiveness skills. Previous research on the effectiveness of DBT in reducing emotional eating only used DBT skills involving mindfulness, emotional regulation, and distress tolerance skills, without interpersonal effectiveness skills (Hany et al., 2022). Interpersonal effectiveness skills are crucial for effective communication without hurting others' feelings while maintaining self-respect (Pluhar et al., 2018). We feel the need to include these skills because conflicts with others can be a source of negative emotions leading to emotional eating. Using comprehensive DBT skills is expected to demonstrate the potential of dialectical behavior therapy as an intervention to address emotional eating and prevent the development of more serious disorders, such as eating disorders.

METHODS

Design

Dialectical behavior therapy (DBT) served as the independent variable in this study, while emotional eating served as the dependent variable. A single-case experiment with a limited number of participants and individual analysis was the experimental design employed. The single-case experiment was A-B-A; therefore, the findings will be determined by measuring three times for each baseline phase, treatment phase, and follow-up phase (Yuwanto, 2012).

Participants

This study involved two participants selected using purposive sampling, which is the selection of participants based on previously determined inclusion and exclusion criteria to align with the objectives of the study. The inclusion criteria for participants were women, aged 18-25 years, who had moderate, high, or very high levels of emotional eating based on the Emotional Eating Scale (EES). Exclusion criteria were having undergone dialectical behavioral therapy and currently undergoing therapy with a clinical psychologist. The participants in this study met these inclusion and exclusion criteria, both were 21-year-old women, with one experiencing moderate emotional eating and the other high.

Instruments

The measurement tools used in this study were the Emotional Eating Scale (EES) and a self-recording of emotional eating behavior in daily life. The Emotional Eating Scale (EES), designed by Arnou, Kenardy, and Agras (1995), measures the desire to eat in response to negative emotions. EES is a self-report inventory with 25 items and consists of three subscales: feelings of anger/frustration, anxiety, and depression. EES uses a Likert scale with five score categories ranging from (0) no desire to eat, (1) small desire to eat, (2) moderate desire to eat, (3) strong desire to eat, and (4) overwhelming desire to eat.

Intervention

The DBT intervention in this study consisted of 7 sessions conducted individually for each participant. The intervention was carried out over approximately two months, with each session lasting 60-90 minutes. The intervention was structured based on the DBT stages described by Pluhar et al. (2018) and Hany et al. (2022), referring to Linehan as the founder of DBT. The behavioral skills provided in this intervention included mindfulness, emotion regulation, distress tolerance skills, and interpersonal effectiveness skills.

The first session began with outlining the emotional eating behaviors of both participants based on assessment results. The first researcher, acting as the therapist, then provided a brief overview of the DBT intervention process to be applied to address participants' emotional eating issues. The second and third sessions covered mindfulness skills, focusing on non-judgmental awareness and strategies to observe and describe emotional and cognitive experiences moment-to-moment. Additionally, clients were encouraged to practice mindful eating, engaging in non-judgmental eating behaviors, enjoying food regardless of quantity, and chewing slowly.

In the fourth session, emotion regulation was discussed, focusing on understanding the function of emotions, ways to increase positive emotions, change negative emotions through opposite actions, and accept emotions rather than ignore them. In the fifth session, participants practiced distress tolerance, finding effective and adaptive ways to cope with stressors and painful experiences without resorting to emotional eating while accepting food, themselves, and their bodies.

The sixth session involved practicing interpersonal effectiveness and strategies for effective communication without hurting others' feelings while maintaining self-respect. This skill is crucial for participants, especially if conflict with others is one of the stressors causing negative emotions leading to emotional eating. The seventh session reviewed the skills acquired during the intervention sessions and reinforced the commitment to prevent relapse in the future.

Data Analysis

Data analysis involved quantitative comparison of Emotional Eating Scale scores across the pre-test, post-test, and follow-up phases. Self-recording allowed participants to observe and record emotional eating behaviors that occurred in daily life outside of sessions. During each baseline and treatment phase, clients observed the frequency of emotional eating behaviors and filled out self-recordings for three days each week. A trend analysis graph was then created based on the self-recording results to measure the extent of change in emotional eating behavior due to the intervention process. Through trend analysis, comparisons are made between the trends before and after the intervention (Yuwanto, 2012). This analysis is presented through a graph comparing average scores, median, and trend changes from baseline to treatment phase (Sullivan & Feinn, 2012).

The small number of participants was a limitation of this study, so the results cannot be generalized to a larger population. However, the limited number of participants allowed for more in-depth analysis and personalization of the intervention, which provided valuable insights into the process and effectiveness of DBT in a specific context. This study relied on data triangulation using multiple data sources to develop a comprehensive understanding of the research problem and test validity through the convergence of information from multiple sources (Dawadi et al., 2021), including interviews, self-recordings, and scales. This approach allowed us to gain a consistent perspective on participants' emotional eating behavior changes.

RESULTS AND DISCUSSION

Results

The first set of results includes demographic information about the study participants (Table 1). The second set presents pre-test and post-test descriptions of both participants based on the Emotional Eating Scale (Table 2). Additionally, two trend analysis graphs illustrate the frequency of emotional eating behaviors before and after the DBT intervention (Figures 1 and 2). The final set of results describes the changes experienced by the participants from post-test to follow-up (Table 3).

Table 1. Participant Demographic Data

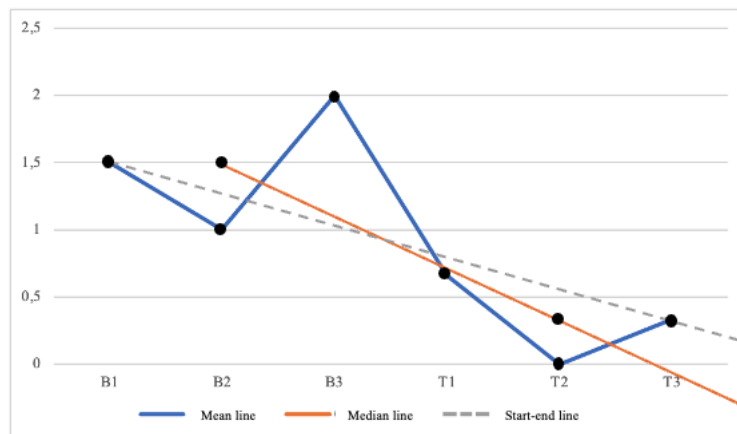
Participant	Gender	Age	Educational Level
A	Female	21	Undergraduate
B	Female	21	Undergraduate

Table 2. Comparison of Emotional Eating Scale Scores Before and After Intervention

Emotional Eating	Pre-test		Post-test		Change	
	Score	Category	Score	Category	Score	Category
Participant A						
Total Score	64	High	38	Low	-26	Dropped by 2 categories
Anger/ Frustration	21	Moderate	7	Very Low	-14	Dropped by 2 categories
Anxiety	29	Very High	24	High	-5	Dropped by 1 category
Depression	14	High	7	Rendah	-7	Dropped by 2 categories
Participant B						
Total Score	51	Moderate	30	Low	-21	Dropped by 1 category
Anger/ Frustration	25	Moderate	15	Low	-10	Dropped by 1 category
Anxiety	14	Low	8	Low	-6	Same category
Depression	12	High	7	Low	-5	Dropped by 2 categories

The demographic data in Table 1 shows that both participants were female, aged 21 years, and pursuing undergraduate education. Table 2 shows that Participant A experienced a large decrease in emotional eating, by two categories, between before and after the DBT intervention. Similarly, Participant B also demonstrated a decrease in emotional eating by one category between pre- and post-DBT intervention.

Additionally, quantitative data based on participants' self-recordings of emotional eating behavior during the baseline and intervention phases are presented through the following trend analysis graphs:



Note: B = Baseline phase; T = Treatment phase
Figure 1. Trend Analysis of Participant A

The trend line in Figure 1, derived from the median line (orange), is below the start-end line (gray). The decrease in behavior due to the intervention effect is indicated by the median line being below the start-end line (Yuwanto, 2012). This indicates a consistent decrease in emotional eating over time, indicating that dialectical behavior therapy reduced the frequency of emotional eating in Participant A.

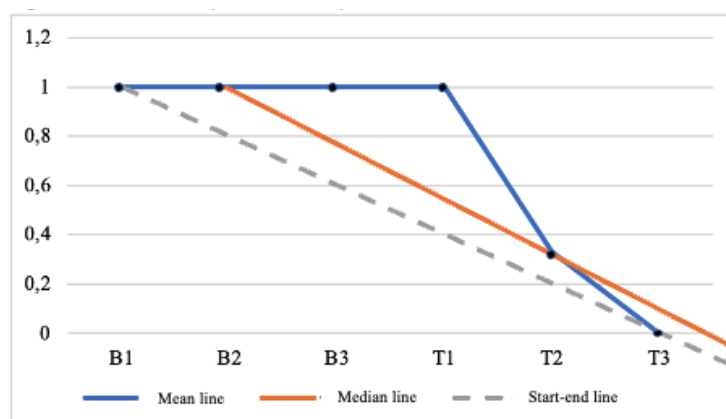


Figure 2. Trend Analysis of Participant B

The trend line in Figure 2, derived from the median line (orange), is above the start-end line (gray), indicating no significant reduction in emotional eating. However, if the median line were extended, it would be below the start-end line, indicating that the effectiveness of DBT would become more apparent with a longer duration of intervention. These results suggest that the

dialectical behavior therapy provided could reduce the frequency of emotional eating in Participant B but require a longer time.

Table 3 shows the results obtained from the Emotional Eating Scale (EES) during follow-up, 14 days after the intervention ended:

Table 3. Comparison of Emotional Eating Scale Scores at Post-test and Follow-up

Emotional Eating	Post-test		Follow-up		Change	
	Score	Category	Score	Category	Score	Category
Participant A						
Total Score	38	Low	24	Low	-14	Same category
Anger/ Frustration	7	Very Low	6	Very Low	-1	Same category
Anxiety	24	High	12	Low	-12	Dropped by 2 categories
Depression	7	Low	6	Low	-1	Same category
Participant B						
Total Score	30	Low	30	Low	0	Same category
Anger/ Frustration	15	Low	15	Low	0	Same category
Anxiety	8	Low	7	Very Low	-1	Dropped by 1 category
Depression	7	Low	8	Moderate	+1	Moved up 1 category

Table 3 shows that although Participant A experienced a decrease in the total score of 14 points from the post-test to the follow-up, emotional eating behavior remained in the low category. Participant B did not experience any change in score from the post-test to the follow-up, so emotional eating behavior remained in the low category. Overall, it can be concluded that the effects of dialectical behavior therapy on both participants persisted until the follow-up stage, 14 days after the intervention ended.

Discussion

This study aimed to demonstrate the effectiveness of Dialectical Behavior Therapy (DBT) in reducing emotional eating in women in emerging adulthood. DBT is a comprehensive psychological intervention to improve emotion regulation abilities in individuals with emotion dysregulation issues (Linehan & Wilks, 2015). The results of this study indicate that DBT effectively reduced the urges and frequency of emotional eating in both study participants. These findings are supported by previous research (Glisenti & Strodl, 2012; Homayounpour et al., 2022; Linardon et al., 2019), which showed the effectiveness of DBT in reducing emotional eating by enhancing emotion regulation skills. For example, Homayounpour et al. (2022) demonstrated that DBT effectively reduced emotion dysregulation, body mass index, and emotional eating in women aged 18-65 years with obesity. The results of DBT are attributed to the application of DBT skills that directly target emotion dysregulation, an important element causing emotional eating.

Emotional eating is characterized by the desire to eat in response to negative emotions without physiological hunger (Barnhart et al., 2020). In other words, emotional eating is an individual's attempt to cope with stress and manage negative emotions (Glisenti & Strodl, 2012), thus associated with emotion dysregulation (Barnhart et al., 2020). Therefore, the DBT approach that targets emotional mechanisms and aims to improve individuals' emotion regulation skills supports DBT as an effective intervention to reduce emotional eating (Linardon et al., 2019). The intervention results of this study are shown through quantitative data from the Emotional Eating Scale (EES), trend analysis graphs, and qualitative data from interviews after the intervention and at follow-up with both participants.

Participant A experienced a significant decrease in emotional eating based on the EES score, from the high to the low category after receiving the DBT intervention. Until 14 days after the intervention ended, Participant A's emotional eating condition remained in the low category based on the EES score. The decrease in Participant A's emotional eating is also supported by the trend analysis graph, which showed a median line below the start-end point line, proving that DBT could reduce emotional eating in Participant A.

Post-intervention and follow-up interviews revealed that Participant A felt the impact of several DBT skills acquired. Participant A found the deep breathing skill practical as it could be done anywhere and helped calm her mind. Deep breathing is a mindfulness technique to regulate emotions by focusing on slow, intentional breaths to increase relaxation and reduce stress (Safer, Adler, & Masson, 2018). Therefore, the impact felt by Participant A aligns with the benefits of deep breathing as an effective technique for relieving emotional tension and physical stress that can trigger the urge for emotional eating. Additionally, when Participant A felt uneasy while working on her college assignments, she used a self-soothing skill several times by smelling eucalyptus oil to calm her mind and make her feel more relaxed. This aligns with the purpose of self-soothing, which helps individuals divert focus from food to other calming activities using the senses to cope with emotions (Safer, Adler, & Masson, 2018).

However, the most influential DBT skill according to Participant A was the non-judgmental stance, which taught her to acknowledge the emotions felt, a step she often skipped. Not judging oneself and one's emotional experiences can reduce feelings of shame and guilt that may be triggered before or after emotional eating (Safer, Adler, & Masson, 2018). For example, when Participant A felt angry after arguing with her father, she judged herself for feeling this way toward her father, leading to guilt that triggered emotional eating before the intervention. After the intervention, she learned to accept and view the presence of anger as normal. At follow-up, Participant A reported feeling different after DBT, as she became more courageous in recognizing, acknowledging, and facing negative emotions, leading to a near absence of emotional eating.

Participant B also experienced a reduction in emotional eating based on EES scores, from a moderate to a low category after DBT intervention. This low emotional eating condition persisted until the follow-up stage. Participant B's trend analysis graph showed a median line above the start-end point line. However, extending the median line further below the start-end point line indicates that DBT can reduce emotional eating in Participant B, but requires a longer intervention duration. This result could be influenced by the presence of various negative emotions in Participant B during grief over her uncle's death at the start of the treatment phase, temporarily triggering emotional eating. Although DBT provides adaptive ways to manage emotional distress, the increased intensity of negative emotions due to grief can challenge DBT's effectiveness (Marshak, 2015).

Post-intervention and follow-up interviews with Participant B revealed that dialectical thinking was the most beneficial DBT skill, which seemed to be the key to changing her perspective that every problem has a solution. This aligns with the benefit of dialectical thinking, encouraging rigid thinking to become more flexible to help manage black-and-white thinking often associated with emotional eating (Safer, Adler, & Masson, 2018). Additionally, Participant B felt the impact of radical acceptance, learning that she often rejected or avoided negative emotions she deemed "unimportant." Through this skill, she realized that negative emotions also needed to be accepted, not just positive emotions. She recognized that accepting negative emotions did not mean agreeing with or liking them. This aligns with the benefit of radical acceptance, helping individuals stop struggling against negative emotions, and ultimately reducing the desire to cope through food (Safer, Adler, & Masson, 2018).

Furthermore, Participant B found mindful eating to be intriguing and helpful since it taught her to concentrate on one thing at a time, which made it difficult to eat emotionally at the same time. During the follow-up, Participant B stated that she regularly engaged in mindful eating, which involves purposefully eating without doing other things like watching TV or checking her phone. Despite experiencing negative emotions like annoyance and boredom, emotional eating has not returned from the last DBT session until the follow-up. This is because mindful eating has advantages that can lessen automatic eating reactions and promote more deliberate decisions, which in turn can lessen emotional eating (Safer, Adler, & Masson, 2018).

Upon closer examination, it can be seen that Participants A and B responded to the intervention differently. Individual differences may have an impact on how participants respond to the intervention and how it affects them (Tang & Braver, 2020). For example, the pattern observed in the trend analysis graphs of Participants A and B. A fluctuating pattern from the baseline phase was evident in Participant A's trend analysis graph and persisted throughout the treatment period. Overall, Participant A experienced a significant reduction in emotional eating. On the other hand, since the baseline phase, the levels and frequency of emotional eating were consistently displayed in Participant B's trend analysis graph. Participant B only began to gradually cut back on emotional eating during the treatment period, suggesting that more time was needed for the intervention to take effect and become ingrained in the routine.

A closer examination reveals different reactions between Participants A and B to the intervention. Individual differences can influence the intervention's effect on participants and their responses to receiving it (Tang & Braver, 2020). For example, the pattern observed in the trend analysis graphs of Participants A and B. Participant A's trend analysis graph showed a fluctuating pattern since the baseline phase, also visible in the treatment phase. Overall, Participant A experienced a significant reduction in emotional eating. In contrast, Participant B's trend analysis graph showed consistent levels and frequencies of emotional eating since the baseline phase. Only in the treatment phase did Participant B slowly but steadily reduce emotional eating, indicating a need for a longer time to adjust to and absorb the intervention process.

Overall, although the DBT intervention was more effective in reducing emotional eating in Participant A compared to Participant B, both experienced reductions in the level and frequency of emotional eating because DBT teaches skills for regulating emotional responses more healthily and effectively (Lamarre et al., 2022; Linehan & Wilks, 2015). DBT behavioral skills, including mindfulness, emotion regulation, distress tolerance, and interpersonal effectiveness, provide alternatives for participants to manage negative emotions previously handled through emotional eating. Therefore, DBT behavioral skills can reduce the need for emotional eating as a coping mechanism (Linehan & Wilks, 2015).

While this study demonstrates the effectiveness of DBT in reducing emotional eating, it is important to consider other factors that may have contributed to these results, such as participants' motivation, commitment, and consistency in following the intervention process, given that motivational issues also affect therapeutic alliance (Westermann et al., 2019). Participants' willingness and commitment to addressing emotional eating problems can influence their level of engagement in applying acquired DBT skills. This is evident from Participant A, who attended every session, except once when she rescheduled due to illness. Similarly, Participant B consistently attended sessions, rescheduling only for urgent matters. Overall, both participants were willing and followed every process from start to finish.

This study highlights the potential of DBT as an effective intervention for reducing emotional eating, contributing to the existing literature, and offering insights for clinical practice in addressing

this issue. However, the study also has limitations, such as the small number of participants and the absence of a control group, affecting the generalizability of the findings. Additionally, the short follow-up duration may be insufficient to assess the sustainability of intervention effects.

For future research, the study design can be developed by increasing the number of participants, extending the follow-up duration, and applying a randomized control design to strengthen the validity of the findings. Additionally, exploring the effectiveness of DBT on different participants or issues is possible. For example, to conduct a study about DBT's influence on emotional eating in male participants or its impact on other problems, such as the spectrum of eating disorders.

CONCLUSION

Reducing emotional eating in emerging adult women can be achieved with dialectical behavior therapy. Participants were able to identify, accept, and control unpleasant emotions that they had previously responded to with emotional eating by applying DBT skills, such as mindfulness, emotion regulation, distress tolerance, and interpersonal effectiveness. In addition to offering temporary fixes, these abilities enable participants more flexible and long-lasting coping mechanisms for dealing with life's challenges, especially as they transition into emerging adulthood. The importance of this study lies in its deeper understanding of applying DBT to address specific issues faced by women in managing negative emotions and eating behaviors. This demonstrates that DBT's relevance extends beyond broader psychological disorders to addressing unique psychological challenges during specific life phases. This study offers practical insights for psychology practitioners in developing more focused and effective intervention strategies for specific populations.

ACKNOWLEDGEMENT

We express our gratitude to all those who have contributed to and participated in this study, particularly the research participants.

REFERENCES

- Agarwal, S., Guntuku, S. C., Robinson, O. C., Dunn, A., & Ungar, L. H. (2020). Examining attachment and social support research. *The Professional Counselor*. <https://doi.org/10.15241/jal.5.1.15>
- 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 Disorders*, 18(1), 79–90. [https://doi.org/10.1002/1098-108X\(199507\)18:1](https://doi.org/10.1002/1098-108X(199507)18:1)
- Barnhart, W. R., Braden, A. L., & Price, E. (2020). Emotion regulation difficulties interact with negative, not positive, emotional eating to strengthen relationships with disordered eating: An exploratory study. *Appetite*, 158, 105038. <https://doi.org/10.1016/j.appet.2020.105038>
- Chew, H. S. J., Lau, S. T., & Lau, Y. (2022). Weight-loss interventions for improving emotional eating among adults with high body mass index: A systematic review with meta-analysis and meta-regression. *European Eating Disorders Review*, 30(3), 304–327. <https://doi.org/10.1002/erv.2906>
- Dawadi, S., Shrestha, S., & Giri, R. A. (2021). Mixed-methods research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education*, 2(2), 25–36. <https://doi.org/10.46809/jpse.v2i2.20>
- Dingemans, A., Danner, U., & Parks, M. (2017). Emotion regulation in binge eating disorder: A review. *Nutrients*, 9(11), 1274. <https://doi.org/10.3390/nu9111274>
- Dol, A., Bode, C., Velthuisen, H., van Strien, T., & van Gemert-Pijnen, L. (2021). Application of three different coaching strategies through a virtual coach for people with emotional eating: A

- vignette study. *Journal of Eating Disorders*, 9(1), 1–15. <https://doi.org/10.1186/s40337-020-00367-4>
- Eating Disorder Statistics. (2021). National Association of Anorexia Nervosa and Associated Disorders. Retrieved from <https://anad.org/get-informed/about-eating-disorders/eating-disorders-statistics/>
- Glisenti, K., & Strodl, E. (2012). Cognitive behavior therapy and dialectical behavior therapy for treating obese emotional eaters. *Clinical Case Studies*, 11(2), 71–88. <https://doi.org/10.1177/1534650112441701>
- Hany, M., Elfiky, S., Mansour, N., Zidan, A., Ibrahim, M., Samir, M., Allam, H. E. S., Yassin, H. A. A., & Torensma, B. (2022). Dialectical behavior therapy for emotional and mindless eating after bariatric surgery: A prospective exploratory cohort study. *Obesity Surgery*, 32(5), 1570–1577. <https://doi.org/10.1007/s11695-022-05983-4>
- Haynos, A. F., Wang, S. B., & Fruzzetti, A. E. (2018). Restrictive eating is associated with emotion regulation difficulties in a non-clinical sample. *Eating Disorders: The Journal of Treatment & Prevention*, 26(1), 5–12. <https://doi.org/10.1080/10640266.2018.1418262>
- Homayounpour, P., Seirafi, M., & Ghareh, S. (2022). Efficacy of dialectical behavior therapy in reduction of negative emotions in obese women. *Psychology & Behavior Research*, 5(1), 57–64. <https://doi.org/10.1002/psy.br.2022>
- Klump, K. L., Keel, P. K., Racine, S. E., Burt, S. A., Neale, M., Sisk, C. L., Boker, S., & 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. <https://doi.org/10.1037/a0029524>
- Lamarre, A., Levine, M. P., Holmes, S., & Malson, H. (2022). An open invitation to productive conversations about feminism and the spectrum of eating disorders (part 1): Basic principles of feminist approaches. *Journal of Eating Disorders*, 1–12. <https://doi.org/10.1186/s40337-021-00484-3>
- Lane, J. A. (2015). Counseling emerging adults in transition: Practical applications of developmental theory. *Journal of College Counseling*, 18(2), 117–130. <https://doi.org/10.1002/jocc.12010>
- Linehan, M. M. (2015). *DBT skills training manual* (2nd ed.). Guilford Press.
- Linehan, M. M., Dimeff, L., Koerner, K., & Miga, E. M. (2016). Research on dialectical behavior therapy: Summary of the data to date. *Behavioral Tech*. Retrieved from <https://behavioraltech.org/wp-content/uploads/2023/07/Non-RCTs-Research-Data-to-Date-2013.12.pdf>
- Linehan, M. M., & Wilks, C. R. (2015). The course and evolution of dialectical behavior therapy. *American Journal of Psychotherapy*, 69(2), 97–110. <https://doi.org/10.1176/appi.psychotherapy.2015.69.2.97>
- Linardon, J., Gleeson, J., Yap, K., Murphy, K., & Brennan, L. (2019). Meta-analysis of the effects of third-wave behavioral interventions on disordered eating and body image concerns: Implications for eating disorder prevention. *Cognitive Behaviour Therapy*, 48(1), 15–38. <https://doi.org/10.1080/16506073.2018.1517389>
- Macht, M. (2008). How emotions affect eating: A five-way model. *Appetite*, 50(1), 1–11. <https://doi.org/10.1016/j.appet.2007.07.002>
- Marshak, M. (2015). DBT and bereavement: A multiple baseline design (Doctoral dissertation). Retrieved from *Loyola University Chicago, Dissertations*. (1645) https://ecommons.luc.edu/luc_diss/1645
- May, J. M., Richardi, T. M., & Barth, K. S. (2016). Dialectical behavior therapy as treatment for borderline personality disorder. *Mental Health Clinician*, 6(2), 62–67. <https://doi.org/10.9740/mhc.2016.03.62>
- Mazzeo, S. E., Lydecker, J., Harney, M., Palmberg, A. A., Kelly, N. R., Gow, R. W., & Stern, M. (2016). Development and preliminary effectiveness of an innovative treatment for binge eating in

- racially diverse adolescent girls. *Eating Behaviors*, 22, 199–205. <https://doi.org/10.1016/j.eatbeh.2016.06.014>
- Mushquash, A. R., & McMahan, M. (2015). Dialectical behavior therapy skills training reduces binge eating among patients seeking weight-management services: Preliminary evidence. *Eating and Weight Disorders*, 20(3), 415–418. <https://doi.org/10.1007/s40519-015-0177-0>
- Pluhar, E. I., Kamody, R. C., Sanchez, J., Thurston, I. B., & Burton, E. T. (2018). Description of an intervention to treat binge-eating behaviors among adolescents: Applying the template for intervention descriptions and replication. *International Journal of Eating Disorders*, 51(10), 1128–1133. <https://doi.org/10.1002/eat.22954>
- Potterton, R., Richards, K., Allen, K., & Schmidt, U. (2020). Eating disorders during emerging adulthood: A systematic scoping review. *Frontiers in Psychology*, 11(1), Article 3062. <https://doi.org/10.3389/fpsyg.2019.03062>
- Prefit, A.-B., Căndea, D. C., & Szentagotai-Tătar, A. (2019). Emotion regulation across eating pathology: A meta-analysis. *Appetite*, 143, 104438. <https://doi.org/10.1016/j.appet.2019.104438>
- Putri, A. L. K., Lestari, S., & Khisbiyah, Y. (2022). A quarter-life crisis in early adulthood in Indonesia during the COVID-19 pandemic. *Indigenous: Jurnal Ilmiah Psikologi*, 7(1), 28–47. <https://doi.org/10.23917/indigenous.v7i1.15543>
- Reichenberger, J., Schnepfer, R., Arend, A. K., Richard, A., Voderholzer, U., Naab, S., & Blechert, J. (2021). Emotional eating across different eating disorders and the role of body mass, restriction, and binge eating. *International Journal of Eating Disorders*, 54(5), 773–784. <https://doi.org/10.1002/eat.23477>
- Rodgers, R. F., Watts, A. W., Austin, S. B., Haines, J., & Neumark-Sztainer, D. (2020). Disordered eating in ethnic minority adolescents with overweight. *International Journal of Eating Disorders*, 53(5), 513–522. <https://doi.org/10.1002/eat.23236>
- Safer, D. L., Adler, S., & Masson, P. C. (2018). *The DBT solution for emotional eating*. Guilford Press.
- Salsabiela, A. S., & Putra, W. K. Y. (2022). Emotional eating among final year undergraduate female students of faculty of public health Universitas Indonesia during COVID-19 pandemic in 2021. *Journal of Public Health Research*, 2(2), 1–12. <https://doi.org/10.4081/jphr.2022.155>
- Santrock, J. W. (2011). *Life-span development* (13th ed.). McGraw-Hill.
- Shriver, L. H., Dollar, J. M., Calkins, S. D., Keane, S. P., Shanahan, L., & Wideman, L. (2021). Emotional eating in adolescence: Effects of emotion regulation, weight status, and negative body image. *Nutrients*, 13(1), Article 1079. <https://doi.org/10.3390/nu13010079>
- Sullivan, G. M., & Feinn, R. (2012). Using effect size—or why the p-value is not enough. *Journal of Graduate Medical Education*, 4(3), 279–282. <https://doi.org/10.4300/JGME-D-12-00156.1>
- Suyono, T. A., Kumalasari, A. D., & Fitriana, E. (2021). Hubungan quarter-life crisis dan subjective well-being pada individu dewasa muda. *Jurnal Psikologi*, 14(2), 301–322. <https://doi.org/10.24854/jps.v14i2.3169>
- Tang, R., & Braver, T. S. (2020). Towards an individual differences perspective in mindfulness training research: Theoretical and empirical considerations. *Frontiers in Psychology*, 11, Article 818. <https://doi.org/10.3389/fpsyg.2020.00818>
- Torres, S., Sales, C. M. D., Guerra, M. P., Simões, M. P., Pinto, M., & Vieira, F. M. (2020). Emotion-focused cognitive behavioral therapy in comorbid obesity with binge eating disorder: A pilot study of feasibility and long-term outcomes. *Frontiers in Psychology*, 11, Article 343. <https://doi.org/10.3389/fpsyg.2020.00343>
- Tsenkova, V., Boylan, J. M., & Ryff, C. (2013). Stress eating and health. Findings from MIDUS, a national study of US adults. *Appetite*, 69, 151–155. <https://doi.org/10.1016/j.appet.2013.05.020>
- Van Strien, T. (2018). Causes of emotional eating and matched treatment of obesity. *Current Diabetes Reports*, 18(4), Article 35. <https://doi.org/10.1007/s11892-018-1000-9>

- Westermann, S., Holtforth, M. g., & Michalak, J. (2019). Motivation in psychotherapy. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (2nd ed., pp. 417–441). Oxford University Press.
- Yuwanto, L. (2012). *Pengantar metode penelitian eksperimen*. CV. Dwiputra Pustaka Jaya.