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Research Article

Pilot Results of the Reintegrative Protocol in the Treatment of Binge Eating

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ABSTRACT

Experiencing a traumatic event, or a series of traumatic events, may increase the probability of the subsequent development of binge eating and Binge Eating Disorder (BED). BED is the most common eating disorder in the United States, affecting some 2%-4% of people yearly. Due to the large prevalence of this disorder, as well as the burden BED puts on those living with it, effective treatment practices for treating BED are necessary. To date, there has been no research specifically examining the novel reintegrative protocol in a clinical setting as a treatment modality for BED. The purpose of this small, multiple-baseline pilot study was to explore the practicality and efficacy of the reintegrative protocol in treating BED by treating traumatic memories of individuals who engage in binge eating. Overall, the reintegrative protocol demonstrates promise as a tool for affect regulation and the treatment of BED. While implementing the protocol was feasible, the results varied among the 6 heterogeneous subjects and therefore, further research is required.

Keywords: Binge eating disorder; Affect dysregulation; Reintegrative protocol

INTRODUCTION

Feeling a loss of control while eating large amounts of food within a limited period of time is a primary characteristic of Binge Eating Disorder (BED) [1], which affects nearly 4% of women and 2% of men worldwide [2,3]. Prior research and clinical work have shown that early as well as prolonged experiences of trauma increase chances for the development of BED [4,5]. Additionally, research suggests that most individuals with BED have at least one co-morbid psychiatric disorder during their lifetime such as a mood, anxiety, or substance use disorder [6-8].

One of the main causes of BED is negative affect [4]. This relationship is cyclical, as negative affect triggers binge eating, and binge eating subsequently acts to temporarily down-regulate negative affect [9]. Due to this cycle, the use of different types of therapeutic practices focused on regulating negative affect and changing behaviors are widely used for the treatment of BED such as cognitive behavioral therapy and interpersonal therapy [10]. However, when treating BED it is also necessary to integrate an additional focus on identifying the core issues or events that have resulted in the initial development of BED, of which many patients may not be aware.

The reintegrative protocol is a recently developed tool which works by exploring a patient's emotional reactions to events in order to surface any traumatic memories that may be acting as driving factors behind a client's exhibited emotional responses [11]. Because the reintegrative protocol works to assess core factors contributing to affectively dysregulated symptoms, this study sought to examine the effects of this protocol on binge eating behavior and its potential value in the treatment of BED. Due to the exploratory nature of this endeavor, a small pilot study was chosen to begin this investigation.

METHODOLOGY

A staggered-start multiple baseline comparison study design was used to examine self-reported eating behavior using the Binge Eating Scale (BES-16) and distress using the Outcome Questionnaire 45.2 (OQ-45). To distinguish between the effects of psychotherapy and the treatment protocol, and better isolate the effects caused by the treatment protocol itself, two participants began the treatment protocol in session 3, two received it in session 4 and two received it in session 5. Sessions were balanced for gender. Each participant underwent 12 sessions in total. Both assessments were administered for each participant before any treatment, after each session of general psychotherapy, and after each session once the reintegrative protocol was implemented. The therapist conducting the sessions was blind to the results

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throughout the entire data collection process. The treatment plan was approved by the Institutional Review Board at Fresno Pacific University.

Participants

Six participants (3 men and 3 women) of diverse backgrounds (Table 1) participated in this study in an outpatient psychotherapy setting. Subjects were recruited in a sequential manner. The first three males and first three females who gave consent were enrolled into the study. The subjects' well-being was assessed using the OQ-45 and their binge eating behavior was assessed using the BES-16 [12,13]. Participants were screened for self-identifying as seeking services for binge eating behavior and met DSM-5 diagnostic criteria for BED. Informed consent was obtained for all subjects.

Procedure

Reintegrative protocol: The client is instructed to identify the primary, most powerful scenario of their binge eating behavior (for example, an ideal food and context), and to then feel the positive feelings associated with that experience. After feeling the sensation intensely, the client is instructed to switch to a third person viewpoint, looking into their own eyes during the most pleasurable moment of their binge eating, and then to non-judgmentally continue gazing into their own eyes and mindfully perceive the deepest emotions that can be seen [11]. The client is then invited to recall when he or she has felt this way before.

Any memories the client can identify are referred to as "target memories" and are treated at this phase of the protocol. Because of its modular design, the reintegrative protocol allows for any evidence-based trauma resolution method to reprocess target memories – the selection of this method is up to the discretion of the client and therapist. For this pilot study, the Flash Technique, a variation of the trauma reprocessing method Eye Movement Desensitization and Reprocessing (EMDR) was used. The Flash Technique has been shown to resolve traumatic memories quickly without emotionally overwhelming the client [14].

Upon completion of trauma reprocessing, the client is asked to revisit the original binge eating behavior and reassess the original peak binge eating experience. This process is repeated each session over the course of 12 weeks.

Statistical analysis

There was a small amount (0.35%) of missing data from the BES-16 Questionnaire (from one subject) and 0.37% for OQ-45 Questionnaire across 4 subjects. While the percentage is very small, given the small number of subjects and that total scores were used as the outcome variable, missing data was imputed using the last observation carried forward.

Protocol was used to code the treatment visit as (1) if treatment was present and (0) if no treatment was present. The change scores between the last baseline visit and the final treatment visit were calculated and analyzed to identify a significant change. Change scores were also used as the outcome variable in a linear regression. In this regression, grouping subjects by the visit when the protocol was implemented (protocol start visit) was used as the predictor.

RESULTS

The primary result of our study is that after 12 weeks of treatment with the reintegrative protocol, all subjects show a reduction in their binge eating behavior, and five out of six subjects show an improvement in their overall wellbeing (Table 2).

By the end of the treatment period, changes in BES-16 scores across individual subjects vary from a reduction of -7 to -31 points (Table 2). OQ-45 scores decreased from a range of -5 to -57 in five of six participants. One participant showed an increase in their OQ-45 score by the end of the treatment period (Table 2). Averaged across all participants, a week-by-week downward trend was observed in both BES-16 (Table 3) and OQ-45 scores (Table 2). For most participants a congruent decrease in both binge eating behavior and distress scores were observed during the treatment period (Figure 1).

Table 1: Demographic information for all subjects.

Subject ID	Gender	Age	Ethnicity	Marital status	Highest education level
A1	M	57	White	Never married	Graduate or professional school
A2	M	55	White	Never married	Graduate or professional school
A3	M	55	Hispanic	Never married	Graduate or professional school
A4	F	35	Black	Married	Some college
A5	F	20	Hispanic	Never married	Some college
A6	F	44	White	Never married	Graduate or professional school

Table 2: Mean Raw Change in BES-16 and OQ-45 scores from last baseline visit to last treatment visit (Visit 12 for all subjects).

	Binge 16		OQ-45	
Protocol Start	Mean Change (Std Dev)	Min, Max	Mean Change (Std Dev)	Max, Min
Visit 3	-16 (12.73)	-25, -7	-31 (36.77)	-57, -5
Visit 4	-11 (4.24)	-14, -8	1.5 (20.51)	-13, 16
Visit 5	-22.5 (12.02)	-31, -14	-9.5 (0.71)	-10, -9

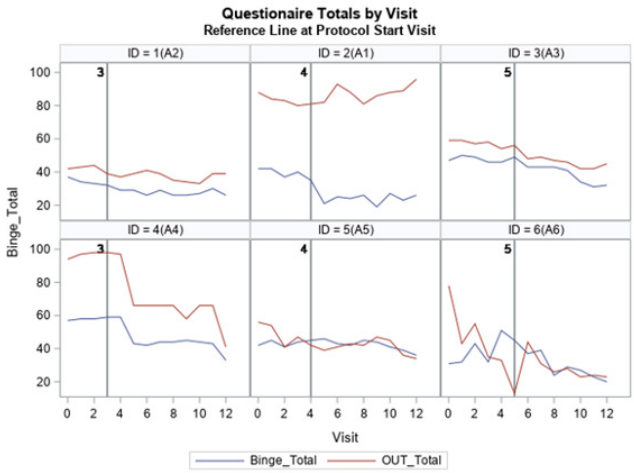

Figure 1: Week by week change in BES-16 and OQ-45 scores over the course of the 12 study visits. After 12 weeks of treatment with the reintegrative protocol, five out of six subjects show concurrent reductions in both binge eating behavior and distress scores. In one subject, although binge eating behavior decreased, OQ-45 distress scores remained high. Binge_ Total=BES-16 score at time of measurement; OUT_Total=OQ-45 score at time of measurement.

The change score for BES-16 was significantly different than 0 (t1,5=-4.22522, p=0.0083) but the change score for OQ-45 was not (t1,5=-1.33004, p= 0.2409). When the change score for BES-16 was used in a linear regression, protocol start was not statistically significant, indicating the decrease in the BES-16 score was not statistically different depending on how early the protocol was implemented (Table 3). This may be due to the low number of subjects enrolled.

Table 3: Estimated least square means of BES-16 change score using protocol start visit as a predictor.

Protocol start visit	Estimate	Std error	DF	t-Value	Pr>|t|
3	-16	7.3541	3	-2.18	0.1178
4	-11	7.3541	3	-1.5	0.2316
5	-22.5	7.3541	3	-3.06	0.055

DISCUSSION AND CONCLUSION

The aim of this experiment was to examine whether a novel treatment protocol for affect regulation, the reintegrative protocol, could be an effective treatment tool for patients with binge eating disorder. The results of the study indicate that the reintegrative protocol has promise as a successful tool for reducing binge eating behavior while increasing wellbeing, and thus does warrant further, larger studies examining the efficacy of this treatment paradigm.

All patients in this experiment had reduced BES-16 scores by the end of 12 weeks of treatment, and all but one participant in the study showed reduced OQ-45 scores, indicating that the reintegrative protocol can have success in improving wellbeing in certain patients. Cognitive behavioral therapy is a commonly used therapeutic practice for treating binge eating disorder and has shown similar reductions in binge eating episodes after months of treatment [15]. One participant in this experiment (participant A1) had OQ-45 scores that remained high throughout the experiment and had a 16-point increase in his score by experiment end. It is important to note that participant A1 is an emergency room medical doctor who has been actively working during the ongoing COVID-19 pandemic. This is important for two reasons. First, during this participant's treatment sessions, participant A1 reported having far greater difficulty than usual with affect regulation, especially given the unforeseen circumstances due to the evolving conditions surrounding COVID-19. Second, participant A1 was struggling due to stressors in his current work environment, which were ongoing and evolving, differing from the other five subjects. That participant A1 is struggling to cope with his current trauma and his OQ-45 scores continue to increase through the 12-week treatment regimen indicates that the reintegrative protocol combined with psychotherapy may only be appropriate for patients working through a past trauma, not ongoing or evolving trauma. However, further research into this topic is needed.

A shared theme was reported among the types of traumatic memories the subjects reported: childhood experiences in which the participants did not feel supported, and in which their relationships failed to help them affect regulate. Participant A1's ongoing stressful experience can be distinguished significantly from the other participants in this experiment. Thus, experiments using a larger group of participants with various experiences of

trauma, including past and ongoing trauma, are necessary for determining the efficacy of the reintegrative protocol for different types of patients. Additional limitations of this study include a small sample size and the use of the BES-16 as a main outcome measure. To yield more high-resolution findings, further research needs to be done with a more sensitive instrument than the BES-16, which only uses a maximum of 4 item-responses for each question [16]. Though subjects were heterogeneous in regard to ethnicity and gender, a larger sample size taking into account various socioeconomic backgrounds would yield more information to assess treatment results. Socioeconomic status was not provided by the participants in this pilot study.

Despite the multiple-baseline design that was used, due to the limited sample size and lower-resolution binge eating assessment used, it is not precisely clear to what extent the treatment results were specifically due to the treatment protocol, versus general psychotherapy in the pre-treatment phase. However, when comparing these accelerated treatment results to general psychotherapy or CBT the accelerated results from this pilot study indicate the protocol may be responsible for these treatment effects [17].

Despite these significant limitations, preliminary results indicate potential clinical utility of this treatment protocol. Preliminary evidence from this pilot study suggests that the reintegrative protocol may be helpful for some individuals working through past traumas, although further research utilizing a more sensitive measurement tool as well as a larger and more diverse subject pool are needed in order to identify who would best benefit from this treatment protocol.

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REFERENCES

1. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 5th ed. American Psychiatric Publishing. 2013.
2. Hudson JI, Hiripi E, Pope HG, Kessler RC. The prevalence and correlates of eating disorders in the national comorbidity survey replication. Biol Psychiatry. 2007;61(3): 348-58.
3. Stice E, Bohon C. Eating disorders. child and adolescent psychopathology. Wiley. 2012.
4. Palmisano GL, Innamorati M, Vanderlinden J. Life adverse experiences in relation with obesity and binge eating disorder: A systematic review. J Behav Addict. 2016;5(1):11-31.
5. Quilliot D, Brunaud L, Mathieu J, Quenot C, Sirveaux MA, Kahn JP et al. Links between traumatic experiences in childhood or early adulthood and lifetime binge eating disorder. Psychiatry Res. 2019;276: 134-41.
6. Javaras KN, Pope HG, Lalonde JK, Roberts JL, Nillni YI, Laird NM, et al . Co-occurrence of binge eating disorder with psychiatric and medical disorders. J Clin Psychiatry. 2008;69(2):266-273
7. Grilo CM, White MA, Masheb RM. DSM-IV psychiatric disorder comorbidity and its correlates in binge eating disorder. International J Eat Disord. 2009;42(3): 228-34.
8. Olguin P, Fuentes M, Gabler G, Guerdjikova AI, Keck PE, McElroy SL. Medical comorbidity of binge eating disorder. Eat Weight Disord. 2017;22(1):13-26.
9. Leehr EJ, Krohmer K, Schag K, Dresler T, Zipfel S, Giel KE. Emotion regulation model in binge eating disorder and obesity-a systematic review. Neurosci Biobehav Rev. 2015;49:125-34.
10. Iacovino JM, Gredysa DM, Altman M, Wilfley DE. Psychological treatments for binge eating disorder. Curr Psychiatry Rep. 2012;14(4):432-46.
11. Nicolosi J. The reintegrative protocol. J Human Sex. 2018; 9: 59-69.
12. Lambert MJ, Gregersen, AT, Burlingame GM. The Outcome Questionnaire-45. Lawrence Erlbaum Associates Publishers. 2004:191-234.
13. Cotter EW, Kelly NR, Binge. Eating Scale (BES). Ency Feed and Eat Dis. 2015.
14. Manfield P, Lovett J, Engel L, Manfield D. Use of the flash technique in EMDR therapy: Four case examples. J EMDR Practice Res. 2017;11(4):195-205.
15. Ricca V, Castellini G, Sauro CL, Rotella CM, Faravelli C. Zonisamide combined with cognitive behavioral therapy in binge eating disorder: A one-year follow-up study. Psychiatry. 2009;6(11):23-28
16. Gormally JI, Black S, Daston S, Rardin D. The assessment of binge eating severity among obese persons. Addict Behav. 1982;7(1):47-55.
17. Iacovino JM, Gredysa DM, Altman M, Wilfley DE. Psychological treatments for binge eating disorder. Curr Psychiatry Rep. 2012;14(4):432-46.