

Psychological Treatment of Binge-Eating Disorder: A Case Study

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ABSTRACT: We present an integrative, experiential-based, psychological treatment for binge-eating disorder (BED). The Millon Clinical Multiaxial Inventory III (MCMI-III), Eating Disorder Inventory 3 (EDI-3), Social Cognitive Scales of Healthy Eating Behavior have used pre- and post-treatment for the assessment of the personality features and associated symptoms, binge-eating symptomatology and eating behavior. The experiential psychotherapy consisted of 10 sessions. The reflective, mindfulness-based strategies, creative-expressive and behavioral techniques were focused both on the psychological maladaptive mechanisms, and symptoms of the BED. The psychological treatment reduced the BED symptomatology and depressive symptoms associated with BED.

KEYWORDS: binge eating, psychological treatment, behavioural techniques, creative-expressive techniques, creative meditation

Introduction

Binge-eating disorder (BED) is the most prevalent eating disorder. It was first included as its diagnostic condition in the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorder (DSM-5) within the Feeding and Eating Disorder Section (Frey 2018; Hilbert 2019) based on extant literature demonstrating the clinical significance of this disorder. BED's symptoms are recurrent binge eating, involving the consumption of an amount of food that is definitively larger than others would eat under comparable circumstances within a certain time associated with a feeling of loss of control over eating (Hilbert 2019). BED develops a complex etiology involving multiple psychological, biological, and sociocultural influences (Bakalar, Shank, Vannucci, Radin & Tanofsky-Kraff 2015; Hilbert 2019). Retrospective correlates of risk for BED were mostly shared with the other eating disorders and included premorbid negative affectivity, perfectionism, conduct problems, substance abuse, childhood obesity, family weight concerns and eating problems, parenting problems and family conflict, parental psychopathology, and physical and sexual abuse (Hilbert 2019; Hilbert et al. 2014). Many individuals with BED have comorbid emotional disorders (Dingemans, Danner, & Parks 2017; Glisenti, Strodl, & King 2018) including anxiety (Becker et al. 2017; Blomquist & Grilo 2015; Glisenti et al. 2018) and depression (Araujo, Santos, & Nardi 2010; Glisenti et al. 2018; Udo, McKee, & Grilo 2015). Difficulties in emotion regulation have been identified as an antecedent of many eating disorder behaviors, including binge eating (Glisenti et al. 2018; Lawson, Emanuelli, Sines, & Waller 2008; Leehr et al., 2015). Binge eating occurs in the absence of effective regulation skills related to experiencing and differentiating as well as attenuating and modulating emotions (Brockmeyer et al. 2014).

It is well established that psychotherapy can effectively treat eating disorders (ED) (Cuijpers, Reijnders, & Huibers, 2019; Godfrey, Gallo, & Afari, 2015). Recent meta-analyses of RCTs in patients with BED demonstrated that psychotherapy, specifically the most frequently used approach of cognitive-behavioral therapy (CBT),

has significant effects on the reduction of binge-eating episodes and remission from binge eating when compared with inactive control groups, mostly wait-list, at post-treatment (Hilbert et al., 2019; Linardon, de la Piedad Garcia, & Brennan, 2017; Peat et al., 2017). A superiority of CBT over other psychotherapies that specifically addressed the symptoms of BED, for example, interpersonal psychotherapy or psychodynamic therapy, was not found (Hilbert et al. 2019; Spielmans et al. 2013). Thus, other psychotherapies with tailored interventions for BED may be as efficacious.

Humanistic experiential psychotherapies (HEP) originated from the humanistic tradition, include person-centered, emotion-focused, existential, gestalt, creative-expressive, focusing-oriented approaches (Mullings 2017). HEP share a focus in promoting in-therapy client experiencing, defined as the holistic process of immediate, ongoing awareness that includes perceiving, sensing, feeling, thinking, and wanting/intending (Leslie et al. 2013). People are viewed as meaning-creating, symbolizing agents, whose subjective experience is an essential aspect of their humanity (Leslie et al. 2013). Internal tacit experiencing is seen as an important guide to conscious experience, fundamentally adaptive, and potentially available to awareness when the person turns attention internally within the context of the therapeutic relationship (Leslie et al. 2013). A growing number of actual approach from outside of the humanistic tradition have also begun to integrate elements of HEP (Angus, Watson, Elliott, Schneider, & Timulak, 2015; Mullings 2017). Although coming from a different tradition. "Third-generation" cognitive-behavioral therapies such as mindfulness-based cognitive therapy, acceptance and commitment therapy (ACT), and compassion-focused therapy have expanded to have much in common with HEPs (Leslie et al. 2013).

The newer approaches in the HEPs are focused on maintaining a creative tension between the person-centered emphasis on creating a genuinely empathic therapeutic relation, a more active, task-focused process-facilitation style of engagement that permits deeper experiencing and consequent meaning reaction (Leslie et al. 2013). The creative – expressive therapy (HECP) in the HEPs can facilitate psychological growth and support healing in several ways (Hinze 2006; Sporild & Bonsaksen 2015). A central idea of HCEP is that all humans, regardless of drawing skills or other creative skills, can express thoughts and feelings visually. When using art in therapy, there is knowledge to be gained from observing the creating person, from witnessing his or her creative process, and from viewing the resulting art product (Ball 2002; Sporild & Bonsaksen 2015). HCEP means both art creation and therapeutic analyses or intervention. The art therapeutic process implies, the subtle or more obvious activation of the multiple roles in the psychological dynamic of the patient (Petre 2018). In the course of HCEP treatment, the patient plays the role of the spectator, performer, and director of the specific stages. Thus, they could observe, manipulate, control, or change the art therapeutic environment, at first, and then the real world. Patient's artistic productions – drawings, collages, modeling, art genograms, could be both the question and the answer about a psychological issue because the creative production is concrete. It reflects that experience which has a meaning for the patient in a specific life moment. Thus, it permits to see better the problem, to clarify it, to manipulate it, to modify or change it. The art therapy facilitates direct contact with the symptomatology or problem and, with Self (Petre 2018).

The current case study provides preliminary evidence related to the protocol and outcomes of HCEP approach in BED. Additionally, this study seeks to examine changes in binge-eating psychopathology, binge-eating frequency (occurrence over 28 days), and eating disorder attitudes.

Method

Design

This study is a single-subject design. An HCEP approach was applied.

Participant

Table 1. Pretreatment participant characteristics

Age	Gender	Education	Employment status	Relationship status	BED onset	Binge eating episodes*	Comorbidity
29	Female	University	Employed	Married	22 y	56	GAD + MDD ¹

* Previous 28 days; ¹ GAD: generalized anxiety disorder; MDD: major depressive disorder.

Instruments

Binge eating psychopathology was assessed with Eating Disorder Inventory-3 (EDI-3). Eating Disorder Inventory (EDI)(Garner, Olmstead, & Polivy, 1983) is a self-report questionnaire widely used both in research and in clinical settings to assess the symptoms and psychological features of eating disorders. In version 2, EDI was developed by comprising three subscales measuring eating disorder symptoms, i.e., *drive for thinness* (DT), *bulimia* (B) and *body dissatisfaction* (BD), and five more general psychological features related to eating disorders, i.e., *ineffectiveness* (IN), *perfectionism* (PE), *interpersonal distrust* (ID), *interoceptive awareness* (IA) and *maturity fears* (MF) (Clausen, Rosenvinge, Friberg, & Rokkedal, 2011). In 1991, the EDI was enlarged from 64 to 91 items to measure additional general features related to *asceticism* (AS), *impulse regulation* (IR) and *social insecurity* (SI). The EDI-3 represents an expansion and improvement of the earlier versions of the EDI. It consists of the same 91 questions as the EDI-2, including the same three subscales of eating disorder symptoms. The reliability of these index scores collected from eating disorder patients appears excellent (Cronbach's $\alpha = .90 - .97$; test-retest $r = .98$) (Clausen et al., 2011; Wildes, Ringham, & Marcus, 2010).

Psychiatric comorbidity was evaluated with Millon Clinical Multiaxial Inventory-III (MCMI-III). MCMI-III is a 175-item, true-false self-report format. The inventory contains 24 clinical scales arranged into four distinct Clinical Personality Patterns, Severe Personality Pathology, Clinical Syndromes, and Severe Clinical Syndromes. MCMI-III has three stages of validation, it is closely aligned with the DSM-IV classification system, and it is associated with the comprehensive Theodore Millon's evolutionary theory (Jankowski, 2004).

Eating attitudes were assessed with the Social Cognitive Scales of Healthy Eating Behavior (SCT) (Dewar, Lubans, Plotnikoff, & Morgan, 2012). The Questionnaire was developed based on constructs from Bandura's Social Cognitive Theory and included the following scales: self-efficacy, intentions (proximal goals), situation (perceived environment), social support, behavioral strategies, outcome expectations, and expectancies.

Procedure

The patient was informed about the aim of the study: to provide a psychological intervention, designed to alleviate the negative psychological effects of BED. The patient was evaluated separately within a clinical setting. Firstly, the mental health state and psychological symptoms related to BED were assessed, through a semi-structured clinical interview. Secondly, the patient was invited to a psychological assessment of eating disorder assessment, personality, and other psychiatric comorbidities. A printed version of EDI-3, MCMI-III, and SCT were provided to the patient. The post-intervention assessment included the evaluation of the same outcomes.

HCEP Treatment

HCEP protocol consisted of 10 weekly creative-expressive sessions over 3 months. Seven main intervention were used in treatment, in line with HEP protocol (Angus et al. 2015; Glisenti et al. 2018; Mitrofan & Petre 2013):

1. *Empathic adjustment and validation* were used for setting an authentic therapeutic relationship to facilitate the client emotional resilience and develop more awareness and understanding of psychological experience.
2. *Creative meditation*, compared to other techniques used as experiential challenges to bring a person's real difficulties to the present, was used for the potential to both decrease the intensity of negative emotions and increase the intensity of positive emotions, reducing the possibility of memory distortions and helping mobilize personal resources (Răban-Motounu & Vitalia 2014).
3. *Food genogram*, a new technique innovated by this study author, consists in configuration, analyses, and reconstruction of intergenerational eating patterns by creating the constructive and experiential environment to stimulate the understanding of the psychological role of the food and eating attitudes in the transgenerational psychological dynamic. The experiential analyses within food genogram approach improve the awareness of the meaning of the past or even present eating behavior and finding a new meaning for the past emotional related eating experiences. The patient activates and creatively use their psychological resources to adopt new emotional and behavioral schemas, beginning with the rebuilding their transgenerational eating setting, followed by the "here and now" training of newly adopted strategies within the therapeutic environment.
4. *Experiential unfolding* using creative-expressive support (drawing, collage, modeling) for accessing and clarifying the emotions, cognitions, and behavior patterns related to difficult experiences.
5. *Experiential focusing* is used to guide a client to access and clarify the deeper dimensions of their experience by maintaining authentic contact with their true feelings and thoughts.
6. *Empty chair work* was used to recover the client emotions, which were captive in unresolved relationships, situations or experiences. It was facilitated the proper background for the client to express and confront significant other to develop a more differentiate psychological identity and recover and activate their psychological resources, which were kept in that maladaptive relationship.
7. *Two-chair work* was used for activating, expressing, and proper integration of the disconnected parts of Self, emotional or cognitive resources. The goal is to resolve the conflict between two sides by understanding the positive and negative role of both of them, the meaning and the effects of that psychological conflict in the personal life script.

Results and discussion

Binge eating symptomatology: Figure 1 outlines the EDI-3 baseline and post-treatment raw scores differences.

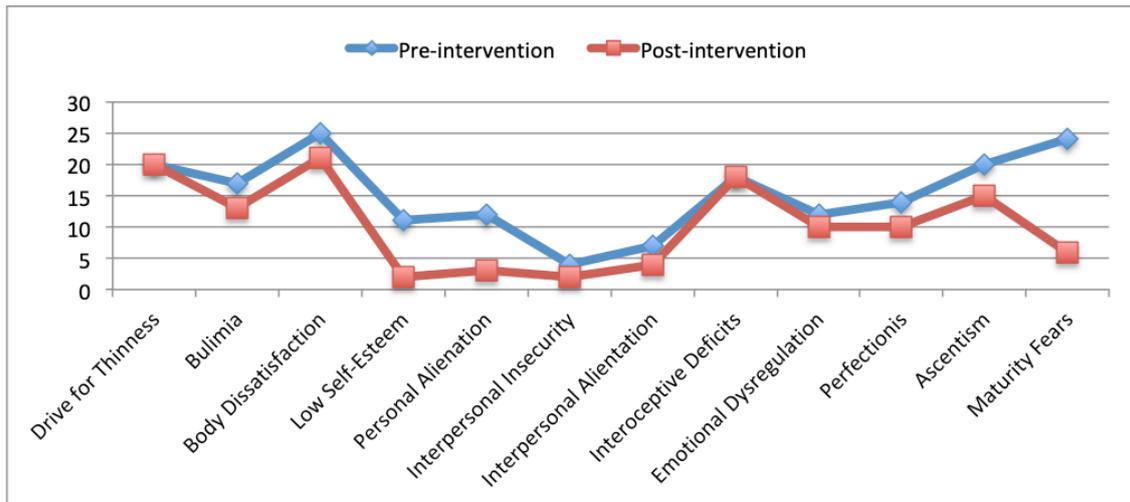


Figure 1. EDI-3 baseline and post-treatment raw scores

The most significant decrease was noted on the FM (Maturity Fears) scale (from 24 raw scores to 6), which could reflect the client 'psychological grow. In addition, the raw scores of the LSE scale (Low Self-Esteem) decrease consistently from 11 to 2, which sustain that the client is more confident. The post-assessment results show a negative significant difference of raw scores recorded at Ascetism (A), Personal Alienation (PA), Perfectionism (P), which could mean that the client tendency to self-restraint, self-denial, self-sacrifice is changing toward more balanced eating behavior. The social skills (PA) are more adequate to psychological needs. The perfectionism, which has been identified as a key feature in the development and maintenance of eating disorder, it seems to be diluted or compensated by other psychological resources. The "drive for thinness" (DT) and "interoceptive deficits" (ID) recorded no change in pretreatment and post-treatment raw scores, which could indicate that a client emotional difficulties to express their feeling in some specific context remains and should be addressed in the following intervention. On the other hand, as it could be seen from the personality assessment, the client has an avoidant personality type and related to this specific avoidant features, the psychological intervention should aim to guide and sustain the client to develop more adaptive behavior according to their personality structure. Binge-eating episodes frequency decrease from 56, over the previous 28 days, to 0 after 3 months of psychological treatment.

Eating attitude assessed with the Social Cognitive Scales of Healthy Eating Behavior (SCT) in the pretreatment stage recorded moderate level of self-efficacy to adopt healthy eating behaviors, high level of intentions, perceived environment as adequate for healthy eating, and expectancies related to healthy eating. The pre-assessment data show low social support and behavioral strategies regarding healthy eating. The post-treatment SCT scores indicate an increase of social support, which could be related to the client improvement of self-confidence and social skills and reflected on the EDI-3 scores.

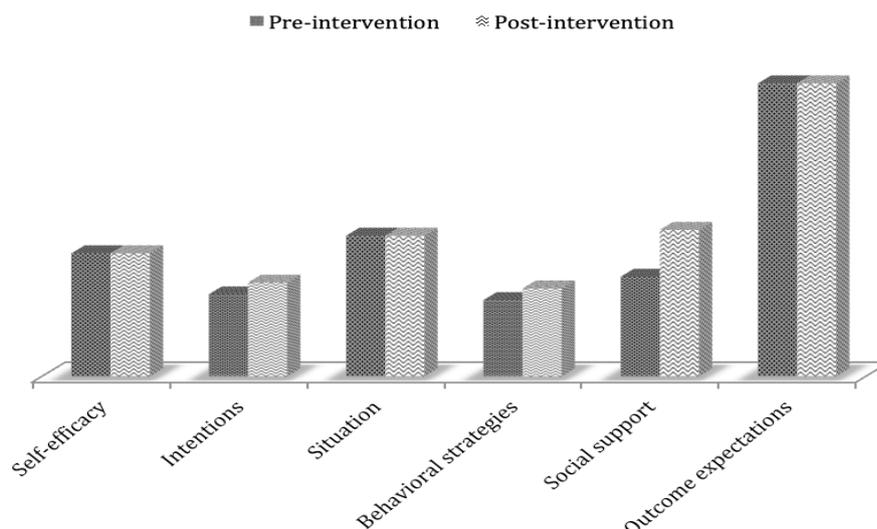


Figure 2. Social Cognitive Scales of Healthy Eating Behavior scores

The *depressive symptomatology* was significantly reduced (Table 2).

Table 2. MCMI-III Pretreatment and Post-treatment Scores

	MCMI-III BR Scores		Reliable change			
	PRE	POST	Worse	No change	Improved	Recovered
GAD¹	50	40			✓	
MDD²	77	25				✓

¹ Generalized Anxiety Disorder

² Major Depressive Disorder

Conclusions

Creative-expressive psychotherapy shows potential as a psychological treatment for BED. This case study provides evidence that HECF influences positive change in binge eating psychopathology, binge eating episode frequency and comorbid depressive symptomatology. Regarding the implications for psychotherapy practice, the results show that HECF is optimal for depth-oriented work, which is mandatory in BED conditions. The current study provides preliminary evidence to guide the development of an extensive trial to test the efficacy of HECF for BED as well as to identify the possible mechanism of change.

References

- Angus, L., Watson, J. C., Elliott, R., Schneider, K., & Timulak, L. 2015. "Humanistic psychotherapy research 1990 – 2015: From methodological innovation to evidence-supported treatment outcomes and beyond." (February) 37–41. <https://doi.org/10.1080/10503307.2014.989290>.
- Araujo, D.M.R., Santos, G.F. da S., & Nardi, A.E. 2010. "Binge eating disorder and depression: A systematic review." *The World Journal of Biological Psychiatry* 11(2–2): 199–207. <https://doi.org/10.3109/15622970802563171>.
- Bakalar, J. L., Shank, L. M., Vannucci, A., Radin, R. M., & Tanofsky-Kraff, M. 2015. "Recent Advances in Developmental and Risk Factor Research on Eating Disorders." *Current Psychiatry Reports* 17(6): 42. <https://doi.org/10.1007/s11920-015-0585-x>.

- Ball, B. 2002. "Moments of change in the art therapy process." *Arts in Psychotherapy* 29(2): 79–92. [https://doi.org/10.1016/S0197-4556\(02\)00138-7](https://doi.org/10.1016/S0197-4556(02)00138-7).
- Becker, K. R., Plessow, F., Coniglio, K. A., Tabri, N., Franko, D. L., Zayas, L. V., ... Eddy, K. T. 2017. "Global/local processing style: Explaining the relationship between trait anxiety and binge eating." *International Journal of Eating Disorders* 50(11): 1264–1272. <https://doi.org/10.1002/eat.22772>.
- Blomquist, K.K., & Grilo, C.M. 2015. Family histories of anxiety in overweight men and women with binge eating disorder: A preliminary investigation. *Comprehensive Psychiatry* 62: 161–169. <https://doi.org/10.1016/j.comppsy.2015.07.007>.
- Brockmeyer, T., Skunde, M., Wu, M., Bresslein, E., Rudofsky, G., Herzog, W., & Friederich, H.-C. 2014. Difficulties in emotion regulation across the spectrum of eating disorders. *Comprehensive Psychiatry* 55(3): 565–571. <https://doi.org/10.1016/j.comppsy.2013.12.001>.
- Clausen, L., Rosenvinge, J. H., Friborg, O., & Rokkedal, K. 2011. "Validating the Eating Disorder Inventory-3 (EDI-3): A Comparison Between 561 Female Eating Disorders Patients and 878 Females from the General Population." *Journal of Psychopathology and Behavioral Assessment* 33(1): 101–110. <https://doi.org/10.1007/s10862-010-9207-4>.
- Cuijpers, P., Reijnders, M., & Huibers, M. J. H. 2019. "The Role of Common Factors in Psychotherapy Outcomes." *Annual Review of Clinical Psychology* 15(1): 207–231. <https://doi.org/10.1146/annurev-clinpsy-050718-095424>.
- Dewar, D. L., Lubans, D. R., Plotnikoff, R. C., & Morgan, P. J. 2012. "Social cognitive scales of healthy eating behavior." *The International Journal of Behavioral Nutrition and Physical Activity* 9. <https://doi.org/10.1037/t23317-000>.
- 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>.
- Frey, B. B. 2018. "Diagnostic and Statistical Manual of Mental Disorders." In *The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation* (p. 947). American Psychiatric Association. <https://doi.org/10.4135/9781506326139.n198>.
- Garner, D. M., Olmstead, M. P., & Polivy, J. 1983. "Development and validation of a multidimensional eating disorder inventory for anorexia nervosa and bulimia." *International Journal of Eating Disorders* 2(2): 15–34. [https://doi.org/10.1002/1098-108X\(198321\)2:2<15::AID-EAT2260020203>3.0.CO;2-6](https://doi.org/10.1002/1098-108X(198321)2:2<15::AID-EAT2260020203>3.0.CO;2-6).
- Glisenti, K., Strodl, E., & King, R. 2018. "Emotion-focused therapy for binge-eating disorder: A review of six cases." *Clinical Psychology and Psychotherapy* 25(6): 842–855. <https://doi.org/10.1002/cpp.2319>.
- Godfrey, K. M., Gallo, L. C., & Afari, N. 2015. "Mindfulness-based interventions for binge eating: a systematic review and meta-analysis." *Journal of Behavioral Medicine* 38(2): 348–362. <https://doi.org/10.1007/s10865-014-9610-5>
- Hilbert, A. 2019, March 1. "Binge-Eating Disorder." *Psychiatric Clinics of North America*. Elsevier. <https://doi.org/10.1016/j.psc.2018.10.011>.
- Hilbert, A., Petroff, D., Herpertz, S., Pietrowsky, R., Tuschen-Caffier, B., Vocks, S., & Schmidt, R. 2019. "Meta-Analysis of the Efficacy of Psychological and Medical Treatments for Binge-Eating Disorder." *Journal of Consulting and Clinical Psychology* 87(1): 91–105. <https://doi.org/10.1037/ccp0000358>.
- Hilbert, A., Pike, K. M., Goldschmidt, A. B., Wilfley, D. E., Fairburn, C. G., Dohm, F.-A., ... Striegel Weissman, R. 2014. "Risk factors across the eating disorders." *Psychiatry Research* 220(1–2): 500–506. <https://doi.org/10.1016/j.psychres.2014.05.054>.
- Hinz, L. D. 2006. *Drawing from within : using art to treat eating disorders*. J. Kingsley. Retrieved from https://books.google.ro/books/about/Drawing_from_Within.html?id=nVkpYERYMIC&redir_esc=y.
- Jankowski, D. 2004. *A beginner's guide to the MCMI-III. A beginner's guide to the MCMI-III*. Washington: American Psychological Association. <https://doi.org/10.1037/10446-000>.
- Lawson, R., Emanuelli, F., Sines, J., & Waller, G. 2008. "Emotional awareness and core beliefs among women with eating disorders." *European Eating Disorders Review* 16(2): 155–159. <https://doi.org/10.1002/erv.848>
- Leehr, E. J., Krohmer, K., Schag, K., Dresler, T., Zipfel, S., & Giel, K. E. 2015, February. "Emotion regulation model in binge eating disorder and obesity - a systematic review." *Neuroscience and Biobehavioral Reviews*. <https://doi.org/10.1016/j.neubiorev.2014.12.008>.
- Leslie, S., Jeanne, C., Elliott, R., Greenberg, L. S., Watson, J., Timulak, L., & Freire, E. 2013. *Chapter 13 Research on Humanistic- Experiential Psychotherapies*.
- Linardon, J., de la Piedad Garcia, X., & Brennan, L. 2017. "Predictors, Moderators, and Mediators of Treatment Outcome Following Manualised Cognitive-Behavioural Therapy for Eating Disorders: A Systematic Review." *European Eating Disorders Review* 25(1): 3–12. <https://doi.org/10.1002/erv.2492>.

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- Mitrofan, I., & Petre, L. 2013. "Art-genogram Effects on Dyadic Relationship Dynamic as a Unifying Transgenerational Psychotherapy Technique." *Procedia - Social and Behavioral Sciences* 78: 255–259. <https://doi.org/10.1016/j.sbspro.2013.04.290>.
- Mullings, B. 2017. "A literature review of the evidence for the effectiveness of experiential psychotherapies." *Pacfa*. Retrieved from <https://www.pacfa.org.au/wp-content/uploads/2017/03/A-Literature-review-of-the-evidence-for-the-effectiveness-of-experiential-psychotherapies-Final.pdf>.
- Peat, C. M., Berkman, N. D., Lohr, K. N., Brownley, K. A., Bann, C. M., Cullen, K., ... Bulik, C. M. 2017, September. "Comparative Effectiveness of Treatments for Binge-Eating Disorder: Systematic Review and Network Meta-Analysis." *European Eating Disorders Review*. <https://doi.org/10.1002/erv.2517>.
- Petre, L. 2018. "Art Therapy for Depression: A Case Study." In *5th SGEM International Multidisciplinary Scientific Conferences on Social Sciences And Arts Sgem2018, Science and Society* (Vol. 5). <https://doi.org/10.5593/sgemsocial2018/3.2/s11.007>.
- Răban-Motounu, N., & Vitalia, I. L. 2014. "Awareness Techniques and Emotional Change." *Journal of Experiential Psychotherapy* (Vol. 17). Retrieved from http://www.jep.ro/images/pdf/cuprins_reviste/no_67_1_p3-11.pdf.
- Spielmanns, G. I., Benish, S. G., Marin, C., Bowman, W. M., Menster, M., & Wheeler, A. J. 2013. "Specificity of psychological treatments for bulimia nervosa and binge eating disorder? A meta-analysis of direct comparisons." *Clinical Psychology Review* 33(3): 460–469. <https://doi.org/10.1016/j.cpr.2013.01.008>.
- Sporild, I. A., & Bonsaksen, T. 2015. "Therapeutic factors in expressive art therapy for persons with eating disorders." *Groupwork* 24(3): 46–60. <https://doi.org/10.1921/GPWK.V24I3.788>.
- Udo, T., McKee, S. A., & Grilo, C. M. 2015. "Factor structure and clinical utility of the Beck Depression Inventory in patients with binge eating disorder and obesity." *General Hospital Psychiatry* 37(2): 120–125. <https://doi.org/10.1016/j.genhosppsych.2014.11.011>.
- Wildes, J. E., Ringham, R. M., & Marcus, M. D. 2010. "Emotion avoidance in patients with anorexia nervosa: initial test of a functional model." *The International Journal of Eating Disorders* 43(5): 398–404. <https://doi.org/10.1002/eat.20730>.