ACCEPTANCE AND COMMITMENT THERAPY (ACT) AND BROAD FORM OF ENHANCED COGNITIVE BEHAVIORAL THERAPY (CBT-EB) IN CLIENTS WITH EATING DISORDERS AND CLINICAL PERFECTIONISM: A PILOT STUDY

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INTRODUCTION

Perfectionism appears to be a highly present variable in clients with eating disorders and could therefore be considered an individual risk factor in the development of these disorders (Lombardo et al., 2012). Literature highlights the positive association between perfectionism and the level of symptoms related to eating disorders (Bardone-Cone, 2007; Garriz et al., 2021), and the role that perfectionism can play in maintaining these symptoms (Egan et al., 2011). Perfectionism is believed to reinforce persistence in pathological behaviors typical of anorexia nervosa, such as dietary restriction and the relentless pursuit of a "perfect" weight or shape, and a continuing perception of personal failure and negative evaluation from others (Bardone-Cone, 2007; Fairburn, Cooper, & Shafran, 2003).

INSTRUMENTS AND PROCEDURE

As suggested by NICE guidelines (2017), CBT is indicated as one of the therapies to be considered for the psychological treatment of eating disorders. Several RCT studies show that Enhanced CBT (CBT-E) either in the focused form (CBT-Ef) or the broad form (CBT-Eb) is an effective treatment for the majority of outpatients with an eating disorder (Fairburn, 2008; Fairburn et al., 2003; 2009; 2015).

Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999) is a third-wave cognitive behavior therapy based on Relational Frame Theory (RFT; Hayes, Barnes-Holmes & Roche, 2001). From the systematic review of RCTs by Yildiz et al. (2020) ACT intervention has been shown to have long-term positive effects on lifestyle and help maintain behavioral changes. Moreover, ACT showed substantial improvements in clients who presented diagnoses related to perfectionism (e.g. Twohig et al., 2018; A-Tjak et al., 2015; Craske et al., 2014; Arch, Eifert, et al., 2012), and a recent dissertation by Ong (2019), which aimed to examine the effectiveness of a 10-session ACT protocol in clients with maladaptive behavioral pattern like perfectionism, highlighted the efficacy of ACT in this clinical context.
Further research has highlighted how ACT can be an effective intervention to reduce eating disorder symptoms and body image dissatisfaction, as well as decrease the demand for specialist care (Fogelkvist et al., 2020; Selvi et al., 2021).
Considering that several reviews have shown that ACT is an effective intervention for the adult population (A-Tjak et al., 2015), Harris et al. (2020), conducted a systematic review in order to examine the literature on ACT interventions for the mental well-being of children and adolescents. This study showed that ACT is a promising intervention for the mental health of adolescents as well.

The pilot study combines ACT and CBT-Eb with clients with eating disorders and clinical perfectionism. We expect that CBT-Eb combined with ACT will reduce the severity of the Anorexia Nervosa, in clients with clinical perfectionism; we will remeasure the results at 6 months post-treatment. This pilot study has the aim to assess the feasibility of client recruitment, the entire study protocol application, and the use of data collection instruments to obtain variability estimates for sample-size calculations for a future full-scale trial.

The project started in Autumn 2020 but has suffered slowdowns due to the Covid-19 pandemic.
In March 2021 we started the process of recruitment and at the moment the protocol is in progress and the CBT-Eb was performed on 7 clients. We plan to complete the first full study protocol cycle within the end of 2021.

OUTCOMES

The primary outcome is the change in severity of the Anorexia Nervosa, as measured by the scores of the Eating Disorders Inventory (EDI.3, Giannini et al., 2008). Assessments will be performed before the beginning of the intervention (BASELINE), at the end of the CBT-Eb sessions (FOLLOW-UP 1), at the end of CBT-Eb plus ACT sessions (FOLLOW-UP 2) and after 6 months post-treatment (FOLLOW-UP 3). The treatment will consist of 20 CBT-Eb plus 10 ACT sessions for clients with BMI>17.5 and 40 CBT-Eb plus 10 ACT sessions for clients with BMI≤17.5.

The secondary outcomes (alphabetically ordered), assessed at baseline and at follow-ups 1-2-3, are:

- Clinical perfectionism as measured by the Multidimensional Perfectionism Scale (MPS, Frost, Marten, Lahart, & Rosenblate, 1990)
- Eating disorder as measured by Eating Disorder Examination (EDE, Fairburn et al., 1993)
- Global functioning as measured by the Global Assessment of Functioning (GAF)
- Mindfulness as measured by Mindful Attention Awareness Scale for people over 21 years old (MAAS, Brown, & Ryan, 2003)
- Mindfulness as measured by the Child Acceptance and Mindfulness Measure for people under 21 years old (CAMM, Greco, Baer, & Smith, 2011)
- Psychological Inflexibility as measured by the Avoidance and Fusion Questionnaire for Youth for people under 21 years old (AFQ-Y17, Greco, Lambert, & Baer, 2008)
- Psychological Inflexibility as measured by the Cognitive Fusion Questionnaire for people over 21 years old (CFQ-13, Gillanders, Bolderston, Bond, Dempster, Campbell, Kerr, Tansey, Clarke, Remington, Flaxman, & Deans, 2010)
- Psychopathological conditions in terms of the Hopkins Symptom Checklist (SCL-90; Derogatis et al. 1974)
- Psychosocial damage as measured by the Clinical Impairment Assessment Questionnaire (CIA, Bohn & Fairburn, 2008)
- Self-compassion as measured by the Self-compassion short scale (SCS-SF, Raes, Pommier, Neff, & Van Gucht, 2011)
- Values as measured by the Valued Living Questionnaire (VLQ, Wilson & Groom, 2002).

DESIGN

This pilot study has a not randomized 1 group design. Assessments for the outcomes will be performed before beginning the intervention (BASELINE), at the end of the CBT-Eb sessions (FOLLOW-UP 1), at the end of CBT-Eb plus ACT sessions (FOLLOW-UP 2) and after 6 months post-treatment (FOLLOW-UP 3). The sample of clients will be constituted by clients with Anorexia Nervosa and Clinical Perfectionism.

TREATMENT

The CBT-E protocol for BMI >17.5 is based on 20 sessions modulated in four stages:	The CBT-E protocol for BMI ≤17.5 is based on 40 sessions modulated in four stages:	The ACT protocol for adolescents is based on the 10 sessions of Turrell & Bell (2016) once a week:
Stage 1 (1st to 4th week): 2 sessions per week to build the personalized formulation and to help the client to face the behaviors that modify the energetic budget Stage 2 (5th to 6th week): 1 session per week for the revision of the personalized formulation by the analysis of the residual factors of maintenance Stage 3 (7th to 14th week): 1 session per week to address the core mechanisms (internal or external) that are maintaining the client eating disorder Stage 4 (15th to 20th week): 1 session every two weeks, with the focus on maintaining the progress that has already been made and reducing the risk of relapse.	Stage 1 (1st to 4th week): 2 sessions per week to build the personalized formulation, to help the client to face the behaviors that modify the energetic budget and to provide a psychoeducation about underweight effects Stage 2 (5th to 6th week): 1 session per week for the revision of the personalized formulation by the analysis of the residual factors of maintenance Stage 3 (7th to 32nd week): 1 session per week to achieve weight restoration and to address the core mechanisms (internal or external) that are maintaining the client eating disorder Stage 4 (33rd to 40th week): 1 session every two weeks, with the focus on maintaining the progress that has already been made and reducing the risk of relapse.	Session 1: The Assessment Session 2: Creative Hopelessness Session 3: Identifying Values Session 4: Setting Goals: Putting values into action Session 5: Willingness and allowing of feelings Session 6: Defusing from thoughts Session 7: Defusion from "story" Session 8: Self-as-Context Session 9: Self-Compassion Session 10: Pulling it all together

CLINICAL ASSESSMENT

Eating Disorder Examination (EDE, Fairburn et al 1993) **Eating Disorders Inventory** (EDI.3, Giannini et al. 2008) **Impairment Assessment Questionnaire** (CIA, Bohn & Fairburn, 2008)	**Hopkins Symptom Checklist** (SCL-90, Derogatis et al. 1974) **Clinical Impairment Assessment Questionnaire** (CIA, Bohn & Fairburn, 2008) **Global Assessment of Functioning** (GAF, Endicott et al., 1976; APA, 1994)
Multidimensional Perfectionism Scale (MPS, Frost, Marten, Lahart, & Rosenblate, 1990)	**Child Acceptance and Mindfulness Measure** (CAMM, Greco, Baer, & Smith, 2011) **Mindful Attention Awareness Scale** (MAAS, Brown & Ryan, 2003). **Valued Living Questionnaire** (VLQ, Wilson & Groom, 2002). **Self-compassion Short Scale** (SCS-SF, Raes, Pommier, Neff, & Van Gucht, 2011). **Cognitive Fusion Questionnaire** (CFQ-13, Gillanders, Bolderston, Bond, Dempster, Campbell, Kerr, Tansey, Clarke, Remington, Flaxman, & Deans, 2010). **Avoidance and Fusion Questionnaire for Youth** (AFQ-Y17 Greco, Lambert, & Baer, 2008).

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