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An update on the strategies and procedures of enhanced cognitive behaviour therapy for adolescents with eating disorders

Riccardo Dalle Grave, MD[1], Massimiliano Sartirana, PhD[2], Simona Calugi, PhD[1]

[1] *Department of Eating and Weight Disorders, Villa Garda Hospital, Garda (VR), Italy*
[2] *Associazione Disturbi Alimentari (ADA), Verona (VR), Italy*

Key words

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Abstract

Enhanced Cognitive Behaviour Therapy (CBT-E) has shown efficacy in treating adults with anorexia nervosa and bulimia nervosa and has been successfully adapted for use with adolescents with eating disorders. Multiple cohort studies involving adolescents aged between 12 and 19 years have evaluated the effectiveness of CBT-E in younger populations. The promising results from these studies have led the National Institute for Health and Clinical Excellence (NICE) to recommend CBT for eating disorders in adolescents.

CBT-E offers several advantages for adolescent patients. Its collaborative nature is particularly well suited to engaging ambivalent young patients that are in a very egosyntonic phase of their eating disorder. Additionally, the transdiagnostic scope of CBT-E is a significant benefit, as it can address a wide range of eating disorders commonly seen in adolescents.

This article provides an updated overview of the core strategies and procedures tailored to younger patients undergoing CBT-E, highlighting recent modifications. It also underscores the key differences between the adolescent and adult versions of CBT-E, ensuring that the treatment is appropriately customized to meet the specific needs of adolescent patients.

Introduction

Enhanced Cognitive Behaviour Therapy (CBT-E), an evidence-based treatment for adults with eating disorders (National Institute for Health and Care and Clinical Excellence, 2017), has been tailored for adolescents by the Villa Garda team to address the specific developmental and contextual needs of this population (Dalle Grave & Calugi, 2020). While retaining the core principles of the original adult-focused CBT-E model (Fairburn, 2008), this adaptation incorporates important modifications to ensure its effectiveness and suitability for younger patients.

The rationale for adapting CBT-E for adolescents was based on two clinical observations: (i) adolescents and adults exhibit similar eating disorder psychopathology, including the overvaluation of shape and weight, preoccupation with shape and weight, dietary restraint and restriction, excessive exercise, purging behaviours, body checking and avoidance, and low weight; and (ii) adolescents, like adults, can be actively and effectively engaged in the treatment process. Clinical observations were supported by a study using network analysis, which found similar network structures of the eating disorder psychopathology in 724 adult and 547 adolescent patients with anorexia nervosa (Calugi et al., 2020).

Riccardo Dalle Grave (✉) rdalleg@gmail.com

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CBT-E possesses several additional features that make it particularly well-suited to addressing the needs of younger patients (Dalle Grave & Calugi, 2020). Its collaborative approach fosters a sense of control, which aligns well with the developmental needs of younger individuals, for whom autonomy, independence, and personal agency are highly significant themes. Furthermore, CBT-E is straightforward to understand and implement, making it accessible and appealing to younger patients. Its flexibility and individualized nature allow it to be tailored to adolescents' unique physical and cognitive developmental stages. Additionally, its transdiagnostic framework enables it to address all categories of eating disorders, making it suitable for a wide range of adolescent patients.

However, adolescents present two distinctive features that have required the adaptation of CBT-E. First, most adolescents are in an extreme egosyntonic phase of the eating disorder, often being completely unaware of having a problem, and, in many cases, they are challenging to engage in treatment. These characteristics have prompted the creation of treatments that separate the illness from the individual, a concept is known as "externalization", and empower parents and clinicians to take decisive action against the disorder itself, regardless of young patient readiness or willingness to engage in the process (Lock & Le Grange, 2013). This strategy contrasts with the approach used in CBT-E, which does not separate the eating disorder from the patient. Instead, CBT-E actively involves the patient in the treatment process, encouraging them to take ownership of addressing their disorder.

Second, in the adult version of CBT-E, significant others (such as friends, partners, or parents) are involved only if the patient agrees that their participation will support the treatment. However, due to adolescent patients' age and specific circumstances, parental involvement is necessary in most cases to ensure effective implementation of the treatment.

The adolescent version of CBT-E is comprehensively outlined in a manual (Dalle Grave & Calugi, 2020). This article provides an updated overview of the primary strategies and procedures tailored for young patients with eating disorders undergoing CBT-E, highlighting recent modifications informed by our clinical experience with this population. It also emphasizes the key differences between the adolescent and adult versions of CBT-E.

Treatment structure

The length of the treatment is flexible and depend by the nature of the patient's eating disorder. In adolescent with low weight that need to regain weight is delivered over 30–40 fifty-minute sessions, typically spanning 30–40 weeks depending on the weight to be regained and the difficulties meet by the patient. The treatment begins with two assessment/preparation sessions and is structured into three main steps to achieve weight restoration (Figure 1)[1]. Review sessions occur every four weeks and at 4-, 12-, and 24-week post-treatment.

For adolescents who do not require weight regain, CBT-E follows a similar structure, typically comprising 20 sessions over 20 weeks. However, for those with minimal eating disorder psychopathology (e.g., patients with binge-eating disorder or mild forms of bulimia nervosa), the treatment can be condensed to 10–12 sessions over 10–12 weeks.

In all cases, Step One is intensive, consisting of twice-weekly sessions followed by a review. Step Two transitions to weekly sessions for patients who are not underweight, while it continues with twice-weekly sessions until stable weight regain is achieved in underweight patients. Finally, Step Three concludes with sessions scheduled every two weeks.

CBT-E for adolescents, like the adult version, can be delivered in two forms (Fairburn, 2008):

1. Focused form: Targets only the eating-disorder psychopathology and is recommended as the default option for most patients.
2. Broad form: Addresses eating-disorder psychopathology along with additional mechanisms maintaining the disorder, such as clinical perfectionism, core low self-esteem, marked interpersonal difficulties, and mood intolerance when these play a significant role.

[1] The adult version of CBT-E is structured into four "Stages" to address eating disorder psychopathology, whereas the adolescent version uses three "Steps" reflecting the common need for weight regain and the need to address other egosyntonic features of the eating disorder (e.g., extreme dietary restraint and restriction, excessive exercise). These Steps help adolescents: (i) decide to address weight regain and tackle the other egosyntonic features of their eating disorder, (ii) regain a healthy weight while addressing the eating disorder psychopathology, and (iii) maintain weight and prevent relapse. This approach is preferred by adolescents, as it focuses on understanding the implications of change in Step One, rather than immediately confronting the egosyntonic features of their disorder.

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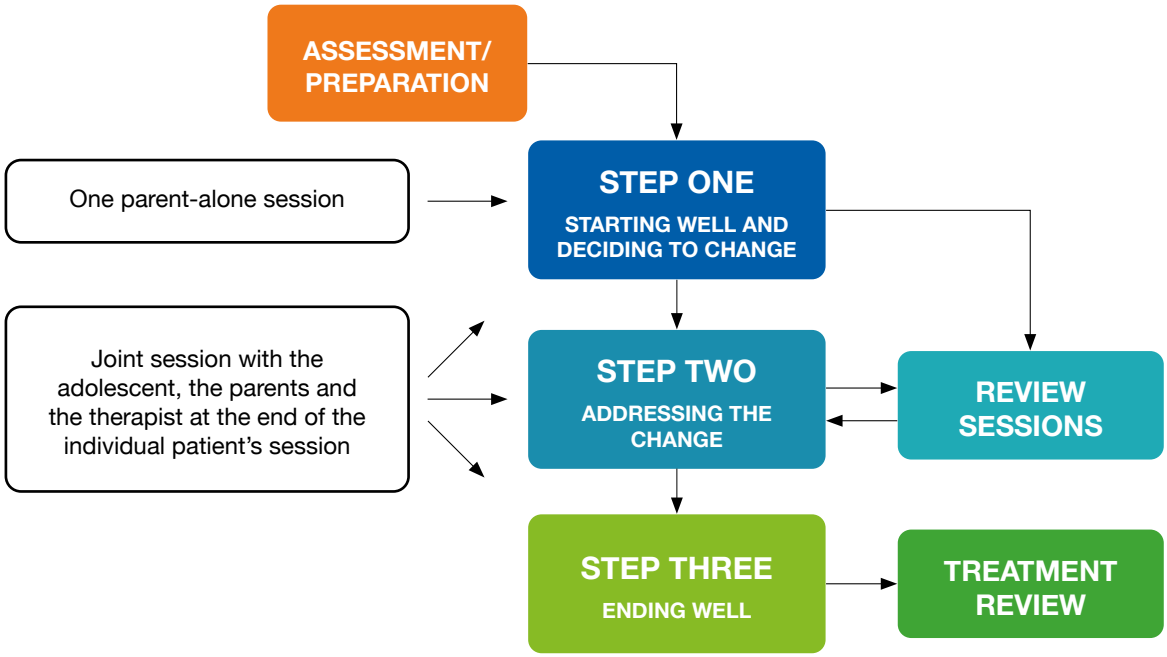

Figure 1. The CBT-E map for adolescents with eating disorders

Assessment and preparation

The adolescent CBT-E version incorporates new strategies and procedures to assess and engage adolescents with eating disorders in the decision to begin treatment. This is crucial because many adolescents, particularly those who are low weight, may not perceive their eating disorder as a problem and might even value certain aspects of their psychopathology. As a result, they are often highly ambivalent towards treatment. The primary goals of the initial assessment and preparation session are therefore to engage the patient by establishing a positive therapeutic relationship and to determine the specific nature of their eating disorder.

We found it very helpful to request parental consent for the CBT-E clinician to meet with the adolescent alone during the initial session. The one-to-one approach with the adolescent is used to facilitate the exploration of their perspective on consultation and the nature of their problems, and to lay the foundations for a sound therapeutic relationship.

A key initial question is to ask the adolescent whether they came to the consultation voluntarily or felt pressured by their parents. If, as is often the case, the adolescent did not attend of their own free will, the therapist should acknowledge their emotional discomfort and express understanding of how challenging it might feel to be in an unwanted situation. The ambivalent patients are also reassured emphasizing that the therapist is working entirely on their behalf, not as an agent of their parents.

The second key question is to ask adolescent patients if they agree on the main purpose of the interview, which is to exchange information about any problems they may have. In most cases, even very ambivalent patients accept this non-threatening goal, reassured by the fact that they will not be forced to start treatment immediately.

After assessing the nature and severity of the patient's eating disorder and exploring prior treatments, the therapist asks the patient, "Do you think your control of eating is a choice or a problem?" Responses typically vary; some say, "it's a choice," others say, "it's a problem," and some say "both." The therapist avoids disputing the patient's belief that it is a choice but, if they acknowledge it as a problem, asks them why they think so. Common reasons include deteriorating relationships with peers and parents, ongoing concerns about eating, binge-eating episodes, and difficulty focusing on studies. Fewer patients express concerns about their physical health.

Patients are then informed about two main theoretical models that explain why a young person continues to engage in strict dieting or other extreme weight control behaviours and maintains a low weight despite the harm

they cause: the disease model and the CBT-E psychological model. The therapist educates the patients about the differences between these models, along with the treatment implications of each (Dalle Grave, 2023) (see Table 1).

To help the young patient to understand the CBT-E psychological model, the therapist draws a generic formulation of the transdiagnostic cognitive behaviour theory adapted to the patient's features collected during the assessment (Figure 2). The therapist also underlines that it will be highly personalized during the treatment.

Next, the therapist explains the nature of CBT-E and, referring to the generic formulation, they draw an arrow from the "eating problem" pie chart to a "without eating problem" pie chart, highlighting the treatment's main goal: reducing shape and weight overvaluation and fostering a more balanced self-evaluation. The therapist explains that this requires addressing the key elements of the eating disorder pie chart, which sustain the overvaluation of shape and weight. However, they acknowledge that aspects like a strict diet and low weight may be seen as achievements rather than problems and are associated with a sense of realization. To address this, the first step of CBT-E, Step One - Starting Well and Deciding to Change, focuses on helping patients understand the individual processes maintaining the eating problem disorder and consider the implications of change, including potential weight regain, rather than immediately restoring weight. Adolescents often value Step One's focus on understanding the psychological maintaining mechanisms of their eating problem over weight regain, their active role in decision-making, and the absence of external control.

At the end of Step One, patients decide whether to pursue weight regain. If they agree, treatment proceeds to Step Two - Addressing the Change; otherwise, it is discontinued. Step Two focuses on personalized weight restoration and addressing other factors maintaining the eating disorder psychopathology, such as overvaluation of shape and weight, extreme and rigid dietary rules, events and associated mood changes influencing eating,

Step Three - Ending Well, the final phase of CBT-E, aims to maintain weight, conclude therapy, and reduce relapse risk.

After presenting the treatment and allowing patients to ask questions and voice concerns, the therapist encourages them to reflect on the proposal after the first assessment and preparation session. Patients are asked to read the information sheet list on the CBT-E for adolescents, to evaluate the pros and cons of beginning Step One at home (not to change), and to prepare written questions for discussion at the next appointment, which will focus on addressing their thoughts and concerns.

At the end of the initial assessment and preparation session, a joint interview with the patient and their parents is

Table 1. The disease model and the CBT-E psychological model of eating disorders and their implications for the treatment

The **disease model** suggests that the behaviours associated with eating disorders—such as strict dieting, fear of weight gain, and an inability to recognize the severity of low body weight—are symptoms of an illness, such as anorexia nervosa, bulimia nervosa, or another eating disorder. In this model, patients are viewed as being unable to control the illness and are therefore dependent on external control from parents or healthcare professionals. Treatment under this model involves a passive role for the patient, where they are told what to do and must follow instructions to recover. This approach underpins treatments like family therapy and medical interventions for eating disorders.
In contrast, the **CBT-E psychological model** offers a psychological explanation for the eating disorder, focusing on how the patient's self-evaluation is primarily based on shape, weight, eating, and their control. This dysfunctional self-evaluation can make dieting and low weight feel rewarding, despite their negative effects. According to this model, patients are encouraged to understand how their eating disorder functions and recognize the dysfunctionality of their self-evaluation system. Rather than being told what to do, patients take an active role in treatment, working with the therapist to develop and implement functional solutions to change their mindset and behaviours. The goal is to help the patient regain a balanced and stable self-evaluation, ultimately leading to recovery. This approach is central to CBT-E, where the patient plays an active role in understanding the psychological processes maintaining their eating problem (including their perceived positive function of eating, shape and weight), deciding to address them, and during the process of change.

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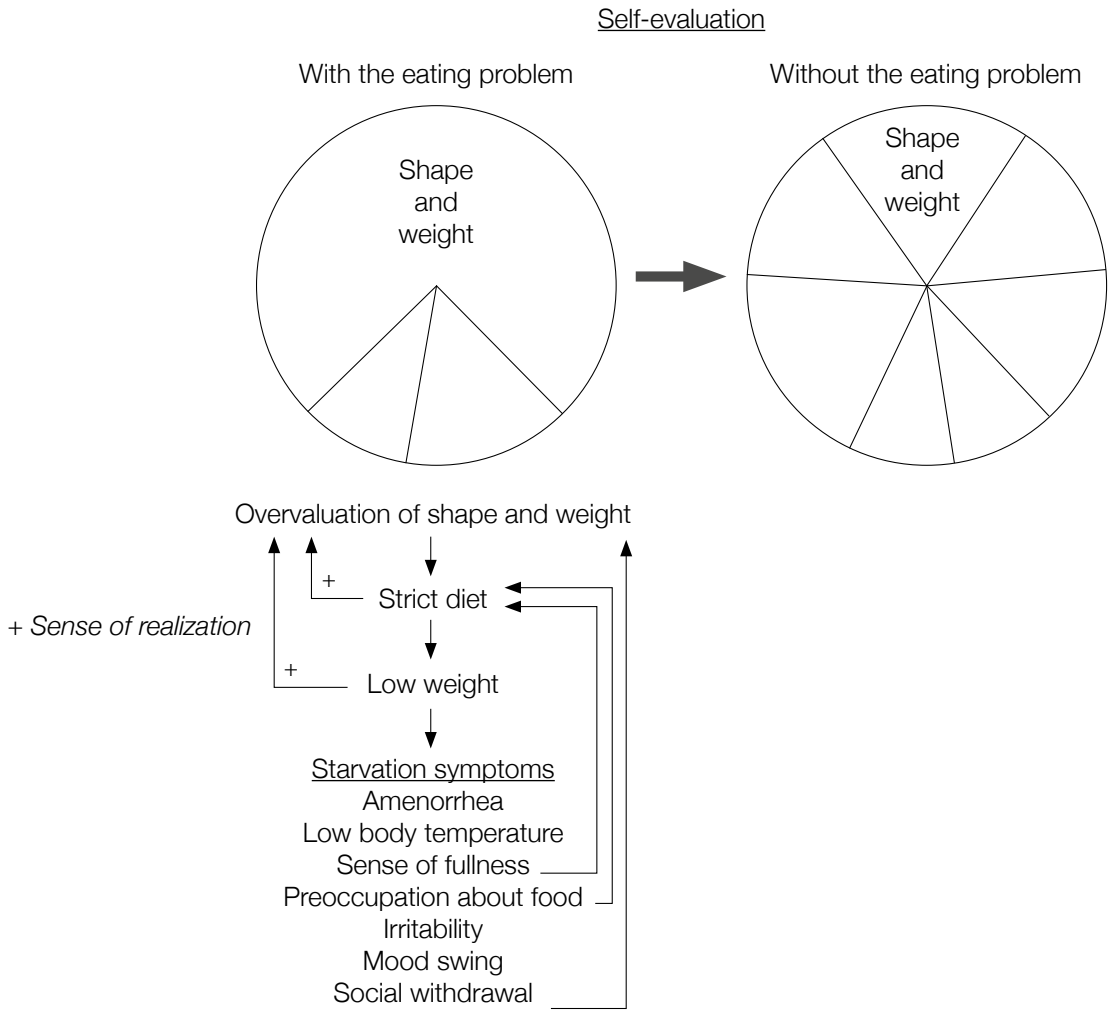

Figure 2. An example of a generic transdiagnostic formulation developed with a low weight adolescent with an eating disorder during the assessment and preparation session

conducted. The purpose is to provide parents with information about their child's eating disorder, the distinction between the disease model and the psychological nature of CBT-E, and their role as "helpers" rather than "controllers" in the treatment. If the parents agree with the proposed approach, they are encouraged to support their child in weighing the pros and cons of starting the Step One of the treatment, adopting a curious rather than authoritarian stance. It is emphasized that the final decision rests entirely with the adolescent, as the treatment is unlikely to succeed if they feel pressured into participating.

In the second assessment and preparation session, typically held a week after the first, the patient is seen alone to review their list of pros and cons for starting Step One of CBT-E. The focus is on strengthening their motivation for starting the first step of the treatment. For ambivalent patients, we encourage them to "take the plunge" and try Step One as a trial, emphasizing that its goal is not immediate weight restoration but understanding and evaluating the psychological processes maintaining their eating problem and the implications of change. A second joint interview with the patient and their parents is conducted following the second assessment and preparation session. If the patient has decided to proceed with treatment, the therapist informs the parents during this meeting and schedules a separate appointment with them during the first week of treatment to further discuss their role and involvement.

N.B. The patient's physical health is of particular concern in younger patients, and periodical medical examination is necessary to assess and promptly address any physical signs and symptoms of medical instability.

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Step One - Starting Well

Step One spans four weeks, with patients attending two 50-minute sessions per week. For low weight patients, the duration of Step One may be shortened if they choose to address weight regain after the initial four sessions. In the first week of treatment, parents participate in a 50-minute evaluation session and two or three brief joint sessions with the patient, held 15 minutes after introducing the regular eating procedure.

Table 2 shows the main procedures of Step One and when they are implemented time of its introduction.

Adoption of an engaging style

A major challenge in working with adolescent patients is effectively engaging them, as many may begin Step One with ambivalence or reluctantly due to parental pressure, rather than their own decision. Therapists delivering the adolescent version of CBT-E are advised to adopt an engaging style characterized by the following principles:

- Awareness: Understand the ego-syntonic nature of low weight and other expressions of the eating disorder psychopathology.
- Collaboration: Foster a collaborative relationship with the patient.
- Curiosity: Stimulate the patient's interest in the CBT-E psychological model.
- Respect: Avoid stigmatisation and respect the patient's individuality.
- Empathy: Acknowledge the patient's challenges in making changes.
- Genuineness: Be authentic, demonstrate genuine interest in the patient, and actively engage with their life experiences.
- Active listening: Listen attentively, seek clarification, show curiosity, and ask thoughtful questions to assist the patient in synthesising information and reaching independent conclusions.
- Encouragement: Prompt the patient to ask questions and explore their own uncertainties.
- Non-judgment: Refrain from commenting on the patient's assumptions during the initial phases of treatment.
- Hope and efficacy: Instil optimism and reinforce the patient's sense of self-efficacy.
- Transparency and patience: Be honest, maintain focus, and allow the therapeutic process to progress at the patient's pace.
- Empowerment: Enable the patient to make informed choices about their treatment.
- Experimental Approach: Frame changes as experiments to reduce pressure and foster exploration.

Table 2. Step One Procedures and when they are implemented

Week number	**1**		**2**		**3**		**4**	
Session number	**0**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Adoption of an engaging style	√	√	√	√	√	√	√	√
Assessment of the eating problem	√	(√)						
Creation of the personal formulation	√	(√)						
Self-monitoring	√	√	√	√	√	√	√	√
Collaborative weighing		√		√		√		√
Eating Problem Check List		√		√		√		√
Regular eating			√	√	√	√	√	√
Personalized education	√	√	√	√	√	√	√	√
Helping to think about the change*				√	√	√	√	√
Involving parent		√**	√		√			√

* Step One may be concluded any time after session #3, if patients who are low weight choose to address weight regain
** One session with parents alone in week one

Assessment of the eating problem

The primary focus should be on the current state of the patient's eating disorder and the factors maintaining it, with particular attention to the eating disorder's features exhibited during the preceding four weeks (28 days). For adolescent patients who are low weight, it is essential to consider clinical characteristics resulting from low weight. These can be evaluated by asking whether the patient has experienced any physical symptoms or psychological and interpersonal changes that emerged only after the weight loss.

Creation of the personal formulation

The strategy for creating a personal formulation is like that used in the adult version of CBT-E. However, with younger patients, it is particularly important to use language they can relate to and avoid overly technical terms. The initial formulation should focus on eating-disorder features and key maintenance processes from the past 28 days, avoiding excess detail to prevent patient confusion. It is provisional and will be adjusted as treatment uncovers additional mechanisms.

For low-weight adolescents, the therapist should start by discussing the negative effects of being low weight (e.g., feeling cold, social withdrawal), identify behaviors causing the low weight (e.g., dieting, excessive exercise), explore reasons behind these behaviors, and assess their link to overvaluation of shape and weight. Finally, the therapist should emphasize how secondary symptoms of being low weight contribute to maintaining the eating disorder. For example, delayed gastric emptying may cause a sense of fullness interpreted as overeating, leading to stricter dietary restrictions. Caloric restriction can result in food preoccupation, fostering extreme dietary rules. Additionally, social withdrawal due to weight loss often promotes self-absorption and isolates patients from external influences that could challenge their overvaluation of eating, shape, weight, and control.

Weight checking or avoidance is also incorporated into the formulation to help the patient understand how these behaviours contribute to increased preoccupation with shape and weight, thereby intensifying strict dieting behaviours.

It is also important to include in the formulation the sense of realization associated with adhering to a strict diet and achieving a low weight. Additionally, for some adolescent patients, the formulation may need to address other reinforcers that contribute to maintaining a strict diet and low weight. These can include social reinforcers for weight control, interpersonal reinforcers such as increased parental attention, and negative reinforcers such as avoiding challenging situations at school, in sports, or in relationships (see Figure 3).

For adolescents who are not low weight with binge-eating episodes, the therapist should begin by exploring binge eating, discussing what occurs afterward, and

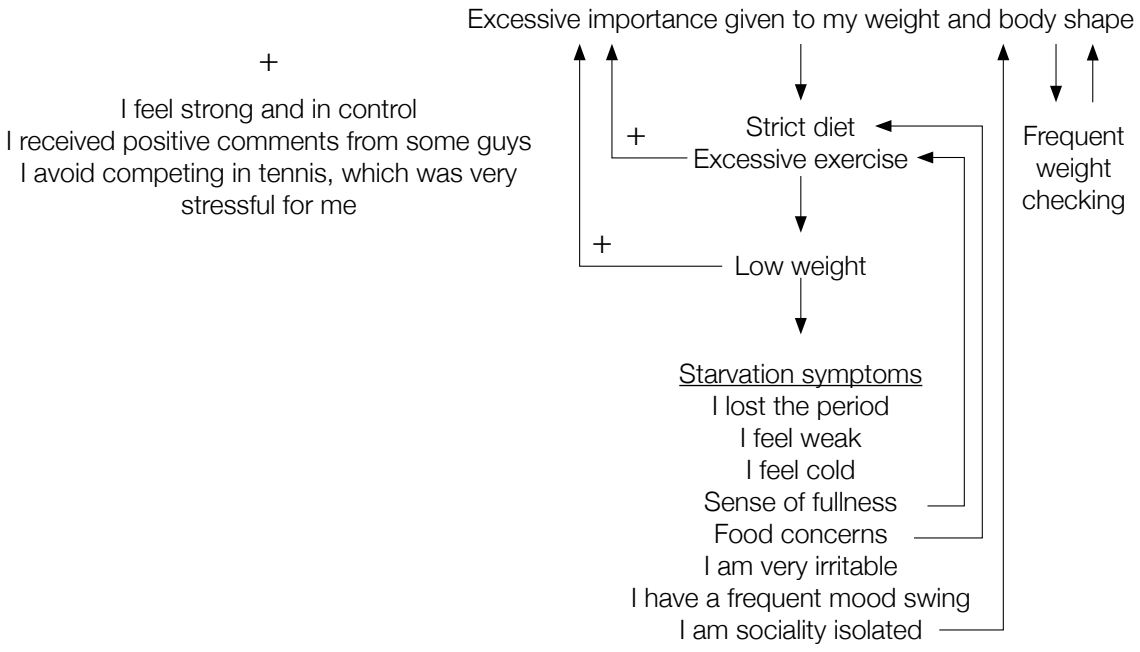

Figure 3. An example of a personal formulation collaboratively developed with a low-weight adolescent in Step One of CBT-E

explaining the cycle of binge eating and compensatory behaviours (if present). Next, the therapist should examine the link between binge eating, rigid dietary rules, and adverse events or moods. They should then explore the reasons behind the dietary rules and their connection to the overvaluation of shape and weight. Finally, the therapist should help patients recognize how dietary rules maintain binge eating, which reinforces their concerns about control over eating, weight, and shape.

Patients are asked to review their written formulation before the next session, reflecting on its relevance, identifying additions or omissions, and suggesting any adjustments. A distinctive strategy of the adolescent version of CBT is asking the patients with low weight to read the handout on the effects of being low weight containing a detailed description of the Minnesota Starvation Experiment (Dalle Grave et al., 2011; Garner, 1977; Keys et al., 1950) and include in the formulation any newly recognized effects resulting from weight loss that were not previously mentioned.

Real-time monitoring

Real-time monitoring is a core CBT-E procedure, requiring immediate recording of eating behaviours and related events, thoughts, physical sensations, and emotions using a designated monitoring record. The adolescent monitoring record mirrors the adult version, but Column V/L can be omitted if such behaviours are absent or replaced with "E" for excessive exercising when relevant.

Collaborative weighing

The procedure, as in the adult version of CBT-E, consists of: (1) weekly weighing and recording; and (2) personalized education about weight and weighing. However, the CBT-E adolescent version incorporates some important modifications.

Unlike the adult version, adolescents are not introduced to World Health Organization BMI classifications (e.g., underweight, normal weight, overweight, obesity) (World Health Organization, 2000). Terms such as "overweight" or "obesity" are avoided, while the term "low weight" is used to describe patients experiencing symptoms of starvation, even if their BMI does not fall within the underweight classification. For these patients, the weight graph excludes lines denoting the "normal weight" range and instead includes a line representing the minimum BMI-for-age percentile equivalent to an adult BMI of 19 (Figure 4). For all other patients, no lines are included on the weight graph.

Unlike the adult version of CBT-E, which targets a BMI between 19 and 20, the healthy weight range for adolescents is personalized. It should correspond to a BMI above the 25th percentile that can be maintained without resorting to extreme weight-control behaviors and is consistent with both physical health and developmental needs. Further details are provided in the Underweight and Undereating module discussed later.

The collaborative weighing procedure in the adolescent version of CBT-E follows the same structure as the adult version:

1. Weighing and recording: Patients are weighed weekly at the beginning of each session, and the therapist and patient record the latest reading on the weight chart.
2. Interpretation: The therapist and patient review the trend by examining the past four weeks of readings, guided by the principle: "it is impossible to interpret a single reading".
3. Consistency: The procedure is repeated weekly. Regular collaborative weighing and interpretation help reduce weight concerns, fostering greater willingness in patients to modify their eating habits.

The Eating Problem Check List (EPCL)

The EPCL is a 16-item self-report questionnaire developed by our team to assess eating-disorder behaviors and psychopathology over the previous seven days (Dalle Grave et al., 2019). Completed weekly by young patients following the joint review of monitoring records, it facilitates updates to the personal formulation, highlights positive changes, and draws attention to eating disorder features that still require intervention or obstacles to change.

By entering EPCL data into the weekly summary spreadsheet, both therapist and patient can clearly track which disorder features have improved, and which remain unchanged. This visual tracking also illustrates how changes in behaviours (e.g., weekly in-session weighing regular eating) can lead to shifts in attitudes (e.g., reduced weight and eating concerns) over time.

Establishing regular eating

Establishing a regular eating pattern focuses on "when" to eat rather than "what" or "how much", aiming for patients to eat three planned meals and two or three snacks daily, without eating between these times (3+2/3+0 procedure). Patients are encouraged to prioritize this pattern, plan their meals and snacks on the monitoring record, and avoid gaps longer than four hours between eating.

To manage urges to deviate from the plan, patients use the "things to say and things to do" procedure:

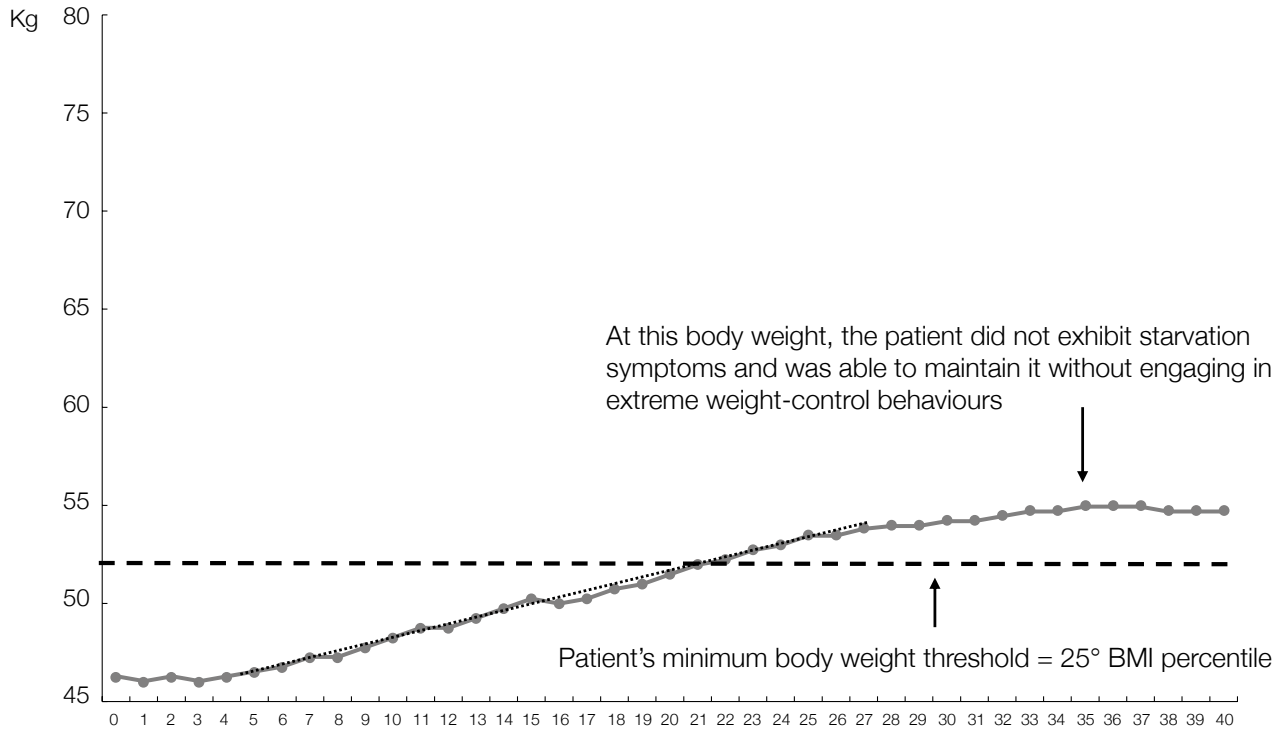

Figure 4. An example of a weight graph of a low-weight adolescent patient who concluded the CBT-E

- Things to say (or "urge surfing") include phrases like, "I can tolerate this urge without bingeing," or "The urge is like a wave—it peaks and then subsides".
- Things to do involve engaging in distracting activities, such as chatting with a friend, going for a walk, or playing music.

For patients who binge eat, regular eating quickly reduces binge frequency, often improving mood and providing strong reinforcement. While the exact mechanism is unclear, regular eating may help by:

1. Providing structure and control: Useful for those with chaotic eating habits, such as grazing instead of defined meals.
2. Addressing dietary restraint: In those with strict or delayed eating, regular eating encourages more consistent intake and reduce the biological pressure to binge eating.

In low-weight patients, regular eating helps reduce feelings of fullness, which can cause discomfort and hinder weight regain. However, if a patient is highly ambivalent about changing their eating pattern, this procedure is deferred, focusing instead on helping them decide to make changes during Step Two of treatment.

Providing personalized education

Personalized education in CBT-E has four main aims:

1. Correcting misunderstandings: Address misconceptions that may perpetuate eating disorders.
2. Providing reliable information: Reinforce the formulation by educating patients about eating disorders and the processes that sustain them.
3. Reducing stigma: Normalize the experience of having an eating disorder.
4. Fostering separation from the disorder: Help patients not to identify themselves with their eating disorders.

To support this process, patients receive the manual *A Young Person's Guide to Cognitive Behaviour Therapy for Eating Disorders* (Dalle Grave & Calugi, 2024b). They are encouraged to read the sections relevant to their condition and the session-introduced procedures, ensuring proper understanding and application. Patients are asked to highlight parts they consider relevant to their struggles, cross out parts they consider irrelevant, and mark with a

question any sections they don't understand or wish to discuss. Bringing the manual to each session allows the therapist to review these notes, enabling guided reading that is efficient, comprehensive, and personalized. This collaborative approach also helps refine the patient's personal formulation and tailor their treatment.

Deciding to change

This procedure is primarily used in Step One with low-weight adolescent patients but may also apply to patients with binge-eating episodes who, despite not being low weight, have egosyntonic features of eating disorder psychopathology (e.g., excessive exercising, dietary restraint, laxative misuse) they do not perceive as problems.

Starting from session 3, the therapist should prioritize the discussion about addressing change and low weight, placing it at the top of the session agenda for a series of sessions (often four or more). Some patients, however, decide to address change during session 3 itself.

This delicate process requires balancing empathy for the patients' struggles and ambivalence with confidence in their capacity to change. The goal is to inspire patients to recognize the benefits of change and view treatment as an opportunity for a fresh start.

The following steps are applied carefully and methodically to facilitate patient's decision-making in addressing low weight:

1. Evaluate the perceived positive function of low weight: Discuss the benefits the patient associates with maintaining a low weight (e.g., sense of control, self-evaluation, or other egosyntonic reasons).
2. Evaluate the impairment caused by low weight: Explore how low weight negatively affects the patient's physical health, psychological state, and interpersonal relationships.
3. Evaluate how low weight maintains the eating disorder: Examine how low weight perpetuates restrictive eating behaviours, preoccupation with shape and weight, and other features of the eating disorder.
4. Focus on the present: Create a table of current pros and cons to address weight gain and change.
5. Focus on the future: Develop a table of future pros and cons based on the patient's immediate future (six months to a year) instead of the longer-term perspective used in the adult version of CBT-E.
6. Draw conclusions: Summarize the insights gained from the evaluation tables in a third table, helping the patient synthesize their reflections and conclusions.

If ambivalence persists after session 7, the therapist may propose addressing Step Two as an experiment, reassuring the patient they can return to their old lifestyle after treatment if they dislike the effects. However, if patients ultimately decide not to pursue weight regain, the therapist may need to consider ending CBT-E and referring them to an alternative form of treatment.

Involving parents

Parents are involved through one parent-only session and 6–10 joint patient-parent sessions, typically conducted after the individual therapy sessions (see Table 3). The primary goal of these sessions is to engage parents as "helpers" rather than "controllers", creating an optimum family en-

Table 3. Sessions Involving Parents in Adolescent CBT-E

Parent-Only Session

- When: During the first week of treatment; additional sessions may be arranged as needed, especially in cases of family crises or significant difficulties during mealtimes.
- Duration: 50 minutes.
- Goals:
  - Assess the family environment.
  - Educate parents about their adolescent's eating disorder and its maintenance factors, based on the transdiagnostic cognitive-behavioral theory.
  - Instill hope and address self-blame.
  - Emphasize the importance of creating an optimal family environment.
  - Identify and address potential parental barriers to change.

Joint Patient and Parent Sessions

- When: Held at the conclusion of individual sessions with the adolescent (4–6 sessions for non-low weight patients; 6–10 sessions for low-weight patients).
- Duration: 15 minutes
- Goals:
  - Keep parents informed and engaged in the treatment process.
  - Update parents on the patient's progress.
  - Discuss how parents can assist their child in implementing key treatment procedures.

Note: The patient must always agree with the therapist on the scope and nature of their parent's involvement

vironment and assisting their child in implementing treatment procedures, with the child's agreement.

To support this process, parents are provided with the manual *Cognitive Behaviour Therapy for Eating Disorders in Young People: A Parents' Guide* (Dalle Grave & el Khazen, 2022). They are encouraged to read the sections relevant to their child's condition and the therapeutic procedures introduced during sessions, ensuring they can understand and appropriately apply them.

Review Sessions

The EPCL, completed weekly after the review of monitoring records, serves as a major tool for assessing progress and identifying emerging barriers to change in the CBT-E for adolescents. However, for non-low-weight patients, a formal review session is conducted at the end of Step One if major obstacles to change are present. Indeed, for low-weight patients, this review is periodic during Step Two to address emerging barriers to weight regain.

When planning Step Two, the relative contributions of the following seven maintenance processes must be assessed, as they vary between individuals:

1. Overvaluation of shape, weight, and their control
2. Overvaluation of control over eating
3. Being low weight
4. Dietary restriction
5. Dietary restraint
6. Other extreme shape and weight control behaviours
7. Changes in eating triggered by moods or events.

The therapist must determine the priority and order for addressing these processes. For low-weight patients, regaining weight is the top priority. Once partial weight recovery is achieved or if patients exhibit intense concerns about shape and weight, overvaluation of shape, weight, and control should be addressed. For non-low-weight patients, addressing overvaluation of shape, weight, and their control is the priority, as it is often the strongest maintenance mechanism and requires significant time to manage. Dietary restraint and mood-related issues can be tackled subsequently.

During the formal review, the therapist may determine if the broad form of CBT-E is necessary. This approach is reserved for cases where external maintenance mechanisms significantly sustain eating disorder psychopathology and impede treatment progress.

Step Two - Addressing the Change

This step is carefully tailored to each adolescent's unique psychopathology and the specific processes sustaining their eating disorder. The key objectives are to facilitate weight restoration (if necessary) and to target and dismantle the core mechanisms driving the eating disorder features. The methods for achieving these objectives are highly variable and depend on the individual needs and challenges of each patient. Table 4 outlines the general structure and organisation of Step Two.

Underweight and Undereating module

This module is for young individuals with low weight and has two primary goals:

1. Restoring a healthy weight by consuming an extra 500 kcal daily, beyond the amount needed to maintain stable weight to achieve a weight gain of about 0.5 kg per week.
2. Maintaining a healthy weight within 3 kg above the minimum healthy range.

The healthy weight range target in CBT-E for adolescents is personalized and corresponds to a BMI above the 25th percentile, provided it meets the following criteria:

- It does not contribute to the maintenance of the eating disorder.
- It can be maintained without adopting extreme weight-control behaviors.
- It is not associated with the adverse effects of being low weight.
- It aligns with physical health and developmental needs.
- It allows for a normal social life.

For example, some patients may need to reach the 30th percentile, others the 40th, or even the 60th percentile or higher, as body weight is strongly influenced by genetic factors and natural weight ranges vary significantly between individuals.

The adult version of CBT-E provides lists of 500-kcal food options to create a daily surplus. In contrast, adolescent CBT-E incorporates nutritional education aligned with national guidelines. Patients are provided with sample menus (A, B, C, D) consisting of three meals and two snacks, without calorie information, designed to create a 500-kcal surplus. This strategy is adopted because young patients often follow extreme dietary rules that exclude entire food groups, which can hinder their recovery from an

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Table 4. General structure and organisation of Step Two CBT-E for adolescents

Goals

- Promote weight restoration (if necessary).
- Disrupt key mechanisms maintaining eating-disorder features.

Adaptability

- Non-low weight patients: Delivered weekly over ten weeks.
- Low weight patients: Sessions held twice weekly until achieving a stable rate of weight regain. Transition to weekly sessions thereafter. Duration ranges from 20 to 30 weeks, adjusted for individual difficulties in weight regain.

Modules in the Focused Form

To address the primary mechanisms maintaining the patient's eating disorder, the following modules are employed based on individual needs:

- Underweight and Undereating
- Body Image
- Dietary Restraint
- Other Extreme Shape and Weight Control Behaviours
- Events, Moods, and Eating
- Setbacks and Mindsets

Modules in the Broad Form

For patients whose treatment progress is hindered by additional maintenance factors, the broad form of CBT-E incorporates the following supplementary modules, which can be added to the focused form as needed:

- Clinical Perfectionism
- Core Low Self-esteem
- Marked interpersonal Difficulties
- Mood Intolerance

This approach ensures tailored interventions to effectively address the unique maintenance mechanisms of each adolescent.

eating disorder. These restrictive behaviours need to be addressed through guidance and support. The aim is to help them adopt a healthy and flexible meal plan that meets their nutritional needs, supporting both their recovery and ongoing physical and psychosocial growth. By promoting a balanced approach to eating, the strategy ensures that patients receive adequate nutrition while also fostering a positive relationship with food, which is essential for their overall well-being and development.

Portion sizes are based on standard amounts consumed by individuals without eating disorders, with average daily calorie levels: Menu A about 1,500 kcal/day, Menu B. about 2,000 kcal/day, Menu C about 2,500 kcal/day, and Menu D about 3,000 kcal/day. Patients are educated on the following CBT-E weight regain guidelines: Start with Menu A and increase to the next menu if weight gain is less than 0.5 kg/week. Menu calorie contents are averages over a week, not fixed daily values. Patients are encouraged to include all food groups and monitor portion sizes, but therapists should guard against patients turning these guidelines into rigid rules.

A distinctive feature of adolescent CBT-E is the involvement of parents. After the patient and therapist devise a plan to achieve a positive energy balance, a joint session is held with the parents. This session informs them about the patient's commitment to weight regain, the weekly goal of 0.5 kg, and the need for a daily 500-kcal energy surplus. The therapist also reviews challenges the patient faces with regular eating and discusses, with the patient's agreement, how parents can support their child's weight regain efforts during meals.

Body Image module

The Body Image module targets young individuals who base their self-evaluation largely on their shape, weight, and ability to control them. This overvaluation drives key psychological and behavioural aspects of eating disorders, such as shape avoidance and feeling fat, and must be addressed in most patients.

CBT-E strategies for addressing body image with adolescents are the same used in the adult versions and include (Dalle Grave & Calugi, 2020):

- Collaboratively creating a self-evaluation pie chart.
- Developing an extended personal formulation.
- Increasing the importance of other life domains while reducing the focus on shape, weight, and control.
- Addressing key expressions of overvaluation, such as body checking, body avoidance, and feeling fat.

The final goal is for the patient to develop a more functional and articulate self-evaluation framework.

The module places particular emphasis on addressing dysfunctional social media use, such as comparing oneself to idealized or edited images, posting personal photos, and engaging with others' photos. Patients monitor their social

media activity over two days using a CBT-E monitoring record to assess body checking behaviours. They note the time spent on social media, platforms used, their reasons for use, and how they feel afterward. If deemed dysfunctional, patients work with the therapist to adjust their social media habits. This includes challenging unrealistic ideals of appearance and pressure to conform to these ideals, as they manifest within the social media environment, improving media literacy and curating their feeds by:

- Following accounts or communities that promote positive psychological well-being.
- Unfollowing or unfriending accounts and leaving communities that negatively affect their mental health.

These steps aim to foster healthier social media engagement and improve body image.

In adolescent CBT-E, therapists avoid addressing a patient's report of "feeling fat" by saying they are not fat, as this could inadvertently reinforce weight stigma. Instead, without commenting on weight, therapists encourage patients to identify "peak" times when they feel fat, and the triggers associated with these feelings. Triggers may include heightened body awareness, adverse physical states, and adverse emotional states. The focus is on addressing these triggers directly to help patients manage and reduce their feelings of fatness.

In adolescent patients with eating disorders and internalized weight stigma, particularly those with higher or past higher body weight who have experienced weight-related stigma, body image work integrates strategies and procedures addressing the mechanisms sustaining this stigma. Internalized weight stigma occurs when individuals adopt societal weight stereotypes, leading to negative self-beliefs and reactions related to their weight. When internalized weight stigma coexists with the overvaluation of shape and weight, both constructs should be addressed simultaneously. Procedures to tackle internalized weight stigma, as described in the CBT manual for binge-eating disorder (Dalle Grave et al., 2024), include:

1. Addressing environmental stigmatization and its impact.
2. Challenging cognitive biases, such as:
   - Discounting positive qualities.
   - Selective attention to negative body-related beliefs.
   - Overgeneralization (e.g., viewing isolated failures in eating or weight goals as global personal failures).
   - All-or-nothing thinking about body weight and shape.
3. Addressing problematic rules, such as unrealistic eating and weight goals.
4. Exploring the origins of internalized weight stigma.
5. Developing balanced self-worth, reducing reliance on weight and shape as the sole determinants of self-esteem.

These strategies aim to dismantle harmful beliefs, promote self-compassion, and foster a more balanced sense of self-worth.

Dietary Restraint module

The Dietary Rules module is designed for young individuals who follow extreme and rigid dietary rules regarding what, where, how, and how much to eat. CBT-E addresses these rules using strategies similar to those described for adults (Fairburn, 2008).

The process begins with helping patients recognize that strict dieting is problematic. Then, dietary rules are identified and systematically broken, one at a time. By examining and managing the outcomes of breaking these rules, patients see that the feared consequences—such as weight gain or bingeing—do not occur. This helps them understand that dietary rules are a problem rather than a helpful method for controlling eating and body weight.

Other Extreme Shape and Weight Control Behaviours module

The Other Extreme Shape and Weight Control Behaviours module addresses behaviours such as excessive exercise and the misuse of laxatives or other medications to control shape and weight. This module can be implemented alongside the Low Weight and Undereating module if the patient also has a low weight.

Excessive exercise is prevalent among adolescents with eating disorders, particularly those who are low weight (Dalle Grave et al., 2008) and in males (Murray et al., 2014). In contrast, the misuse of laxatives or other medications to control body weight is less common in this age group.

As with other egosyntonic features of eating disorders (e.g., low weight, dietary restraint, and restriction), it is crucial that the patient actively decides to tackle excessive exercise and/or these behaviours before starting this module.

The CBT-E approach to addressing extreme shape and weight control behaviours in adolescents involves the following steps:

1. Identification of dysfunctional behaviour: The behaviour is identified using real-time monitoring records.
2. Analysis of perceived positive function: The perceived benefits of the behaviour are explored (e.g., controlling shape and weight or modulating mood).

3. Psychoeducation on impairment: The patient is educated about the physical harm and psychosocial impairments caused by the dysfunctional behaviour.
4. Evaluation of pros and cons: The short- and long-term advantages and disadvantages of addressing the dysfunctional behaviour are assessed collaboratively.
5. Implementation of personalized strategies: Specific strategies and procedures are developed to address the dysfunctional behaviour (see Dalle Grave & Calugi, 2020).

The goal is to replace maladaptive behaviours with healthier alternatives while simultaneously addressing other aspects of the eating disorder psychopathology.

Events, Moods, and Eating module

The Events, Mood, and Eating module is recommended for young individuals whose eating behaviour is influenced by specific events and associated mood changes. These influences may manifest as uncontrolled eating (binge eating), reduced intake, or fasting. The strategies used to address the impact of events and mood on eating align with those in the adult CBT-E model (Fairburn, 2008). These include:

- Proactive problem-solving to manage predictable events and emotions that affect eating behaviours.
- Thing to say (urge surfing) and to do (alternative activities) to address sudden, unexpected events or emotions.

For adolescents experiencing intense emotions and relying on dysfunctional mood regulation behaviours (e.g., self-harm or substance misuse or binge-eating episodes), CBT-E in its broad form incorporates the Mood Intolerance module to address these challenges.

Setbacks and Mindsets module

The *Setbacks and Mindsets* module is introduced during the later stages of Step Two in CBT-E, once the primary maintenance mechanisms of the eating disorder have been addressed. At this point, patients often begin to experience moments when their eating-disorder mindset is less dominant.

The strategies for managing the eating-disorder mindset align with those recommended in the adult version of CBT-E (Fairburn, 2008) and include:

- Identifying triggers likely to reactivate the mindset.
- Recognising early signs that the mindset is reasserting itself.
- Displacing the eating-disorder mindset when it begins to re-emerge.

Additional approaches to help patients distance themselves from the eating-disorder mindset include:

- Exploring the origins of their overvaluation using a life chart.
- Balancing acceptance with motivation for change.
- Addressing societal pressures to achieve thinness.
- Choosing comfortable clothing.
- Managing external comments about appearance.
- Engaging in healthy and sustainable physical activities.

Step Three - Ending Well

Step Three is the concluding phase of treatment, designed to ensure a successful conclusion. It comprises three appointments spaced two weeks apart, with a progressive shift from addressing present concerns to focusing on the future. The primary aims are to consolidate the progress achieved during treatment and to reduce the likelihood of relapse. Additionally, any concerns raised by the adolescent and/or their parent(s) about concluding therapy are addressed, and specific treatment procedures, such as self-monitoring and in-session weighing, are gradually discontinued. In the final stages of this step, the therapist collaborates with the patient to create a maintenance plan.

Post-Treatment Review Sessions

Follow-up sessions are scheduled at 4, 12, and 24 weeks post-treatment. Their purpose is to reassess the adolescent's condition and evaluate the need for additional intervention. These sessions also provide an opportunity to review progress, refine the long-term maintenance plan, and address any remaining concerns. If applicable, such as when the adolescent has not resumed regular menstrual cycles, the sessions discuss the benefits and potential drawbacks of further weight gain.

Broad CBT-E modules

The broad form of CBT-E incorporates four additional treatment modules, each targeting a commonly encountered 'external' mechanism contributing to the maintenance of the eating disorder:

1. Clinical Perfectionism
2. Core Low Self-Esteem
3. Interpersonal Difficulties
4. Mood Intolerance

The decision to use the broad form of CBT-E is made during the review session (either after the first four weeks for patients who are not underweight, or in one of the review sessions during Step Two for those who are underweight). The decision should follow two key guidelines. First, the default treatment should be the focused version of CBT-E, which has demonstrated efficacy in trials involving both underweight and non-underweight adolescents and is generally easier to implement. Second, the broad form of CBT-E should only be considered if, during the review sessions following Step One, it is determined that one or more of the external psychopathological features (clinical perfectionism, core low self-esteem, interpersonal difficulties, or mood intolerance) are: (i) pronounced, (ii) maintaining the eating disorder, and (iii) likely to interfere with the response to treatment. All three of these conditions must be met before moving to the broad form of CBT-E.

The modules included in the adolescent version of broad CBT-E mirror the strategies and procedures found in the adult version, which are thoroughly described in the main treatment manuals. (Dalle Grave & Calugi, 2020; Fairburn, 2008).

Effectiveness of CBT-E for adolescents

Several studies have evaluated the effectiveness of CBT-E for adolescents aged 12 to 19 years (Dalle Grave & Calugi, 2024a). The available evidence consistently demonstrates that CBT-E is effective for adolescents with a range of eating disorders. It leads to significant improvements in body weight, reductions in eating disorder symptoms, and overall enhancement of psychological well-being. These positive outcomes are maintained over time, indicating that CBT-E is effective for both underweight and non-underweight adolescents. This underscores the versatility of CBT-E and its capacity to address the specific needs of younger patients with eating disorders.

CBT-E appears to be more effective and efficient in adolescents compared to adults, achieving comparable results to Family-Based Therapy (FBT) at 6- and 12-month follow-up (Le Grange et al., 2020). Additionally, studies suggest that CBT-E is beneficial for transition-age youth (ages 14 to 25) with anorexia nervosa, further expanding its applicability across different stages of adolescent development (Dalle Grave et al., 2023). These findings reinforce the potential of CBT-E as a highly effective treatment for adolescents and young adults facing eating disorders.

Future directions and conclusions

Several challenges must be addressed to advance the field and enhance the application of CBT-E for adolescents with eating disorders.

Firstly, the utility of CBT-E for adolescents requires further exploration. A significant step in this direction is the ongoing Norwegian CogFam trial, a non-inferiority randomized controlled trial (RCT) that began recruitment in 2024 (Øyvind, 2023), This trial focuses on patients aged 12–18 with eating disorders, referred to eight outpatient clinics in four Norwegian regions (Oslo, Bergen, Trondheim, and Tromsø). It aims to compare the acceptability, effectiveness, and sustainability of CBT-E and Family-Based Therapy (FBT). Furthermore, it will investigate treatment moderators to help tailor these therapies to individual patients. Given the different mechanisms and strategies underlying these treatments, identifying moderators could refine patient-treatment matching.

Secondly, understanding the reasons for non-response in CBT-E is essential to improve its efficacy. Adjustments and enhancements based on these findings could lead to more effective interventions.

Thirdly, evaluating the outcomes of the broad versus focused versions of CBT-E is also crucial. Additionally, exploring whether modules targeting comorbid conditions, such as obesity or post-traumatic stress disorder (PTSD), result in better outcomes warrants further investigation.

Finally, determining how CBT-E can be adapted for individuals with conditions commonly linked to eating disorders, such as autism spectrum disorder (ASD) and attention deficit hyperactivity disorder (ADHD), is another important research area. Tailoring treatment to the specific psychological traits of these populations could improve accessibility and effectiveness.

By addressing these challenges through research and clinical innovation, CBT-E can be refined to become more versatile and effective, not only for a broader range of adolescents but also for adult patients with eating disorders.

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