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# Weighing patients within cognitive-behavioral therapy for eating disorders: How, when and why

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Weighing eating-disordered patients in CBT

Weighing patients within cognitive-behavioral therapy for eating disorders:

How, when and why

Abstract

While weight, beliefs about weight and weight changes are key issues in the

pathology and treatment of eating disorders, there is substantial variation in whether and

how psychological therapists weigh their patients. This review considers the reasons for that

variability, highlighting the differences that exist in clinical protocols between therapies, as

well as levels of reluctance on the part of some therapists and patients. It is noted that there

have been substantial changes over time in the recommendations made within therapies,

including cognitive-behavioral therapy (CBT). The review then makes the case for all CBT

therapists needing to weigh their patients in session and for the patient to be aware of their

weight, in order to give the best chance of cognitive, emotional and behavioral progress.

Specific guidance is given as to how to weigh, stressing the importance of preparation of the

patient and presentation, timing and execution of the task. Consideration is given to reasons

that clinicians commonly report for not weighing patients routinely, and counter-arguments

and solutions are presented. Finally, there is consideration of procedures to follow with some

special groups of patients.

Key words: cognitive-behavior therapy; eating disorders; weighing

# Weighing patients within cognitive-behavioral therapy for eating disorders: How, when and why

Cognitive-behavioral therapy is more likely to be effective when the clinician adheres to evidence-based principles and protocols. However, relatively few therapists espouse or use evidence-based therapies when working with eating disorders (e.g., Tobin et al., 2007; von Ranson et al., 2013). Even when they label what they do as an evidence-based therapy, many clinicians miss key components (e.g., Kosmerley et al., in press; Simmons et al., 2008; Waller et al., 2012).

A particularly prominent issue in the treatment of eating disorders is the weighing of patients. Waller et al. (2012) found that under 40% of CBT clinicians reported weighing their eating-disordered patients routinely. Indeed, the second most common pattern (17.1%) was for therapists not to weigh their patients at all during CBT for the eating disorders. Furthermore, even when patients are weighed by clinicians, Forbush et al. (in press) have shown that there is substantial variation in the information that clinicians are willing to share with patients afterwards. Given that CBT has the best evidence in the psychological treatment of the eating disorders (e.g., Fairburn & Harrison, 2003), such routine failure to employ a key element of the therapy or to share information with the patient could be a matter of concern.

Of course, any such criticism is to assume that weighing is a central part of CBT, and many clinicians will (and do) argue that it is an optional extra or that it can and should be done by other people. This paper will consider the practical and therapeutic reasons that clinicians should weigh patients within CBT for the eating disorders. It will present a rationale for how and when this should be done. Finally, it will examine the logic (or otherwise) of reasons that clinicians commonly give for not doing so.

A key issue is that while some therapies for eating disorders are evidence-based, there have been few dismantling studies that would allow the individual elements of those therapies to be described as evidence-based. Indeed, weighing in therapy has not been

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consistently employed even in CBT for eating disorders, as will be detailed below. Therefore, given the broader evidence for exposure-based methods, it is assumed here that the exposure elements of weighing are likely to be those that are most effective, though this assumption will be returned to in considering future directions in the field.

#### What do clinical protocols recommend about weighing eating-disordered patients?

Before considering why we should routinely weigh eating-disordered patients, it is important to consider what is recommended in the literature. Psychotherapy treatment protocols differ substantially in their requirements about weighing eating-disordered patients. Table 1 provides a summary of what is recommended in a number of such protocols, selected here because they are widely used or have an evidence base in support of their use.

Insert Table 1 about here

While weight is treated as important in many (though not all) protocols, how it is obtained and whether it is discussed with the patient differs (e.g., Forbush et al., in press) with therapy modality and stage of therapy. An issue is that many of the protocols do not directly address how, when and why patients should be weighed. For example, none of the available dialectical behavior therapy protocols specified this element. Contact with those authors (see cited personal communications) clarified that patients were weighed in-session in some cases, self-weighed in others, and were weighed by other team members in the remainder. Indeed, the only group of therapies where there was relative consistency in the matter of weighing patients was in family-based therapy, though not all of those approaches clarified the issue of weighing in the manual itself. Some other recently-developed therapies also have recommendations about weighing patients that are similar to those underlying family-based approaches (e.g., specialist supportive clinical management; Maudsley model

of anorexia nervosa treatment for adults), while others are less involving of the therapist (e.g., focal psychodynamic therapy) or do not require weighing at all (e.g., interpersonal psychotherapy).

Within CBT specifically, recommended practice has changed substantially over time. In the case of bulimic disorders, Fairburn's early recommendations (1985) were that the patient should weigh themselves, later transforming into a specific recommendation that the patient should <u>not</u> weigh themselves (Fairburn et al., 1993). Similarly, the guidance for anorexic disorders has developed from an almost total absence of overt recommendations (Garner & Bemis, 1984) to a requirement that whoever weighed the patient should be 'reliable' (Garner et al., 1997; Pike et al., 2010).

Only in later incarnations of CBT for different eating disorders (Fairburn, 2008; Gowers & Green, 2009; Touyz et al., 2013; Waller et al., 2007) has there evolved a consistent recommendation that the therapist should always weigh the patient within the session, whatever the nature of their disorder, and that this weight should be discussed with the patient overtly. Even then, this pattern is not replicated in more meta-cognitive approaches, where weighing is not specified as a task of therapy at all (e.g., Cooper et al., 2009).

To summarise, not all evidence-based therapies address the issue of weighing patients explicitly, and the recommendations vary within therapies and across time. This variation is particularly the case for CBT, where any clinician whose main source of information was much over a decade old could reasonably argue that they had been directed not to weigh patients themselves. However, there is convergence in recent years, with most of the widely established therapies recommending that the patient should be weighed in the session by the therapist, and that the patient should be made aware of their weight. Unfortunately, even now, that guidance is not stated in all manuals.

## Reasons for weighing eating-disordered patients within CBT

There are four strong reasons for weighing patients routinely within CBT for eating

disorders. The first two apply across therapies, while the other two are more focused on cognitive behavioral processes.

#### **Patient safety**

The first reason is universal to all psychotherapies – the need to ensure that the eating-disordered patient is physically safe. Both low and high weight have potential for negative health consequences (e.g., cardiac function, muscular weakness, electrolyte imbalance, diabetes, etc.). Sudden or sustained loss of weight can be a particularly high risk. Of course, all of these patterns are easily missed if the patient is not weighed, making it possible to argue that failure to monitor weight effectively is dangerous practice on the part of clinicians. Some reasons that clinicians give for not weighing even high-risk patients will be considered below.

# Indication of changes in eating patterns

Many clinicians working with eating-disordered patients also fail to monitor patients' eating patterns, despite recommendations in protocols (e.g., Fairburn, 2008; Fairburn et al., 1993; Waller et al., 2007). For example, Waller et al. (2012) reported that under 25% of CBT clinicians routinely had their patients complete food diaries. Thus, many clinicians are dependent on potentially unreliable *post hoc* self-reports from patients (if they ask about food at all). The clinician is dependent on knowing the patient's weight if they want to identify sudden changes in eating and related patterns (e.g., sudden increase in weight due to undisclosed binge-eating; sudden weight loss/fluctuations indicating resumed laxative abuse). In short, without regular weighing, it is possible that clinicians will miss sudden or long-term changes in weight that indicate important clinical targets or outcomes.

#### **Anxiety reduction**

A more CBT-oriented rationale for weighing patients in session is to address the anxiety that some (but not all) eating-disordered patients experience at the prospect of being weighed or as a result of self-weighing. This approach involves treating weight-avoidance as a problem behaviour, using two therapeutic tools – exposure and behavioral experimentation.

Exposure is valuable where the patient is fearful of being weighed and/or knowing their weight. Patients will often express their anxiety in forms such as "I will have to starve myself" or "Knowing my weight will just make me binge". Clearly, these are efforts to employ a safety behaviour, which would reduce that anxiety in the short term. The patient's safety behaviour has often been exacerbated by encounters with other clinicians, who have responded to it by backing off that demand – accommodating the patient's safety behavior. Such accommodation exacerbates overvaluation of eating, weight and shape, resulting in problems in addressing the 'broken cognition' underpinning eating disorders (below). To reduce this anxiety requires the patient to be weighed and know their weight.

Behavioral experimentation is relevant when the patient engages in excessive body checking, where they weigh themselves many time a day. This body checking (Mountford et al., 2006) serves the short-term function of anxiety reduction, but longer term results in elevated anxiety levels. Therefore, treatment requires experimentation with excessive weighing and no weighing, in order to learn that body checking is a pathological safety behavior (Waller et al., 2007).

# Addressing the 'broken cognition' in the eating disorders

The final reason for weighing patients is to address the 'broken cognition' that permeates the eating disorders. It is undoubtedly true that individuals with eating disorders overvalue their eating, weight and shape as part of their self-worth more than non-sufferers (Fairburn et al., 2003). However, that condition is so normative (particularly among females in western cultures) that it is hard to see it as a defining characteristic of the eating disorders. More central to the eating disorders is a particular cognitive disconnection – the link between eating and weight gain. It is normal for individuals to see a connection between what they eat and what happens to their weight. While the correspondence is not seen as perfect, it is there in general terms – eat more over a holiday, and weight will rise: diet after the holiday and weight will fall. This loose 'eating-food connection' is absent or seriously impaired in most individuals with eating disorders. Any food intake is seen as liable to have catastrophic effects on weight, which can only be avoided or reduced if intake is minimized.

This disconnection is not between the amount that the individual *believes* that they have eaten and their weight. Rather, it is a disconnection between the actual amount eaten and beliefs about the likely impact on weight. Many non-eating-disordered individuals underestimate how much they have eaten, so are surprised at what happens to their weight. However, eating-disordered individuals can have a very precise idea of what they have eaten, and yet still see the impact on their weight as likely to be much greater than one would predict objectively. When eating-disordered patients state that they feel that they have eaten a lot (e.g., a subjective binge), they are usually clear about what they have eaten, but disproportionately fearful of the impact of that amount of food on their weight.

Thus, the weighing of patients has a role in CBT that is cognitive in nature – modifying the widespread 'broken cognition' that eating is not proportionate to weight change. That cognitive change is addressed through different mechanisms that challenge and shape beliefs. These include: using data to challenge schemas and selective abstraction (e.g., predicted vs actual weight), surveys to test whether others believe that one gains weight when one eats, and behavioral experiments to determine the accuracy of predictions about weight gain based on making specific changes to eating. Obviously, none of this is possible without routinely measuring intake and weight, and if not sharing weight information with the patient.

#### Summary

There are four reasons for CBT therapists to weigh their eating-disordered patients – to keep them safe, to understand their eating patterns, to reduce the patient's anxiety and avoidance, and to modify the central cognitive problem at the heart of the eating disorders. In order to address the first two, weighing can be undertaken in many different ways, provided that the clinician is able to monitor the results (e.g., the person doing the weighing communicates that weight to the person delivering the therapy) and as long as any concerns about weight falsification are addressed (e.g., by checking for electrolyte imbalances that might indicate water loading). However, the latter two reasons reflect the cognitive and behavioral combination that is central to CBT for eating disorders, and need to be carried out

in an appropriate way. Indeed, it can be concluded that weighing the patient appropriately is necessary for the therapy to be seen as CBT.

# How to weigh eating disordered patients effectively within CBT for eating disorders

The following sequence is proposed as a means of routinely weighing patients in order to realise the relevant targets of CBT. It is based on the methods recommended in recent evidence-based approaches to CBT (e.g., Fairburn, 2008; Waller et al., 2007), though it is compatible with approaches suggested elsewhere (e.g., Lock et al., 2001).

It is assumed that CBT clinicians will have access to accurate weighing scales and height measures (unfortunately, this is commonly not the case), which are routinely calibrated, and that clinicians know how to take the patient's height in a replicable way (e.g., Waller et al., 2007). Finally, it is essential that the patient should be weighed by the therapist, at the appropriate point in the session, and that the outcome should be communicated clearly to the patient, in the form of an actual weight (not simply "up", "down" or "OK"). This is a non-negotiable for the therapist, as it is essential to address the 'broken cognition' (outlined above).

#### Setting the scene

1. At assessment and at the first therapy session, weighing should be presented as simply part of therapy. It should be presented as a rational but non-negotiable element of treatment, rather than as an unjustified rule (e.g., Geller & Srikameswaran, 2006). Most patients will not question this element, but a small proportion will (e.g., "My last therapist did not weigh me"). In such cases, the reasons for weighing should be laid out and the patient's thinking behind not being weighed should be addressed (e.g., "It did not work last time when you were not weighed, so it is time to try something that has a better chance of working"). However, the therapist needs to be firm about needing to weigh the patient immediately, if at all possible (e.g., "Your anxiety will be just the same or higher next time"). If the patient is not willing to be weighed immediately, then patient and therapist can devise a plan for the patient to ready

themselves for weighing over the next week. However, it needs to be made clear that this is a planned, fixed extension, not to be repeated, so that the patient and therapist do not end up repeating it week after week. If there is any push (from therapist or patient) to extend that period, then it is important to acknowledge this openly, exploring the factors that are preventing the plan from being implemented. It may be helpful to discuss avoidance as a 'therapy interfering behavior'. The most important error that the clinician can make at this stage is to try to reduce the patient's anxiety (e.g., "It's OK – maybe we can put that on hold"), as that clinician safety behavior (not upsetting the patient) will accommodate and thus maintain the patient's safety behavior of avoiding being weighed.<sup>1</sup>

- 2. Using psychoeducational material, therapist and patient should explore the facts regarding weight change (e.g., weight fluctuations are common, with most people gaining or losing up to 1kg over the course of the day). If the patient has anorexia, it is also important to discuss what the *planned* weekly weight gain is and to include this in any future predictions or evaluations.
- 3. Weighing should be presented as a relatively unexciting event. The aim is to get the patient used to identifying weight change patterns being a slow, even boring process one (i.e., the antithesis of the anxiety that is usually experienced in relation to weighing). The explanation should be that weight monitoring is an inevitably slow process (e.g., "We will need to weigh you every week, but because everyone's weight fluctuates, we will need to weigh you about four times before we can even establish a baseline average weight. Then we will need to weigh you another four times before we can say whether your average weight has gone up or down, or just stayed where it was"). Four sessions gives a realistic chance of establishing a reasonable baseline, especially if the individual is experiencing periods, but the number can be reduced to

<sup>1</sup> Our experience in using this firm approach to weighing is that a minority of patients have objected to the idea of being weighed, many have stated that they will feel worse as a result of being weighed, all have eventually agreed to be weighed so that therapy could begin, all have returned for subsequent sessions, and none have resisted a second time (treating being weighed as standard thereafter).

- three if the duration of therapy is brief.
- 4. The basic requirements should be addressed, including avoiding weighing themselves between sessions if at all possible, and allowing for natural variations (e.g., not trying to keep conditions the same every time, such as the time of day). Such variations should be presented as being part of the reason that it takes time to be sure about one's weight.
- 5. Potential reasons for unusual levels of weight change (e.g., water balance changes due to use of laxatives) should be used to explain what might happen to weight over time. Obviously, addressing any biological threats (e.g., electrolyte imbalance) should take priority over psychological therapy, though usually both can be addressed simultaneously.
- 6. Weighing should be presented as a collaborative task, where both the patient and the therapist will be active participants. As is common in CBT, the use of 'we' (rather than 'I' or 'you') is a good habit to adopt here.

#### The process of weighing itself <sup>2</sup>

7. Weighing should be conducted at the appropriate point in the therapy session, when the patient's cognitions are 'hot' enough (i.e., highly active, with associated emotional activation) to allow them to learn most effectively. In practice, this means that one should review the patient's eating (through use of diaries) in order to activate their dysfunctional cognitions about what will have happened to their weight. In most cases, this process will result in the patient being anxious about the amount that they believe that they will have gained. At this point, they should be asked their prediction about what will have happened to their weight (in kg/lbs, not simply up/down/same), and their certainty rating regarding that prediction. The dysfunctional cognitions and anxiety will usually result in a prediction that is far beyond likely. The patient is asked to explain

<sup>&</sup>lt;sup>2</sup> Fuller clinical descriptions of the weighing process appear in Fairburn (2008; p.37 & pp.62-65) and Waller et al. (2007, pp.33-34 & pp.40-41). In addition, Lock et al. (2001, p.59) and Le Grange & Lock (2007, pp.59-60) provide a valuable guide to the stance that clinicians need to adopt to overcome any reluctance on the part of patients.

the reasoning for their prediction and what it will mean if they are correct and what it will mean if they are incorrect. Having noted this prediction on the weight chart, it is time to weigh the patient.

- 8. Prior to the patient getting on the scales, they should be reminded that this is only one out of the four weighings necessary to establish an average weight (e.g., "We won't learn that much from today's weight, as it is only the second of four that we need to understand your true weight"). If it is the fourth of four, then it is presented as the point where the baseline is established or a realistic comparison over time can be made.
- 9. The patient stands on the scales, and observes their own weight at the same time as the therapist sees it. The therapist should note the weight, for charting.
- 10. Whatever the weight and whatever the patient says in reaction to seeing it, then it is important for the therapist not to react in any excited way (e.g., not saying: "See you were wrong your weight has not done what you thought it would at all"). Rather, with Socratic reasoning in mind, one should not overtly reject the patient's beliefs (e.g., "OK, your weight has not done what you expected this week, but this was only one week out of four, so it is possible that you are right and that your weight will catch up over the next week or so to meet your expectations"). There are two reasons for this caution. First, the aim is to treat weight change as a long-term issue, and if therapists get excited in the short term, then the patient cannot be expected to hold that long-term perspective. Second, if we treat weight change as an area where beliefs can be disconfirmed on the basis of a single weighing, then we are encouraging the patient to see their beliefs as being open to confirmation on the basis of a single weighing.
- 11. The weight should be charted with the patient, and copies kept by both patient and therapist. The chart needs to show two lines the patient's actual weight (augmented with a median line every four weeks); and the cumulative weight prediction line (Waller et al., 2007). This process results in two lines one showing slow change or stability in weight as behaviors change (the data), and one showing a rapid rise (the schema).
- 12. The outcomes after four weeks as shown on the weight chart are used to challenge

beliefs. These lines allow the clinician to stress the difference between the patient's beliefs about weight gain and the actual impact of eating – data used to challenge schema about weight gain. The result is a shift in certainty about weight gain beliefs, followed by a more rational evaluation. The 'broken cognition' is repaired with consistent, repeated focus on the eating-weight link, especially as behavioral experiments are used to 'push' to test whether the individual was correct in their beliefs.

#### Preparing for next time

13. At the end of the session, planning food intake (e.g., exposure to feared foods, behavioral experiments) and related behaviors (e.g., reduction in purging behaviors) should be linked to the patient making a prediction of likely weight change as a result (including a certainty rating). It will be noted (see above) that this prediction is repeated at the beginning of the weighing process at the next session – that is to ensure that the cognitions are 'hot' just before the weighing, and to deal with the fact that the patient's predicted eating pattern at the end of the session might not be what was actually eaten over the intervening week<sup>3</sup>.

#### Longer-term

14. Towards the end of therapy, it will be important to plan and implement the patient selfweighing, in order to learn to maintain gains over follow-up and thereafter.

Thus, it can be seen that the process of weighing is a complex one. All the above takes only a few minutes in each session, with the exception of the cognitive challenges that can be made once the disparity between schema and data has been made explicit. That task should be a longer one, as it is central to the task of repairing the 'broken cognition'

#### **Troubleshooting**

As has been detailed, patients are sometimes reluctant to be weighed (though not as

<sup>&</sup>lt;sup>3</sup> Of course, the intervening period might be longer or shorter than a week, but the same process applies regardless of the time period under consideration.

often as some clinicians assume). Such reluctance is understandable, given that patients might be anxious, might have been told that therapy does not include being weighed, and might not be aware of the rationale for weighing. These are all issues that can be addressed, using a combination of psychoeducation and firmness. That attitude relates to the view that that an effective working alliance when working with eating disorders is based on "a judicious blend of firmness and empathy" (Wilson et al., 1997), where empathy in the absence of appropriate firmness is recognised as being unlikely to produce therapeutic benefits.

However, it is not only eating-disordered patients who are reluctant to ensure that weighing happens in CBT. On many occasions, the deciding factor is the clinician's own reluctance to weigh the patient, even when the patient has not expressed any concern about being weighed. Extensive enquiries in CBT supervision and teaching sessions have revealed a possibly surprising number of reasons that clinicians give for not weighing their patients. The following are the most common ones, along with arguments that address them. Some reasons are centred in the patient, while others are more centred in the therapist or the clinical context.

In clinical work, therapists commonly report patients as saying:

- a) "If you weigh me, I will be unable to cope/I will binge/I will restrict". This argument requires the CBT therapist to be firm about the need for weight and food diaries in order to make the therapy work. Similar arguments have been raised in the wider exposure literature, where clinicians' fears about short-term negative outcomes have been shown to be ill-founded (e.g., Deacon, 2012).
- b) "There is no need I know my weight". This argument can be dealt with by saying that the patient might or might not be correct, but as most people are poor at judging their weight then the clinician would need to be convinced that they really could do this. That can only be achieved by weighing the patient and seeing whether they are correct. By the time that it is established that the patient is normatively poor at guessing their weight, the exposure effect means that weighing is no longer a matter of contention.

- c) "There is no need I am in the healthy weight range". It might be true that the patient is in the healthy weight range, but this argument stops the 'broken cognition' from being challenged and anxiety around weighing being addressed. In our experience, this justification is more common in those who have previously had anorexia but now meet an EDNOS diagnosis and retain a rigid cognitive style. Although they might be at a healthy weight, there may be numerous idiosyncratic rules or restrictive behaviors evident.
- d) "I weigh myself before the session". This approach needs to be discouraged, explaining to the patient that if they use this safety behavior then they prevent themselves being anxious in the session, and hence impair their learning when they are weighed (leaving them more anxious in the long term).
- e) "I don't mind if you weigh me, but I don't want to know my weight". This statement is countered with: 'then we cannot do CBT, as you cannot learn to modify your beliefs'.
- f) "My previous therapists never weighed me". The most immediate argument against this very common statement is to point out that the previous therapy was clearly not effective enough, and that it is time to try an evidence-based approach.
- g) "I can't be weighed, because this is not the same day of the week/it is not the same time of day/I am not wearing the same clothes as last time". The appropriate response to this argument is that it is vital that the patient should be weighed under those conditions, to enhance their exposure to the fluctuations and the anxiety that they are trying to avoid.

Therapists' own justifications for not weighing patients include (but are not limited to):

- a) "It would ruin the therapeutic relationship". This justification fails at two different levels, which clinicians should be aware of. First, patients' perceptions of the working alliance are strong in CBT where weight is taken routinely (Waller et al., 2013). Second, the assumption that the therapeutic alliance is a driver of change in the eating disorders is highly questionable (e.g., Brown et al., 2013; Raykos et al., 2014).
- b) "The patient is weighed by another professional". This is a very common excuse for not

weighing the patient – that they are weighed either by another member of the team or even by someone outside the team. Even if one assumes good communication so that the therapist knows the latest weight prior to going into the therapy session (and that cannot be readily assumed), this approach means that there is no possibility of working with 'hot' cognitions in the therapy room, as the predictions are not to the forefront. By the time that the patient is in the therapy room, any anxiety at being weighed will have been defused.

- c) "The patient weighs themselves". The response to this should be as for the previous excuse the patient needs the therapist to be there to structure weighing as a cognitive and emotional challenge. Moreover, the therapist should discourage the patient from the anxiety-enhancing safety behaviour of self-weighing. For example, patients who self-weigh more frequently experience more negative eating concerns (Pacanowski et al., 2014), though the direction of causality needs further investigation.
- d) "I can judge the patient's weight by eye". Any therapist who believes this to be true needs to be reminded of the psychophysical construct of a 'just noticeable difference'. While that difference varies across sensory modalities, the likelihood of a clinician being able accurately to perceive even a fairly rapid change of a few kilograms is very low indeed. Continuing with the myth that we can see comparatively small changes weekly means that the patient's weight can increase or decrease substantially (by small amounts each week) over a long period of time, while we fail to see it by eye.
- e) "The patient is upset at the thought of being weighed today. We can do it next time". The clinician needs to consider what they are teaching the patient when they react in this way. In essence, they have taught the patient that anxiety-inducing elements of therapy can be avoided by expressing distress. We should not be surprised when the patient is more distressed next time we are the one who reinforced that behavior. Many supervisors will know the consequence either weighing drops off the agenda or it becomes a point of contention between patient and therapist, meaning that CBT stops taking place.

f) "There wasn't time to do it – other issues took over the session". The clinician needs to be aware that this is a clear sign that the agenda has been mismanaged (or omitted altogether), and that the therapy that is being delivered cannot be described as CBT.

Therapists also engage in other inappropriate weighing behaviors, which usually serve the function of reducing the patient's and therapist's anxiety. One such behavior is to weigh the patient as soon as they enter the room, thus meaning that the relevant predictions are not made or explored. Another is to calm the patient (e.g., "It probably doesn't mean anything that your weight went up this week"). Finally, it is common to see clinicians start a change that needs to take place over several weeks (e.g., exposure to eating before noon), only to revise the plan immediately if the patient has gained weight, even though that action negates any chance that the patient will learn from the planned change. In each such case, the consequence is the abandoning of the planned treatment targets (long-term reduction of anxiety; repair of the 'broken cognition'). Given that the patient's anxiety is inevitable, it is the duty of the therapist to work on their own anxiety reactions, as has been suggested in other fields (e.g., Farrell et al., 2013), so that we can be more robust in such circumstances.

Whilst holding all of the above in mind, there might be a desire to implement a more individualised, formulation-driven treatment. For some individuals who feel unable to be weighed, it is possible that they are struggling to engage with the active nature of CBT and would benefit from preparatory engagement work. As in the vignette of Michael, below, intrapersonal factors such as shame may play a significant role that cannot be resolved immediately despite the therapists' efforts. In these cases, we would recommend using supervision to ensure that one has not inadvertently 'drifted', developing a clear plan about how weighing will be introduced or moving forward in treatment. In such situations, it is helpful to acknowledge that evidence-based CBT cannot occur at this stage.

Finally, some services adopt policies about weighing the patient that are counter to effective delivery of CBT. Examples in everyday practice include:

a) Services that have a policy of weighing patients but not telling the patient their weight. In

an example under discussion on the Academy for Eating Disorders listserv during 2014, a service's policy was not to tell the patient their weight, because of the potential distress that it might cause, even though the patient was distressed at *not* being told their weight. The notion that one could reduce obsessive thinking about weight in this way seems to be based on a formulation that omits the central cognitions of the eating disorders.

- b) Services that ask other clinicians to weigh patients, but only expect an update when there is a substantial risk identified. The immediate issue here is that patients might be declining to be weighed or clinicians might not share views on what constitutes 'risk'. In CBT, there is no possibility that eating patterns and weight change can be connected cognitively.
- c) Services that require the patient to be weighed only by a specific clinician and/or on a particular day, meaning that the therapist cannot weigh the patient during therapy. While this approach might be about ensuring professional demarcation or about ensuring consistency of the service delivery across patients (e.g., to avoid concern about inpatients being treated differently), it does not allow CBT to be practiced effectively.
- d) Service culture about how taking weight is introduced to the patient. One example of this is the contrast between two services in the same city, one of which introduced weighing with: "It might be a good idea if we could weigh you now", and the other with: "We need to weigh you now". The former had a much lower rate of success in getting eating-disordered patients weighed, making it less likely that their use of CBT will be viable. Another example comes from two treatment arms within the same service:

Jenna (pseudonym), 33, had been with the same arm of a service for 11 years, being seen by a series of clinicians who worked to a policy of working within the bounds of what the patient was prepared to do. Due to staff changes, she was taken on by a CBT clinician. Over the 11 years she had been weighed by her clinicians but had not been told her weight. The conditions of her being weighed were complex (e.g., could not be weighed on one week in four as this would allow for menstrual cycle variation in weight, even though she was anorexic and had no menstrual

function; had to reverse onto scales, with the display covered by the therapist even though she could not see it). The CBT clinician asked her why this apparent ritual had grown up, and Jenna could not remember. The clinician suggested that she would only learn about what happened to her weight if she were weighed, and the patient said that she was happy to be weighed forthwith. Over the next six months, she regained the weight needed to move away from her diagnosis of anorexia nervosa and recovered fully.

In each of these cases, the response needs to be one where the service considers its policy. To do so, it can sometimes require colleagues to be frank enough to discuss whether the aim is to develop a policy that is agreed on and less anxiety-provoking for all concerned, or whether that policy is permit the implementation of evidence-based treatments.

### Considerations for specific individuals or groups

In this paper, we have discussed guidelines for the process of weighing individuals with eating disorders within a CBT framework. However, there may be some situations where adaptations maybe required, including inpatients, individuals with high levels of shame, those who are obese, and individuals with physical complicating factors.

a) Inpatients. Many inpatient units have robust procedures for weighing patients, which often entail being weighed in underwear before breakfast on a set day or days of the week. Frequent weighing is more likely to be justifiable on the grounds of monitoring safety than ensuring weight gain, as Touyz et al. (1990) have demonstrated no advantage to daily weighing of in-patients over less frequent weighing. Patients are expected to follow a set meal plan and are often supervised during and after eating. Progress and decisions regarding treatment and leave might be based in part on an individual's weight and change in weight, perhaps leaving less flexibility to work in a 'pure' CBT style with the use of behavioral experiments. If the unit policies on weighing and dietary intake are seen as being immutable, individual CBT clinicians might need to adapt their practice, depending on the parameters of the ward on which they work. Therefore, it could be unhelpful for the patient to weigh them again in the session.

However, it is important to prepare patients for in-session weighing as they approach discharge to less intensive treatment.

b) Shame. Many of our patients present with varying levels of shame. At extreme levels, shame related to being weighed might jeopardise the therapeutic alliance and interfere with the individual's ability to engage in therapy.

Michael (pseudonym), 35, presented with severe bulimia nervosa and was morbidly obese. He reported social isolation and a history of dropping out of work and studies, in part because of shame about his size. His therapist noted that it was hard to form a therapeutic alliance with him. After six sessions, Michael contacted his therapist to say that he had to stop therapy because he was unable to tolerate the shame associated with being weighed in session. He stated this was all-consuming and he was unable to focus on session content because of it. Michael's therapist praised his honesty and encouraged him to come into the centre to discuss ways forward. Together they agreed that Michael would weigh himself on the morning of his session and email this to the therapist. The therapist plotted this on a graph. Over time, as Michael's bingeing and purging decreased, the therapist used the graph to show how weight had stabilised, further motivating Michael and enabling them to explore weight without triggering such intense levels of shame.<sup>4</sup>

Using self-report was possible in this situation because there was no concern that the patient would falsify the data. If there are any concerns that a patient might falsify data, self-report is contraindicated.

c) Individuals with obesity. Some individuals we work with may fall within the morbidly obese range. There may be assumptions among some staff that because they are obese it will be too distressing or stigmatising to insist on weighing. It is still important to weigh these patients, in part to track progress (a goal might be to improve eating to stop further weight gain) and in part to challenge cognitions about the impact of eating upon weight and to repair the 'broken cognition'. It is important therefore to have scales that measure up to a high level with appropriate sensitivity. This provision can help to bypass

<sup>&</sup>lt;sup>4</sup> It must be emphasised that this was an exceptional case and one of the rare occasions where the risk of disengagement outweighed the benefits of in-session weighing. It also reflects CBT practice from some years before (see Table 1).

real stigmatizing situations, such as 'Sorry, but we just don't have scales that go up high enough to weigh you' (a fear that some obese patients have, when they believe that they will be the only overweight person in a clinic of underweight patients) or 'We will need you to stand with one foot on each of two sets of scales to weigh you' (again, an experience reported by some obese patients in eating disorder clinics).

d) Individuals with medical complications. In such situations, it is important to be sensitive to an individual's needs. For individuals who are wheelchair bound, seated weighing scales are indicated. Some patients may feel embarrassed that they will be seen as 'awkward' if such scales are not close by, and it is important to respect their dignity. In the case of those who have lost limbs, using parameters such as blood tests and vital signs is likely to be more useful to assess risk, but regular weighing remains important to show intra-individual shifts (and to link them to eating patterns). If an individual has a plaster cast or other reason for true weight being hard to be sure about (e.g., the patient has breast implants), the baseline can be adapted either short-term (e.g., until the plaster cast is removed) or long-term (e.g., noting the weight of implants).

#### Conclusion

This review has considered the role of weighing patients within CBT for eating disorders. While it is commonly recommended as a core technique in most evidence-based therapies, the level and clarity of recommendation is variable. Some manualized approaches do not make it clear whether or how weighing should be conducted, and recommendations about how weighing should be done within CBT have changed substantially in recent years. Current recommendations are that the CBT therapist should weigh the patient within each session, and that the information should be shared with the patient. Devolving the task to another clinician or to the patient throughout is not viable. Reasons for weighing the patient include issues of safety, anxiety reduction through exposure, and addressing the core 'broken cognition' in the eating disorders. A CBT-compatible weighing protocol has been outlined here, stressing that the great majority of the task takes place when the patient is not

on the scales.

Of course, there are reasons why patients, clinicians and services are reluctant to undertake this core task of CBT for eating disorders. However, many of those reasons are rooted in the anxiety of some patients and clinicians (e.g., Turner et al., 2014). None is adequate to overcome the need for weighing to be used as a key element of CBT for eating disorders, and to be used appropriately. Unfortunately, the evidence is that CBT (along with other therapies) is often delivered without weighing being used at all, or with it being used in ways that make it impossible to work with the relevant emotions and cognitions (e.g., Forbush et al., in press; Waller et al., 2012). Given this diversity of practice, it will be important to undertake two future strands of research. The first is the need for studies of the impact of training clinicians in the appropriate use of weighing. The second relates to the earlier point about the need for specific evidence that weighing is a necessary element of CBT for eating disorders, and would require dismantling studies that remove the open weighing element from evidence-based CBT (which would not be dissimilar to earlier recommendations in CBT). Regardless of the outcome of such studies, it is clearly important that protocols should be clear in their recommendations about whether to weigh patients, when to do so, and how.

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Table 1 Guidance regarding weighing patients in different psychological treatment protocols (adult patients unless specified).

Authors	Therapy	Details of weight measurement and recording
Cognitive beha	vioral therapies	
Garner & Bemis	CT for anorexia	Patient's current weight provides data that "may be useful"
(1982)		Nothing specified about how weight is measured or obtained
Fairburn (1985)	CBT for bulimia	Patient to weigh self once a week to a regular schedule
		Warn patient about temporary increase in weight concerns
Fairburn et al.	CBT for binge eating	Patient to weigh self once a week to a regular schedule
(1993)	and bulimia nervosa	• Therapist should <i>not</i> weigh the patient, apart from at the beginning and (possibly) the end of therapy,
		to avoid becoming the focus of sessions
Wilson et al.	CBT for bulimia	Patient to weigh self once a week to a regular schedule
(1997)	nervosa	Used to help patient understand the (lack of) impact of changes in eating patterns on their weight
Garner et al.	CBT for anorexia	Patient's weight to be checked regularly "by the therapist or another reliable source"
(1997)	nervosa	Weight is checked and discussed weekly
		Must be monitored for patient's safety
Waller et al.	CBT for eating	Patient weighed every week (a non-negotiable of treatment)
(2007)	disorders	Self-weighing between sessions is discouraged, unless part of an experiment on the effects of
		checking
		Patient sees and is told their weight
		Used explicitly for purposes of cognitive challenging
		Weight is interpreted using several sessions' readings
Fairburn (2008);	CBT-E for eating	Patient weighed in therapy every week, or every session if underweight (initially, two sessions a week)
Zipfel et al.	disorders	Weighing between sessions is discouraged
(2014)		Patient sees and is told their weight
		Weight is interpreted using several sessions' readings
Gowers & Green	CBT for children and	Weighing in the session is a non-negotiable
(2009)	young people with	Patient needs to know their weight

	ı	
	eating disorders	Aim to reduce anxiety through exposure
		Weight taken as mean of several sessions
Cooper et al.	Metacognitive and	Patient asked their weight at assessment (rather than being weighed)
(2009)	CT for bulimia/ binge	No other weight measurement included in protocol
	eating	Physician recommended to weigh patient (if the patient agrees) at baseline and thereafter
Pike et al. (2010)	CBT for anorexia	Weight to be measured by the therapist or another professional, assisting the patient to monitor it
	nervosa	Responsibility for weighing to be transferred to the patient in time
Touyz et al.	CBT for anorexia	Modified from Pike et al. (2010)
(2013)	nervosa	Weight taken by the therapist before the session and discussed with the patient (Touyz, personal)
		communication)
Family-based th	nerapies	
Lock et al. (2001)	FBT for anorexia	Therapist checks patients weight in each session
	nervosa in	Non-negotiable part of treatment
	adolescents	Discussed with the patient and the family as an index of progress
Le Grange &	FBT for bulimia	Therapist checks patients weight in each session
Lock (2007)	nervosa in	Discussed with the patient as an index of progress
	adolescents	Discussed with the family only if necessary (e.g., risk)
Eisler et al.	FBT for eating	Patient is usually weighed, and the patient's weight is discussed with them and with the family
(2007)	disorders in younger	• Exceptionally, if the clinician concludes that this should not be done initially, this issue is treated as part
	cases	of the dynamic of therapy
		Later in therapy, the regularity and scheduling of weighing is negotiated as appropriate to tolerating
		uncertainty (Eisler, personal communication)
Dialectical beha	vior therapies	
Wisniewski &	DBT for eating	Weighing is a core part of therapy (refusal to be weighed seen as a therapy interfering behavior)
Kelly (2003)	disorders	Weight communicated to patient in all cases bar those when the patient declines to be told, in which
		case they are told about direction of weight change (Wisniewski, personal communication)
Marcus & Levine	DBT for bulimic	Patients were weighed in-session
(2004)	disorders	Patients had to be aware of their weight (Marcus, personal communication)
Safer et al. (2009)	DBT for binge eating	Patient weighs themselves weekly, on a regular schedule
L		

	and bulimia	Can be weighed by the therapist (Safer, personal communication)
Federici &	DBT for complex	Patient weighed weekly or twice a week by clinic staff
Wisniewski	eating disorders	Patient informed of their weight (Wisniewski, personal communication)
(2013)		
Lynch et al.	DBT for anorexia	Patient weighed by dietitian rather than therapist
(2013)	nervosa	BMI measured at beginning and end of therapy and weekly during therapy, and patient informed of
		their weight, but the weighing took place outside of the therapy itself (Lynch, personal communication)
Other evidenc	e-based therapies	
Fairburn et al.	IPT for bulimia	No weighing (Fairburn, personal communication)
(1993)	nervosa	
Wilfley et al.	IPT for binge eating	Advisable to weigh the patient at each session, to link weight loss or gain to current interpersonal
(2002)	disorder	problems (Wilfley, personal communication)
McIntosh et al.	SSCM for anorexia	Regular weighing during early part of therapy
(2010);	nervosa	In sessions, at home between spaced out sessions, and/or by family physician
Schmidt et al.		Therapy continues in the short term if the patient does not want to know their weight, with issue
(2012)		revisited
Touyz et al.	SSCM for anorexia	Modified from McIntosh et al. (2010)
(2013)	nervosa	Weight taken by the therapist before the session and discussed with the patient (Touyz, personal)
		communication)
Schmidt et al.	MANTRA for	Patient weighed at every session
(2012)	anorexia nervosa	Weight shared with patient
		Exceptionally, patients may self-monitor if providing evidence of their weight, as long as the physical
		risk is not high (Schmidt, personal communication)
Zipfel et al.	FPT for anorexia	Patient weighed every session by researcher/other staff members, who reports the weight to the
(2014)	nervosa	therapist (Zipfel, personal communication)

Key: CBT – cognitive behavioral therapy; CBT-E – enhanced cognitive behavioral therapy; CT – cognitive therapy; DBT – dialectical behavior therapy; FBT - family based therapy; FPT - focal psychodynamic therapy; IPT - interpersonal psychotherapy; MANTRA -Maudsley model of anorexia nervosa treatment for adults; SSCM – specialist supportive clinical management