Delusions in Anorexia Nervosa

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Abstract

Anorexia nervosa involves seemingly irrational beliefs about body size and the value of thinness. Historically, researchers and clinicians have avoided referring to such beliefs as delusions, instead opting for the label 'overvalued ideas'. I discuss the relationship between the beliefs associated with anorexia nervosa and the distinction between delusions and overvalued ideas, as it is conceived in both European and American psychiatric traditions. In doing so, I question the benefit of applying the concepts of delusion and overvalued idea to anorexia nervosa and raise some issues with contemporary use of the Brown Assessment of Beliefs scale for assessing the level of delusionality associated with the disorder.

1. Introduction

This chapter discusses the relationship between the beliefs associated with anorexia nervosa (AN) and the concepts of *delusion* and *overvalued idea*. I challenge the utility of labelling the beliefs associated with AN as delusions or overvalued ideas and raise some issues with contemporary methods of assessing the delusionality of those diagnosed with AN.

While the renowned clinician Hilde Bruch (1974) characterised AN as involving a 'delusional denial of thinness', in the decades following her work, researchers studiously avoided the term. The refusal to refer to the beliefs associated with AN as delusions stems from two assumptions. First, delusions are exclusively associated with disorders of psychosis; because AN is not classified as such, the label delusion cannot apply (Veale 2002: 385). However, deciding whether a belief is a delusion based on whether the patient is diagnosed with a disorder of psychosis puts the cart before the horse. Delusions are symptoms, and symptoms are independent of the conditions that they are associated with (Clutton & Gadsby 2018; Sakakibara 2016). Sadness, for example, is a symptom of a mood disorder, but it can also occur in the absence of any disorder whatsoever (Horwitz & Wakefield 2007).

The second, related assumption is that the beliefs associated with AN are better thought of as *overvalued ideas*—a distinct category to delusions (P. McKenna 1984). This chapter will focus on this claim and the arguments for it. In fact, there are two ways to conceive of the distinction between delusions and overvalued ideas—emanating from European and American psychiatric

traditions, respectively (Veale 2002). According to the American tradition, overvalued ideas and delusional beliefs sit on a continuum and are distinguished by the strength with which they are held. In contrast, the European tradition considers overvalued ideas and delusions as conceptually distinct categories of belief. In this chapter, I discuss both ways of characterising the distinction.

There are various attitudes associated with AN that might qualify as delusions. The most recognisable symptom of the disorder is an extreme desire to lose weight (Bruch 1965). Such desires appear pathological because of their extreme nature, their centrality to other symptoms, and the harm they cause (Tan et al. 2006). Nevertheless, pathological desires are not considered delusions, as (at least within scientific research and clinical practice) the term exclusively applies to beliefs (or belief-like states) (Clutton 2018; Mullen & Gillett 2014).

AN involves two categories of clinically relevant beliefs: beliefs about body size and the value of thinness (Gadsby 2023a).[1] The former category involves the belief that one is overweight, has an average body size, or is not thin. In standard cases of AN—where the patient has a severely low body mass index (BMI)[2]—such beliefs are not only false but implausible. However, it is worth spelling out where this implausibility stems from. A common misconception is that the body size beliefs associated with AN stem from extreme evaluative standards, i.e., those with AN have such extreme standards for what constitutes thinness that even their bodies don't qualify. However, while those with AN aspire to be thinner than most, their standards for ideal body size are not extreme. In most cases, body size beliefs are inconsistent with patients' own

standards for ideal size (Moscone et al. 2017). Instead, those with AN often believe that they aren't thin because they hold false beliefs about the dimensions of their bodies (Gadsby 2023b).

The second category of beliefs associated with AN relate to the value of thinness. Individuals diagnosed with AN often believe that thinness is of paramount importance and associate it with various positive values such as accomplishment, self-worth, and moral superiority (Bruch 1978; Tan et al. 2006; Vitousek 1996; Vitousek, Watson, & Wilson 1998; Wolf & Serpell 1998). While debates over whether AN involves delusions often conflate these two forms of belief, they likely stem from different factors and therefore should be evaluated separately (Gadsby 2023a).

The chapter is structured like so: first, I discuss whether the body size beliefs associated with AN are more like delusions or overvalued ideas, according to the European tradition. While I do not provide a definitive answer to this question, I note that these beliefs bear many characteristics associated with delusions. I also discuss the status of beliefs about the value of thinness and suggest that these bear more similarity to overvalued ideas. Next, I address the American distinction between delusions and overvalued ideas. I review research on the extent of delusional beliefs and overvalued ideas associated with AN, under this definition, and point out some issues this research faces. My more general point is that while it is essential to understand the beliefs associated with AN, the question of whether they qualify as delusions or overvalued ideas (according to one or another psychiatric tradition) is less important.

2. Body size beliefs: delusions or overvalued ideas?

While the DSM provides the most well-known definition(s) of delusional beliefs, it has consistently been criticised, as it excludes many beliefs commonly regarded as delusions and includes many beliefs that are not (Davies et al. 2001; Langdon & Bayne 2010). As things stand, there is no widely agreed-upon definition of delusions involving necessary and sufficient criteria, i.e. that includes all appropriate cases and excludes all inappropriate cases. Consequently, we cannot determine whether a belief qualifies as a delusion based exclusively on whether it satisfies a set of definitional criteria.

An alternative approach to evaluating whether a belief qualifies as a delusion is to focus on paradigmatic features of delusions and assess whether and to what extent those are present in the target beliefs. Robyn Langdon and Timothy Bayne (2010) suggest such an approach, focusing on the *cardinal signs* of delusion: incorrigibility, incomprehensibility, and conviction, three characteristics that have a long-standing association with delusionality (in the European psychiatric tradition), emanating from the work of Karl Jaspers (1997) (see also Spitzer 1990). As I will show, the body size beliefs associated with AN often exhibit each of these signs.

First, consider incomprehensibility. Langdon and Bayne distinguish between two kinds: *sheer* incomprehensibility, which holds across contexts, and *contextual* incomprehensibility, which is context sensitive (2010:321). Body size beliefs do not exhibit sheer incomprehensibility. Unlike other delusions—such as the belief that one has three snakes in their belly or speaks through soul telephones (Hohwy & Rajan 2012)—the belief that one's body is not thin is commonplace;

many neurotypical individuals hold beliefs with the same content. Nevertheless, the belief that one is not thin is contextually incomprehensible, that is, it is incomprehensible when held by those who are excessively thin.

Incorrigibility can be defined as 'the persistence of the belief in the face of counterevidence and rational counterargument' (Langdon and Bayne 2010: 322). Many body size beliefs undeniably exhibit incorrigibility. Indeed, a hallmark feature of AN is its resistance to treatment, which includes attempts to reason with patients or present them with incontrovertible evidence regarding their body size (Fassino & Abbate-Daga 2013). Despite the pleas of doctors, friends, and families, those with AN persist in their beliefs and behaviour, therefore demonstrating incorrigibility.

The standard way to conceive of conviction is in terms of how much certainty is verbally expressed. This form of conviction is a well-noted feature of AN, as one handbook states, 'a striking feature of anorexia nervosa or bulimia nervosa is the person's conviction about the existence (or severity) of the physical defect' (Rosen 1997: 190). Langdon and Bayne, however, suggest an *epistemic* notion. Specifically, they highlight the importance of *unwarranted* conviction 'in light of general knowledge and/or the evidence to hand, either or both of which ought normally to confer doubt' (2010: 336). Again, this is characteristic of the body size beliefs associated with AN. Indeed, any conviction in such beliefs seems entirely out of line with the wealth of evidence contradicting them (e.g., weight scale readings, knowledge of clothes size, testimony from family and friends, etc.) (cf. Gadsby 2023b).

These three cardinal signs are neither necessary nor sufficient for classifying a belief as delusional. Many (seemingly) non-delusional beliefs exhibit each characteristic—such as religious beliefs (David 1999)—and many delusional beliefs miss one or more of these features. For example, some with delusions appear to exhibit low conviction in their beliefs (these are also sometimes referred to as *partial* delusions) (Mullen & Gillett 2014), others don't satisfy the incorrigibility condition, as they can be convinced (albeit temporarily) out of their delusions (Coltheart 2007: 1054). Consequently, the presence (or absence) of these criteria can't ground a definitive argument in favour of (or opposed to) a belief's delusional status. Nevertheless, their presence can constitute evidence in favour of the classification. Given that each criterion is associated with at least some body size beliefs held by patients with AN, this supports classifying these beliefs as delusions.

As noted, one of the most common arguments that body size beliefs in AN are not delusions is that they are better characterised as overvalued ideas. Primarily arising from the work of Carl Wernicke (1906) and Jaspers (1997), an overvalued idea—as it is conceived in the European tradition—can be defined as:

> an isolated, preoccupying belief, neither delusional nor obsessional in nature, which comes to dominate the sufferer's life, often indefinitely. In many cases it seems to develop, to some extent comprehensibly, out of a previously abnormal personality, but it can equally be a sign of emerging psychosis or organic disorder. The concept has a reputable, but neglected tradition and carries an air of being of limited clinical relevance. (P. McKenna 1984: 579)

An essential feature of this definition is that overvalued ideas are distinct from and in contrast to delusions. Nevertheless, as with delusions, there is no definition of an overvalued idea in terms of necessary and sufficient criteria.

There is a close theoretical link between AN and the European notion of an overvalued idea. In fact, AN is even used as a motivating factor in retaining the concept; Peter McKenna, an early proponent of both overvalued ideas and their association with AN, writes:

> Despite being ignored, misunderstood and lost altogether on American psychiatry (it is difficult to resist the temptation to say undervalued), there seems to be a clear need for such a second category of abnormal belief [overvalued ideas]. Trying to deny its existence simply leads to contradictions, of which the nature of the belief in anorexia nervosa is the most glaring example. (2017: 34)

The arguments for classifying the body size beliefs associated with AN are, however, sparse and unconvincing. One of the earliest is offered by McKenna himself, who refers to the *phenomenology* (by which he means characteristics) of body size beliefs in AN:

> … the anorexic's conviction that she is overweight … is held with extreme tenaciousness, and in the face of the plainest possible evidence to the contrary; it is never, however, considered delusional. The belief is preoccupying, acted on unquestioningly, and leads the patient to engage

> in sustained abnormal behaviour. … The phenomenology of anorexia nervosa thus shows features that are characteristic of an overvalued idea (P. McKenna 1984: 583)

In this excerpt, McKenna points to body size beliefs' preoccupying and action-driving nature—other features of (clinical) belief commonly associated with the European notion of an overvalued idea. However, these are not sufficient conditions for overvalued ideas (Veale 2002: 385). Preoccupation is a pervasive aspect of delusions (Sisti et al. 2012), and those with delusions often act on them (Bourget & Whitehurst 2004). Given that these features are present in many instances of delusion, more is needed to support the claim that false body size beliefs in AN are overvalued ideas rather than delusions.

Many proponents of the European distinction between overvalued ideas and delusions consider aetiology an essential distinguishing factor. Most notably, they emphasise that overvalued ideas are commonly (though not exclusively) associated with personality traits (Oyebode 2023: 132). This is echoed by McKenna, who, in arguing for the relationship between AN and overvalued ideas, notes that 'a prominent aetiological factor in anorexia nervosa, and the only one that can be identified with certainty, is abnormal personality' (1984: 583). If the body size beliefs associated with AN stemmed from personality factors, rather than factors that generally give rise to delusions, this would constitute an argument in favour of them being considered overvalued ideas.

The aetiology of false body size beliefs in AN remains an open question. While various personality traits are associated with AN and other eating disorders (Lilenfeld et al. 2006), it is

not yet clear how features of one's personality could give rise to false beliefs about their bodily dimensions. It has also been argued that body size beliefs bear a striking similarity to the aetiology of delusions. An influential explanation for delusions is that they constitute responses to abnormal experiences (Maher 1974), which themselves stem from cognitive or neurological malfunctions of some form (Coltheart 2007). In a similar vein, it has been argued that the body size beliefs associated with AN arise from abnormal experiences of body size, stemming from malfunctioning mental representations of the body (Gadsby 2017a, 2017b, 2020, 2023b). If this explanation is accurate, the aetiology argument favours labelling body size beliefs as delusions rather than overvalued ideas.

3. Beliefs about the value of thinness

While the body size beliefs associated with AN may have more in common with delusions than overvalued ideas, many arguments for the association between overvalued ideas and AN have a different target in mind, namely, beliefs about the value of thinness (Cooper & Fairburn 1993). Value-based beliefs are not typically considered delusions, partly because (much like desires) they are not straightforwardly truth-evaluable. As David Veale notes, values are 'subjective', 'personal', and 'not subject to empirical testing' (2002: 386), making it difficult to assess their incomprehensibility. The DSM-V does, however, allow for the possibility of delusional value-based beliefs, stating: 'When a false belief involves a value judgment, it is regarded as a delusion only when the judgment is so extreme as to defy credibility' (APA 2013: 819; see also Fulford

1991). Consequently, we cannot rule out classifying beliefs about the value of thinness as delusions.

The value of thinness beliefs associated with AN, however, fit the concept of an overvalued idea much better. For example, working from the European tradition, Veale argues that overvalued ideas are best characterised as involving three conditions. First, they are value-based, rather than factual beliefs. Second, they are dominant and idealised. Third, they are excessively identified with the self. According to this definition, factual beliefs about the body cannot qualify as overvalued ideas, but beliefs about the value of thinness are an appropriate match. Such beliefs dominate patients' lives to a considerable degree (Tan et al. 2006) and are strongly associated with their self-identities (Gregertsen, Mandy, & Serpell 2017). Indeed, the way in which those with AN identify with their values regarding thinness is well-recognised as a contributing factor to treatment resistance (Fixsen et al. 2022; Vitousek et al. 1998). Finally, in terms of aetiology, value of thinness beliefs may bear more similarity to overvalued ideas, as there is a plausible link between such beliefs and personality traits, such as perfectionism (Fairburn, Cooper, & Shafran 2003).

In applying the European concepts of delusion and overvalued idea to the case of AN, body size beliefs bear more resemblance to delusions, while beliefs about the value of thinness bear more resemblance to overvalued ideas. However, as I have reiterated, there is no clear way to distinguish between these categories: each identifying characteristic of one form of belief is sometimes present in the other form. A more critical issue, then, is whether there is any benefit

to retaining the distinction. Of course, it is important to research and document the characteristics and aetiologies of the different beliefs that are clinically related to AN. However, beyond doing so, we should question whether applying labels such as 'delusion' or 'overvalued idea' delivers any further explanatory benefit.

4. Continuum delusionality and the Brown Assessment of Beliefs Scale

The distinction between overvalued ideas and delusions has been reconceived within the American psychiatric tradition, and this conception has strongly influenced AN research in the past decade. To illustrate the American distinction between delusions and overvalued ideas, consider the DSM-V's definition of an overvalued idea: 'an unreasonable and sustained belief that is maintained with less than delusional intensity (i.e., the person can acknowledge that the belief may not be true)' (APA 2013: 826). In defining delusions, it also states, 'delusional conviction can sometimes be inferred from an overvalued idea (in which case the individual has an unreasonable belief or idea but does not hold it as firmly as is the case with a delusion)' (p. 819). As in the European tradition, an overvalued idea is identified as (somehow) less than delusional. However, there is no emphasis on aetiology or other belief characteristics. Instead, overvalued ideas have the same characteristics as delusions, albeit being held with less strength (Veale 2002: 384). This characterisation rests on the so-called *continuum* view of delusionality, which assumes that pathological beliefs can be rated on a continuum, from delusions to overvalued ideas to beliefs held with good insight (Eisen et al. 1998).

The Brown Assessment of Beliefs Scale (BABS) (Eisen et al. 1998) is the primary diagnostic tool used to assess clinically relevant beliefs under the continuum view. The BABS is a semi-structured interview that begins by establishing relevant belief content with a participant and evaluating the strength with which that belief is held, based on several features. The scale is primarily determined by how much conviction is associated with the belief, which is assessed by asking how convinced the participant is of the relevant statement and how certain they are of its accuracy. To count as delusional, a subject must rate four out of four on the conviction scale and have a total score of eighteen or above when combining conviction with five other items: the ability to assess the beliefs of others in regard to one's own belief, the ability to explain the difference between one's own and others' views of the belief, the incorrigibility of the belief, how actively/frequently one tries to disprove or reject the belief and the recognition that the belief has a psychiatric/psychological cause (Konstantakopoulos et al. 2012: 483).

The continuum view of delusionality, as measured by the BABS, faces some conceptual issues. First, it departs considerably from the traditional concept of delusion, as characterised by the cardinal signs. While the BABS incorporates conviction and incorrigibility (two of the cardinal signs), it is unclear why strong conviction is a necessary condition for delusion but not strong incorrigibility. As noted, clinicians often classify those with less conviction as holding at least 'partial' delusions, but the continuum disposes of this category entirely (Mullen 2003: 507). It also leaves out the implausibility of the belief, which is often considered an essential aspect of delusions (Mullen 2003). Instead, it is left to the administering clinician to identify the belief content that is most relevant (see below).

Putting aside conceptual issues with the continuum view, measuring differences in the strength with which pathological beliefs in AN are held is an important task. For example, qualitative research illustrates significant heterogeneity regarding the strength with which body size beliefs are held. Many patients insist they are not underweight and indicate no doubt whatsoever (Espeset et al. 2011; O'Connell et al. 2018). When faced with counter-evidence, these patients often generate (sometimes highly implausible) rationalisations to explain away such evidence. For example, to explain their apparent low weight, some claim that their scales must be broken or that their bones are 'lighter than usual' (Espeset et al. 2011). Many also adopt beliefs about their biological exceptionality to explain why their bodies can maintain weight and function properly, despite such low caloric intake (O'Connell et al. 2018). As one patient describes, 'my body doesn't treat food like it should…so on that train of logic, I don't need to eat like a normal person' (O'Connell et al 2018: 5).

Instead of rationalising away counter-evidence, others appreciate the apparent contradictions between their beliefs and their evidence and background knowledge of the world:

> I know logically it doesn't make sense, but I believe it, but I know it's not right. I mean I've done physiology and anatomy, I've got a degree, I know it doesn't make sense, but I can't explain it. I know it all sounds crazy but I know it makes sense in my head even though it doesn't.
> (O'Connell et al 2018: 6)

This is similar to many traditional cases of delusions, wherein patients acknowledge the absurdity of their beliefs. As Anthony David (1999: 18) notes, 'A surprising number of deluded patients admit that their belief is strange; some may acknowledge it to be "hard to believe." They may even say they know that it is impossible.' Some who suffer from AN also appear to drop all certainty and suspend judgment about their true body size, for example, claiming 'I don't know how I really look' or 'I've lost my sense of reality' (Espeset et al. 2012: 522).

Several studies have attempted to quantitively assess these differences in belief strength by employing the BABS, concluding that while some patients exhibit strong enough conviction in their body size beliefs to be considered delusional, most do not hold their beliefs with delusional strength, instead being classified as holding overvalued ideas, or exhibiting good insight (Barton et al. 2022; De Young et al. 2022; Hartmann et al. 2013; Kambanis et al. 2022; Konstantakopoulos et al. 2020; Konstantakopoulos et al. 2012; G. McKenna, Fox, & Haddock 2014; Mountjoy, Farhall, & Rossell 2014; Şenay & Yücel 2022; Steinglass et al. 2007). There are, however, several theoretical issues plaguing this research program, which I document below.

One issue relates to the content of the beliefs studied. As noted, researchers start by establishing target beliefs with participants. This process begins with a prompt, for example, asking the participant 'what thoughts and beliefs she had about her body weight and shape that might interfere with eating' (Konstantakopoulos et al. 2012: 483; similar prompts were used by: Konstantakopoulos et al. 2020, Şenay & Yücel 2022; Mountjoy et al. 2014). While prompts like this may exclusively identify body size beliefs, no prompt is standardly employed. For example,

Joanna Steinglass and colleagues (p. 66) report that 'the dominant belief was elicited by explaining to the patient that the interview aimed to assess beliefs that interfere with eating, even if these beliefs seem irrational'. Other prompts are similarly open ended, for example, 'What ideas or beliefs do you have that are of significant concern to you, specifically about food, eating, or your body shape or weight?' (De Young et al. 2022; Kambanis et al. 2022). Unfortunately, some studies do not report the prompt they used (Hartmann et al. 2013; McKenna et al. 2014; Barton et al. 2022) and only three report the kinds of belief content studied.[3] The lack of standardisation in the prompts used when administering the BABS has led to mixed results, which obscure the true nature of belief strength associated with AN.

The three studies that reported information about the content of the beliefs used open-ended prompts, and their results show considerable diversity in the content of beliefs. For example, Steinglass and colleagues reported beliefs about losing control ('If I eat [something forbidden], I will lose control'), being full ('If I eat, it will stay in my stomach undigested and I'll never feel hungry again'), the immediate effects of eating or feeling full ('If I feel full, I will change shape right away'), and the value of thinness ('If I'm thin enough, I won't get traumatized/attacked again') (p. 68). Evelyna Kambanis and colleagues and Rachel Barton and colleagues also reported diverse belief content. Some beliefs related to the immediate effect of feeling full ('If I feel full, then I am a bad person', 'If I eat anything, I will gain weight'), others to the value of thinness ('I am worthless as a person because my body is disgusting'), and some related to denying thinness or the importance of control. Consistent with the results of qualitative research (O'Connell et al.

2018), some beliefs also related to biological exceptionality (e.g. 'If I eat, I won't be able to go to the bathroom because my body can't process food') (Kambanis et al. 2022).

Apart from these three studies, others who employ the BABs do not supply information about the belief content the scale applied to. Consequently, it is difficult to ascertain the kinds of beliefs each study targeted. It is standard in the literature to compare results from different studies (Phillipou, Mountjoy, & Rossell 2017). However, if different studies measure different kinds of beliefs, then such comparisons are inappropriate. As noted, the various clinically relevant beliefs associated with AN are different in kind. Some are body size beliefs, which may stem from misperception of the body, others, such as beliefs about physical exceptionalism may stem from an attempt to rationalise evidence that contradicts body size beliefs. Beliefs about the value of thinness are also notably different and may be linked to personality traits. These categories of belief should not be treated as equivalent.

Consistent with the assumption that different studies are tapping into different kinds of beliefs, the results from studies employing the BABS are mixed. The percentage of beliefs diagnosed as either delusions or overvalued ideas differs considerably. The mixed nature of these results can partly be explained by variation in samples (i.e., type of treatment facility), as well as small sample sizes, however, it may also be related to heterogeneity in the types of beliefs studied.

This research program also faces issues related to selection bias. Most participants in these studies were undergoing treatment (either as in- or out-patients) at the time of participating.

This suggests that many had already received some level of treatment. Consequently, these samples disproportionately represent those with good insight, given that developing such insight is a key focus in treatment. Indeed, even selecting participants willing to participate in research studies may bias the sample towards those with greater insight, as participating in a study for patients with a disorder requires accepting that one does in fact suffer from a disorder, which many deny (see below).

This is, of course, not the fault of the experimenters. Testing participants currently receiving treatment is standard practice in eating disorder research. However, it does raise questions about the reliability of the inferences drawn from this research. Before clinical intervention, those with AN generally exhibit poor insight and firm conviction in their body size beliefs, insisting they are not too thin and that nothing is wrong (Kaplan & Garfinkel 1999; Noordenbos 1992; Vitousek et al. 1998). We ought to, therefore, be careful in assuming that these samples accurately represent the broader population of those who suffer from AN. Given that many with AN exhibit poor insight and high belief conviction prior to clinical intervention, it might be that a more significant proportion of AN sufferers hold their beliefs with delusional strength, despite only a minority maintaining that strength after receiving treatment. This speaks to the importance of conducting these studies on community samples, though such a task may be practically difficult.

There is undoubtedly considerable diversity among the strength with which clinically relevant beliefs are held in AN. Measuring this diversity and studying the relationship between belief

strength and measures of clinical severity is an important task. However, a more careful approach to such research is needed; specifically, studies must clarify, limit, and report the kinds of belief content that they focus on. Research into the strength of clinically relevant beliefs (in AN or any other disorder) can also proceed without labelling the relevant beliefs as delusions or overvalued ideas, based exclusively on the strength with which they are held. Just as those working within the European tradition must ask themselves whether there is any explanatory benefit to applying the label 'delusion' or 'overvalued idea' to a mental state whose characteristics we already know, those working within the American tradition should question whether assessing the strength of clinically relevant beliefs benefits from the conceptual baggage associated with those terms.

5. Conclusion

I surveyed the conceptual landscape related to beliefs associated with AN and the distinction between delusions and overvalued ideas, as conceived within European and American psychiatric traditions. I identified two categories of clinically relevant beliefs: body size beliefs and beliefs about the value of thinness. According to the European tradition, beliefs about body size bear more resemblance to delusions, while beliefs about the value of thinness bear more resemblance to overvalued ideas. According to the American tradition, delusional beliefs and overvalued ideas lie on a continuum, distinguished exclusively in terms of the strength with which they are held. Consequently, both body size beliefs and beliefs about the value of thinness could qualify as delusions, overvalued ideas, or neither, depending on the patient.

The American tradition emphasises the importance of assessing the strength with which clinically relevant beliefs are held. The European tradition emphasises the importance of evaluating various belief characteristics (e.g. preoccupation, action-driving nature, association with self-identity), as well as aetiology. Both these goals are worthwhile. However, they are distinct from applying the labels ‘delusion’ or ‘overvalued idea’. Given the conceptual confusion surrounding those terms, it may be better for AN researchers to focus exclusively on understanding body size beliefs and beliefs about the value of thinness, putting the task of labelling aside. Once these beliefs' characteristics, aetiology, and strength are properly understood and documented, labelling them as delusions or overvalued ideas likely delivers no further explanatory benefit.

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[1] While this chapter focuses on AN, many of the same beliefs are held by those with a diagnosis of Bulimia Nervosa or Other Specified Feeding and Eating Disorder (OSFED), thus the same arguments may hold for those with these related diagnoses.

[2] BMI is calculated by dividing a person's weight by the square of their height.

[3] Konstantakopoulos and colleagues (2012) provide three examples of the relevant beliefs, though it isn't clear whether and to what extent these examples were characteristic of their entire sample.