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ORIGINAL RESEARCH

Clinician and practice characteristics influencing delivery and outcomes of the early part of outpatient cognitive behavioural therapy for anorexia nervosa

Amy Brown[1]*, Victoria Mountford[1,2] and Glenn Waller[3]

[1]*Institute of Psychiatry, King's College London, London, UK*
[2]*South London and Maudsley Eating Disorder Service, South London and Maudsley NHS Foundation Trust, London, UK*
[3] *Clinical Psychology Unit, Department of Psychology, University of Sheffield, Sheffield, UK*

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Abstract. Cognitive-behavioural therapy (CBT) can be effective for anorexia nervosa. However, there is evidence that the delivery of treatments for the eating disorders is inconsistent. This study examined evidence that clinician characteristics and practice can influence the effective implementation of CBT. The participants were 100 qualified clinicians who routinely offered outpatient CBT to adults with anorexia nervosa. They completed a survey of their demographic characteristics, level of anxiety, clinical practice in CBT for anorexia nervosa, and beliefs about the relationship between weight gain and therapeutic alliance in the early part of such treatment. Greater reported levels of weight gain were associated with the use of manuals, early focus on weight gain as a target, structured eating, and a belief that weight gain precedes a good working alliance. Clinician anxiety and early focus on the therapeutic alliance rather than structured eating were associated with poorer outcomes. These conclusions need to be tested within clinical and research settings. However, they suggest that clinicians should be encouraged to use manual-based approaches when treating anorexia nervosa using CBT, as focusing on techniques might result in the best possible outcome in this early part of treatment.

Key words: Anorexia nervosa, cognitive behavioural therapy, therapeutic alliance, weight gain.

Introduction

Anorexia nervosa is a disorder that is characterized by a wide range of psychological and biological dysfunction. In addition, given its relatively long duration, the initial causal factors (e.g. social factors) are not always as important to understand as maintenance factors

*Author for correspondence: A. Brown, DClinPsy, Institute of Psychiatry, King's College London, 16 De Crespigny Park, London, SE5 8AF, UK (email: amy.brown@kcl.ac.uk).

(e.g. starvation effects) when planning and delivering treatment. Both pharmaceutical and psychological treatments are limited in their effectiveness (NICE, 2004; Bulik *et al.* 2007; Crow *et al.* 2009), particularly among adult cases. Recent evidence from uncontrolled trials suggests that outpatient cognitive behavioural therapies (CBT) yield promising outcomes in terms of treatment retention and clinical improvement, although such effects are reduced where initial eating and comorbid pathology are more severe (Byrne *et al.* 2011; Kyriacou Marcoulides & Waller, 2012; Lockwood *et al.* 2012; Fairburn *et al.* 2013). Therefore, it will be important to explore the efficacy of CBT for anorexia nervosa further in controlled trials, prior to undertaking continued work to demonstrate that these methods are effective in routine clinical practice.

However, a critical issue in translating such research findings into everyday practice will be the degree to which clinicians adhere to the treatment guidelines that emerge. As with other disorders (Becker *et al.* 2004; Stobie *et al.* 2007), it has been demonstrated that the delivery of treatments for the eating disorders is far from consistent, with little reliance on existing evidence and guidelines (Tobin *et al.* 2007; Wallace & von Ranson, 2011; Waller *et al.* 2012). Therefore, although the literature to date has focused more on the role of patient attributes in driving treatment outcomes with this population (Sly, 2009; Carter *et al.* 2012), it will be important to understand how the characteristics of clinicians influence the application of CBT for anorexia nervosa. Such characteristics are likely to include age, temporal factors, use of manuals and the clinicians' own emotional states (Waller *et al*. 2012). However, given the relatively contrasting approaches that different clinicians have to the application of core CBT methods in treating the eating disorders (Waller *et al*. 2012), it will also be important to understand the beliefs that clinicians hold about therapeutic priorities in treating the eating disorders.

While the primary outcome of treatment for anorexia nervosa must be weight gain (Bulik *et al.* 2007), there are different attitudes to how this should be achieved. One approach is to stress the importance of behavioural change from the outset of therapy, improving the structure and content of dietary intake with the aim of achieving weight gain from the earliest sessions (Kyriacou Marcoulides & Waller, 2012; Lockwood *et al.* 2012). However, an alternative clinical recommendation is to prioritize developing the therapeutic alliance (Garner *et al.* 1997). Brown *et al.* (2013) have examined the relationship between the therapeutic alliance and weight gain in CBT for adults with anorexia nervosa. In a longitudinal design, it was shown that there was a unidirectional association between these constructs. Behavioural change (as marked by increasing weight) in the early and later parts of treatment resulted in improvements in the patient's perception of the alliance, but there was no corresponding effect of the early alliance on subsequent weight gain. This finding is similar to patterns shown in the depression literature (Tang & DeRubeis, 1999), and supports the suggestion that dietary change should be prioritized in CBT for anorexia nervosa. However, the question remains – what do clinicians believe should be prioritized, and does it correspond with this clinical finding?

To summarize, it is important to understand the clinician-based factors that influence the implementation of CBT for adults with anorexia nervosa. This needs to be a particular focus in the early part of treatment, when expectations about therapy are established. The aim of this study was to explore the relative focus clinicians place on weight gain and therapeutic alliance during this early part of treatment (and how this compares to recent empirical data; Brown *et al.* 2013).

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An additional aim was to determine whether the delivery and outcome of CBT in the early part of treatment is influenced by clinicians' characteristics and beliefs. There will also be consideration of whether clinicians' beliefs about the relative importance of dietary change and the therapeutic alliance mean that those clinicians cluster into meaningful subgroups.

Method

Ethical considerations

The research received approval from the West London Mental Health Research and Development Consortium and from the Ethics Committee, Royal Holloway, University of London.

Design

This study involved a cross-sectional mixed correlational and comparative design, with data collected via online survey methodology (SurveyMonkey™, USA).

Participants

The original participants were 123 clinicians who reported routinely practising CBT for anorexia nervosa, recruited from databases in the UK and internationally (British Association of Behavioural and Cognitive Psychotherapy; Eating Disorders Research Society) and via snowball recruitment of colleagues by the clinicians who were approached (making it impossible to determine the response rate). Only 100 (81.3%) of these clinicians completed all parts of the survey, and the findings are based on those 100 clinicians. The respondents were recruited from within the UK and other countries. eighty per cent of the sample were female, and the median age group of the clinicians was 30–49 years. Fifty-three per cent were clinical psychologists, and the remainder were drawn from a range of other disciplines (e.g. nurses, psychiatrists, social workers, occupational therapists). The clinicians had been qualified for a mean of 12.4 years (S.D. = 10.4) and had been working in the field of eating disorders for a mean of 9.5 years (S.D. = 8.2). CBT was the primary therapeutic modality used by the majority of the sample (72%), but all were asked only about their CBT practice. They reported seeing a median of six anorexia nervosa patients each week.

Measures and procedure

The survey assessed clinicians' beliefs and clinical practice related to the importance of the therapeutic alliance and weight gain during outpatient CBT for anorexia nervosa. It began with demographic characteristics (e.g. gender, temporal characteristics) and clinicians' own levels of anxiety. It then examined reported clinical practice within the first six sessions of CBT for anorexia nervosa, and clinicians' beliefs about the relationship between weight gain and therapeutic alliance in CBT for anorexia nervosa.

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Brief Symptom Inventory – Anxiety scale (BSI; Derogatis, 1975)

This is a six-item self-report measure that reflects current levels of anxiety. It is drawn from the 53-item BSI. Higher scores indicate higher levels of anxiety. The BSI has been validated widely and has good psychometric properties with both clinical and non-clinical groups (Derogatis, 1975). In this study, the anxiety scale had acceptable internal consistency (Cronbach's $\alpha = 0.74$).

Clinical practice

The majority of these items asked respondents to report (on a 10-point scale, of 0–10% to 91–100%) the proportion of clients with whom they focused on various elements of CBT in the early stage of outpatient treatment (first six sessions). Those elements were: achieving weight gain (including two supplementary questions asking separately about patients with lower or higher initial body mass index (BMI <15; BMI ≥ 15); implementing structured eating; reduction of binge-eating; reduction in purging; reduction of excessive exercise; and improving body image. There was also two items asking for the proportion of patients who achieved any weight gain over the first 6 weeks, and the proportion achieving the NICE-recommended average of 0.5 kg weight gain per week (NICE, 2004). In addition, there was an item asking respondents how often they used manuals to assist in the delivery of CBT (a 5-point scale; 0 = never to 4 = always). Two final questions asked clinicians to rate the extent to which they focused on the therapeutic alliance in the early part of CBT, and to what extent they were prepared to slow down or delay other aspects of therapy (e.g. food diaries, regular weighing) in order to build or maintain the therapeutic alliance, using a 7-point scale (1 = 'not at all' to 7 = 'very much so').

Clinicians' beliefs

Eight items asked for respondents' opinions about the relationship between therapeutic alliance and weight gain in CBT for anorexia nervosa. Five were 7-point scales (1 = 'not at all important' to 7 = 'very important'), rating the perceived relevance to later weight gain of the following processes in the early part of treatment: early weight gain; early therapeutic alliance; early agreement between client and therapist on the goals of treatment; early agreement on the tasks of treatment; and quality of the interpersonal bond between therapist and client. The remaining three items asked the participant to rate (on a 7-point scale, where -3 = 'negative relationship', 0 = 'no relationship', and +3 = 'positive relationship') the relationship between the following pairs of processes: early weight gain with early therapeutic alliance; early therapeutic alliance with subsequent weight gain; and early weight gain with later weight gain.

Data analysis

Descriptive analyses were used to detail scores on the measures of reported outcomes and clinical practice. The remaining analyses were non-parametric, given the non-normal distribution of many variables. They were carried out using SPSS v. 20 (SPSS Inc., USA). Correlational analyses (Spearman's ρ) were used to determine any association of those variables with the clinicians' own characteristics. Such correlations were also used to determine the association of clinician characteristics with reported levels of patient weight

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change. As an exploratory investigation, a two-step cluster analysis was used (given the non-normal distribution of data) in order to determine whether three key reported characteristics (importance of weight gain in the early part of CBT; importance of the therapeutic alliance; willingness to slow down behavioural elements to focus on the alliance) yielded distinct sub-groups of clinicians. This cluster analysis used Schwarz's Bayesian Criterion and the log-likelihood distance measure, and the number of resulting clusters was not pre-determined. The resulting groups were compared on a range of potential validating variables using Kruskal–Wallis tests, with Mann–Whitney tests to determine pairwise differences. There was no correction for Type 1 errors, in order to reduce the risk of Type 2 errors.

Results

Reported outcomes and practice characteristics

Table 1 shows the clinicians' mean scores on the measures of outcome and practice characteristics, relative to the possible range of such scores (where a higher score indicates greater use of that element). In terms of clinical outcomes, the clinicians tended to report some early weight gain among their anorexia nervosa patients, but not to the extent recommended by NICE (2004). The foci of treatment appeared to be relatively appropriate, with stress on structured eating and the reduction of bulimic symptoms (where appropriate), and little focus on body image at this early stage in treatment. Therapeutic alliance was a strong focus for these CBT clinicians, but its overall prioritization level was lower. The belief that the alliance precedes weight gain was significantly stronger than the converse belief (paired $t = 3.40$, $p < 0.001$), despite evidence to the contrary from clinical outcomes (Brown *et al.* 2013).

Association of clinicians' characteristics with reported outcomes and practice

Table 1 also show the correlations (Spearman's ρ) of those outcome and practice characteristics with clinicians' own characteristics. Temporal variables (age, years qualified, years working in the specialist area) were linked to practice around the therapeutic alliance – with older, more experienced clinicians focusing more on the alliance, and older clinicians believing that such a focus drives weight gain (although they did not report greater levels of weight gain). In contrast, higher levels of reported weight gain (to NICE recommended levels) were more likely where the clinician used manuals more frequently. The use of manuals was also associated with reported emphasis on structured eating. Finally, greater levels of clinician anxiety were associated with lower levels of reported weight gain (to NICE standards), and with believing less in the possibility that the therapeutic alliance is associated with weight gain.

Association of practice characteristics with reported weight outcomes

Table 2 shows the associations (Spearman's ρ) between clinicians' practice characteristics and reported weight gain among anorexia nervosa patients. The practice variables that were positively associated with any early reported weight gain were an early focus on weight gain (regardless of patient BMI), the implementation of structured eating, an early focus on reducing exercise, and a belief that early weight gain predicts subsequent therapeutic alliance. The predictors of reaching NICE-recommended levels of weight gain were similar,

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Table 1. *Practice characteristics and their association with clinician characteristics (Spearman's ρ; n = 100)*

	Scores			Association with clinician characteristics				
	Possible range	Mean	(S.D.)	Age	Years qualified	Years working with eating disorders	Manual use	Anxiety
Outcome characteristics								
Achieve any weight gain in sessions 1–6	1–10[a]	6.94	(3.21)	0.08	−0.11	−0.09	0.10	−0.14
Achieve NICE guidance on weight gain	1–10[a]	4.10	(2.32)	−0.18	0.01	0.01	0.20*	−0.20*
Practice characteristics								
Early focus is on weight gain (BMI < 15)	1–10[a]	7.19	(3.52)	0.06	−0.09	−0.05	0.08	−0.08
Early focus is on weight gain (BMI >15)	1–10[a]	6.35	(3.17)	−0.04	−0.15	−0.19	0.12	−0.06
Structured eating is implemented[a]	1–10[a]	8.62	(2.31)	−0.03	−0.13	−0.11	0.36***	−0.17
Reducing binge-eating is a focus	1–10[a]	7.30	(3.34)	0.19	0.07	0.08	0.17	0.05
Reducing purging is a focus	1–10[a]	8.21	(2.75)	0.14	0.14	0.16	0.15	−0.03
Reducing exercise is a focus	1–10[a]	6.86	(3.04)	0.12	−0.05	−0.10	−0.02	−0.03
Body image is a focus	1–10[a]	2.72	(2.66)	0.18	0.03	0.07	−0.04	0.04
Therapeutic alliance is a focus	1–7	6.77	(0.65)	0.35***	0.28**	0.25*	0.07	−0.13
Therapeutic alliance prioritized	1–7	4.50	(2.03)	0.10	0.06	0.01	−0.18	0.01
Early alliance predicts later weight gain	−3 to +3	2.03	(1.09)	0.22*	0.16	0.11	−0.11	−0.27**
Early weight gain predicts alliance	−3 to +3	1.34	(1.19)	0.14	0.06	0.03	0.05	−0.07

BMI, Body mass index.

[a] 1 = 0–10% of cases, to 10 = 90–100% of cases.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 2. *Practice characteristics and their association with weight gain outcomes (Spearman's ρ; n = 100)*

	Weight gain outcomes	
Practice characteristics	Achieve any weight gain in sessions 1–6	Achieve NICE guidance on weight gain
Early focus is on weight gain (BMI < 15)	0.66***	0.25*
Early focus is on weight gain (BMI >15)	0.74***	0.26**
Structured eating is implemented	0.39***	0.36***
Reducing binge-eating is a focus	−0.08	0.11
Reducing purging is a focus	0.11	0.27**
Reducing exercise is a focus	0.39***	0.27**
Body image is a focus	0.18	0.16
Therapeutic alliance is a focus	−0.09	0.18
Therapeutic alliance prioritized	0.12	0.06
Early alliance predicts later weight gain	−0.09	0.08
Early weight gain predicts alliance	0.42***	0.19

BMI, Body mass index.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

but included focusing on reducing purging and did not include any belief in the link between early weight gain and the subsequent alliance.

Clinician typology

Two-step cluster analysis was used to determine if there are meaningful groups of clinicians, differentiated by their attitudes on three items. Those three were: the importance of weight gain in the early part of CBT for anorexia nervosa; the importance of the therapeutic alliance in that approach; and the willingness (or otherwise) to slow down behavioural elements to ensure a good alliance in that early stage of treatment.

The analysis yielded a three-cluster solution, with a good level of cluster cohesion and separation (silhouette score = 0.6). The mean scores on each of the three items for the three clusters are given in Table 3 (although they are not compared statistically, as they are clustering variables; Clatworthy *et al.* 2005). The first cluster consisted of 42 individuals, who had relatively high scores on the 'focus on structured eating' and the 'focus on therapeutic alliance' items, but low scores on the 'prioritizing the alliance over eating' item. Therefore, they were labelled as the 'Focus on Eating' group. The second cluster consisted of 16 clinicians who reported low scores on the 'structured eating' item, but high scores on both of the other two items. Therefore, they were labelled as the 'Focus on Alliance' group. The final group consisted of the remaining 42 clinicians. This group scored high on all three items, indicating that they saw both eating and the alliance as important, but would prioritize the latter if necessary. Therefore, they were labelled the 'Conditional Priority to Eating' group. The other two groups differ in that the Conditional Priority to Eating group has a strong focus on structured eating, as long as the alliance is addressed when needed.

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Table 3. *Differences in clinician, outcome and practice variables across clusters of clinicians*

	Clusters [mean (S.D.)]			Statistical tests	
Clustering variables	Focus on eating	Focus on alliance	Conditional priority to eating	Kruskal–Wallis test	Mann–Whitney MC tests
Early focus on therapeutic alliance	6.48 (0.92)	6.94 (0.25)	7.00 (0.00)	–	–
Early focus on structured eating	9.40 (1.17)	4.06 (1.91)	9.57 (0.74)	–	–
Prioritizing alliance over eating	2.50 (1.24)	6.13 (1.15)	5.88 (0.92)	–	–
Validation variables (clinician)					
Years qualified	10.6 (9.64)	16.0 (11.4)	14.7 (11.5)	4.02 n.s.	–
Years of eating disorder experience	8.72 (8.22)	11.3 (7.74)	10.9 (9.20)	2.08 n.s.	–
Anxiety	1.44 (0.40)	1.57 (0.44)	1.38 (0.46)	3.81 n.s.	–
Validation variables (outcome)					
Patients achieve early weight gain	4.17 (2.38)	2.33 (2.09)	5.19 (2.59)	14.3***	1 = 3>2
Patients achieve NICE target	4.17 (2.38)	2.50 (2.22)	4.64 (2.15)	11.4**	1 = 3>2
Validation variables (practice)					
Early focus on weight gain (BMI< 15)	7.00 (3.56)	5.50 (3.88)	8.11 (3.08)	6.48*	1 = 3>2
Early focus on weight gain (BMI>15)	6.40 (3.24)	4.69 (3.16)	6.95 (2.93)	6.23 n.s.	–
Reducing binge-eating is a focus	7.50 (3.45)	6.69 (2.89)	7.33 (3.43)	2.11 n.s.	–
Reducing purging is a focus	8.48 (2.66)	6.50 (2.76)	8.61 (2.59)	9.49**	1 = 3>2
Reducing exercise is a focus	6.58 (3.34)	6.13 (3.12)	7.45 (2.65)	2.39 n.s.	–
Body image is a focus	2.14 (2.49)	2.88 (3.03)	3.24 (2.62)	7.54*	3 > 1
Early alliance precedes weight gain	1.70 (1.07)	2.75 (0.48)	2.07 (1.17)	13.7***	2 > 3 = 1
Early weight gain precedes alliance	1.08 (1.31)	1.31 (1.08)	1.61 (1.07)	3.23 n.s.	–
Manual use	3.81 (1.15)	3.00 (1.32)	3.64 (0.98)	5.42 n.s.	–

BMI, Body mass index; n.s., not significant.
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

In order to test the clinical validity of the three clusters, Table 3 also gives the groups' mean scores on a range of potential validating variables – clinician characteristics, reported outcomes in the first part of therapy, and clinical practice variables. Kruskal–Wallis and *post- hoc* Mann–Whitney tests showed no differences between clusters in terms of clinician characteristics, but there were difference on other ratings. The Focus on Alliance group were significantly less likely than the other two groups to address weight gain in extremely underweight patients or to address purging behaviour. However, their particular clinical focus on the alliance could be explained by their stronger belief in the importance of the alliance in the early part of therapy to weight gain. In terms of outcomes, it is noteworthy that the Focus on Alliance group reported that their anorexia nervosa patients gained significantly less weight than the other groups. The only significant difference between the other two groups was that clinicians in the Conditional Priority to Eating cluster were more likely to focus on body image than the Focus on Eating group. The three groups did not differ significantly in their use of treatment manuals, although the Focus on Alliance group tended to use them less.

To summarize, three clusters of clinicians emerged. All rated the therapeutic alliance as highly important, but they had different emphases on eating – one group who focused on it, one group who attended to it less, and one who addressed eating it as long as the working

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relationship was functional. This differentiation was validated particularly by the finding that the smaller Focus on Alliance group reported substantially less weight gain in the early part of CBT for their anorexia nervosa patients.

Discussion

As treatments are developed, it is important to understand how they are likely to be delivered in routine clinical practice. Many clinicians fail to implement core therapy techniques within CBT for a number of disorders (Becker *et al.* 2004; Stobie *et al.* 2007), and this failure is related to clinician characteristics and patterns of practice (Waller, 2009; Waller *et al.* 2012). Therefore, current developments in CBT for anorexia nervosa (Lockwood *et al.* 2012; Fairburn *et al.* 2013) need to be paralleled with an understanding of how clinicians are likely to prioritize the relevant methods, particularly given the commonly stated focus on the importance of the therapeutic alliance. This survey-based study aimed to determine whether clinician characteristics, beliefs and practice influence the reported implementation and effectiveness of outpatient CBT for adults with anorexia nervosa.

In line with other findings (Waller *et al.* 2012), clinician characteristics were associated with reported clinical practice and outcomes. Clinicians who used manuals reported focusing on structured eating and being more likely to have patients who achieve NICE guidelines on weight gain (0.5 kg/week). This is in keeping with the finding that clinicians with more negative attitudes to manual use have poorer outcomes when delivering CBT for chronic fatigue (Wiborg *et al.* 2011). Older clinicians had a stronger belief in the importance of the early alliance to weight gain in anorexia nervosa and were more likely to focus on the alliance, though this was not related to time spent working in the field. Reported weight gain was also limited among the patients of more anxious clinicians – an emotional feature that is associated with a lower use of evidence-based techniques in treating the eating disorders (Waller *et al.* 2012). However, several clinical practice variables were linked to better reported levels of weight gain in CBT for anorexia nervosa – particularly early foci on weight gain, structured eating and reducing compensation, and the belief that weight gain precedes the development of the therapeutic alliance.

Thus, clinicians using outpatient CBT for anorexia nervosa who address structured eating report to be more effective in getting their patients to gain weight early in treatment, but the same is not true of the smaller proportion of clinicians who focus predominantly on the therapeutic alliance during CBT. However, these are not necessarily incompatible strategies within CBT, and can even be seen as mutually supportive (Wilson *et al.* 1997). Therefore, it might be the way that the clinician mixes the weight gain and alliance foci that plays the most important role. While clinicians overall rated the therapeutic alliance as an important focus in CBT for anorexia nervosa, the cluster analysis showed that those clinicians who stress early changes in eating reported more success in helping anorexia nervosa patients to gain weight. This outcome is compatible with the view that empathy, genuineness and warmth are 'necessary but not sufficient to produce an optimum therapeutic effect' (Beck *et al.* 1979, p. 45).

Definitive guidelines on CBT for anorexia nervosa are still to be developed. However, these findings appear to indicate that anxiety, non-use of manuals and a focus on the therapeutic alliance (rather than changing eating patterns) all impede the outcome of such treatment, at least in terms of the key outcome variable in the disorder – weight gain (Bulik *et al.*

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2007). Therefore, it can be suggested that clinicians using CBT with this population should be encouraged to focus on changes in eating patterns from the beginning of therapy, while maintaining the empathic base of the therapeutic alliance ('firm empathy'; Wilson *et al.* 1997). It can be hypothesized that supervision and encouraging clinicians to use manuals to guide their treatment (Fairburn, 2008; Waller *et al.* 2007) will provide the structure that focuses the clinician on eating, meaning that there is enough predictability to reduce clinician anxiety. However, given that the three clusters did not differ significantly in their reported use of manuals, it is possible that the clinicians' attitudes to manuals (and structured treatment) matters over and above their use *per se* (Wiborg *et al.* 2011). As clinicians seek to replicate the results of intensively supervised research trials for anorexia nervosa (Fairburn *et al.* 2013) in 'real life' settings (Byrne *et al.* 2011), adhering to all aspects of the manual will be crucial. Importantly, the current research provides clear information about what factors will be valuable to address in supervision – particularly encouraging inexperienced clinicians to maintain the focus on structured eating alongside the therapeutic alliance.

However, further research is needed to determine whether this is an appropriate set of conclusions. In particular, because this is a self-report study by clinicians, it is possible that there are issues of reporting accuracy. For example, do the anorexia nervosa patients of relatively anxious clinicians actually achieve less weight gain in CBT, or is that a matter of recall bias? Similarly, are the reported benefits of more structured treatment matched by weight gain in the clinic? In addition, there is the possibility of a social desirability bias – might clinicians have modified their answers to provide a more favourable impression, such as overestimating the focus on structured eating? Given these potential biases, it will be important to use these findings to design longitudinal studies, which determine the nature of the associations suggested here in clinic and research settings. Those studies might use other measures of the therapeutic alliance, where there is no risk of ceiling effects due to relatively high ratings. Such studies will need to consider the weighting given to the risk of Type 1 and Type 2 errors. Given inter-clinician differences in other studies (Wallace & von Ranson, 2011; Waller *et al.* 2012), it will also be important to consider the impact of using other apparently core CBT techniques and tools with this population (e.g. exposure, recording, weighing the patient), in order to determine the degree to which they are necessary for treatment to be effective. Finally, having shown that these relationships apply in the use of outpatient CBT for anorexia nervosa, it will be important to determine whether different patterns apply in other therapeutic models – particularly those where the treatment has the working alliance as a more central mechanism of change.

Declaration of Interest

None.

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Learning objectives

(1) It is important to understand how treatments are delivered in routine clinical practice and what influences that implementation, including clinician characteristics.
(2) Greater reported levels of weight gain were associated with the use of manuals, early focus on weight gain as a target, structured eating, and a belief that weight gain precedes a good working alliance.
(3) Clinician anxiety and early focus on the therapeutic alliance rather than structured eating were associated with poorer reported outcomes.