What are clinicians' attitudes towards evidence-based treatments, and how can those attitudes be improved?

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Declaration

This thesis has been submitted for the award of Doctorate in Clinical Psychology at The University of Sheffield. It has not been submitted for any other qualification or to any other academic institution.

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Abstract

Literature review

A systematic review was conducted to summarise the attitudes of clinicians towards evidence-based therapy, and the factors that might affect those attitudes. Clinicians were found to have both positive and negative attitudes to evidence-based therapies. A number of factors were found be related to more negative attitudes. Clinicians perceived there to be a gap between research and clinical practice. However, they had a poor understanding of key terms, such as ‘evidence-based therapies’, ‘evidence-based practice’, and ‘manuals’. Limitations of the review are provided, along with recommendations for future research and clinical practice.

Research report

Clinicians use exposure therapy only infrequently when treating eating disorders despite the evidence that supports its use. This lack of use is partly due to their negative attitudes to this therapeutic method. This study examined whether specific teaching about exposure therapy improved clinicians’ attitudes towards and utilisation of exposure therapy, compared to a control teaching session. A short, specific teaching session was found to improve eating disorder clinicians’ attitudes towards exposure-based therapy, both short- and long-term. However, this attitudinal change did not result in a corresponding increase in use of exposure therapy in the clinicians’ everyday practice. Further research is needed to investigate what type of intervention improves the frequency of exposure therapy utilisation in eating disorders.

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Section One: Literature review

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What are they, and what factors affect them?

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Abstract

Objectives. Clinicians are often poor at utilising evidence-based psychological therapies. A potential reason for this lack of use could be the attitudes that clinicians hold, but there is a lack of research in this area. This systematic review summarises the attitudes of clinicians towards evidence-based therapy, and the factors which appear to affect those attitudes. Related issues are considered, including whether clinicians feel there is a 'gap' between research and clinical practice, and whether clinicians have an understanding of the difference between evidence-based practice and evidence-based treatment.

Method. Databases were systemically searched for journal articles examining clinicians' attitudes towards evidence-based therapies.

Results. Clinicians were found to have both positive and negative attitudes towards evidence-based therapies. Positive attitudes were related to structure, clinical evaluation, and enhanced outcomes. Negative attitudes were related to an overemphasis on therapeutic technique, inflexibility, and dehumanisation. A number of factors were found be related to more negative attitudes, such as increased years of experience. Clinicians perceived there to be a 'gap' between research and clinical practice, and were poor at knowing the definition of evidence-based therapies, evidence-based practice, and manuals.

Conclusions. Clinicians hold a variety of attitudes towards evidence-based therapies, and these attitudes are affected by a number of factors. It is of importance for us to understand these attitudes further, and to determine how to improve clinician attitudes, to encourage utilisation of evidence-based therapies.

Introduction

Clinicians and therapists tend to embark on their careers because they want to help people (Duncan, 2010). It would be useful to know how accurate clinicians are at assessing whether they are actually helping people and doing a good job. A key issue is whether clinicians use methods that have been demonstrated to be effective – evidence-based treatments. However, the use of such methods is highly limited in routine practice. There is some evidence that this limited use is due to clinicians' negative attitudes to evidence-based practice (e.g., Deacon et al., 2013).

If clinicians are not very good at assessing their own effectiveness, then it would be important to employ techniques that have been shown to improve client outcomes - evidence-based treatments. However, to enhance the use of such methods in routine practice requires that we understand clinicians' attitudes to such therapies.

Accuracy of clinicians' perceptions of their own effectiveness

The more attention we pay to outcomes (for example, regularly using outcome measures), the better the clinical outcome (Lambert, 2007). However, relying on clinicians perceptions of their clients' outcomes cannot be recommended. Hannan et al. (2005) found therapists greatly overestimated the number of positive outcomes they had with clients. In a further study by Walfish, McAlister, O'Donnell, and Lambert (2012), no mental health professionals viewed their skill level to be below average, and 25% actually viewed their skill to be at the 90th percentile when compared to their peers. Brosan, Reynolds and Moore (2008) also found that CBT therapists consistently rated themselves as more competent than an independent expert rater observing them. This 'self-

assessment bias' indicates that clinician perceptions about the effectiveness of the therapy they provide is unlikely to be valid in very many cases. In short, clinicians' perceptions of their outcomes are not accurate.

What does improve clinical outcome?

If clinicians' perceptions of their effectiveness cannot be relied on, it is important to turn to the research to determine what factors do impact on clinical outcome. A major factor impacting on clinical outcome is whether the clinician uses evidence-based treatment. Evidence-based treatment refers to the interventions (e.g., cognitive therapy for depression, exposure therapy for anxiety) that have produced therapeutic change in controlled trials (Kazdin, 2008). Once a treatment has been shown to be effective in research trials, the next step is to determine how well the treatment works in typical clinical practice (Rounsaville, Carroll, & Onken, 2001). A strong evidence base has been derived for protocol-based, manualised therapies in adult services (e.g. Cukrowicz et al., 2011) and children's services (e.g. Hogue et al., 2008). Evidence-based treatments have also been shown to be effective in improving outcomes in complex cases in routine clinical settings (e.g., Long et al., 2010). It is clear from the literature that using evidence-based treatment improves clinical outcome for clients. However, there is potential for confusing the term 'evidence-based treatment' with a broader concept - evidence-based practice.

Evidence-based treatments vs. evidence-based practice

It is important to clarify the relation between evidence-based treatments and evidence-based practice (American Psychological Association, 2006). Evidence-based treatments are specific psychological treatments that have been shown to be effective in controlled clinical trials (American Psychological

Association, 2006). Evidence-based practice is a somewhat broader concept. It is an interdisciplinary approach to clinical practice, which has been coined as a "revolution" in health care, focusing on assessment and accountability (Kiesler, 2000). Evidence-based practice is a process of clinical decision making, which integrates the following three principles (Spring, 2007);

1.) the best available research evidence about the efficacy of different treatments, often from systematic reviews that pull together the findings from a number of clinical trials

2.) clinical expertise (including experience, education, and clinical skills)

3.) patient preferences and values.

Evidence-based practice is therefore a more 'all-encompassing' concept than evidence-based treatment. It is important to highlight the potential for confusion regarding the definition of evidence-based practice and evidence-based treatment. Eddy (2005) highlighted that the phrase 'evidence-based practice' itself appears to have different meanings in different disciplines.

It seems particularly pertinent to highlight the potential for confusion between the two concepts as there is not much evidence to suggest that evidence-based practice improves clinical outcomes for clients. For example, studies have shown that using clinician judgement rather than protocol-based methods actually results in poorer outcomes (e.g. Meehl, 1954; Grove, Zald, Lebow, Snitz, & Nelson, 2000). It appears there is rigorous evidence in support of utilising evidence-based treatments to improve clinical outcome, but less evidence supporting the use of evidence-based practice. But to what extent are

clinicians actually using evidence-based treatment with clients, rather than focusing on their own judgement?

Utilisation of evidence-based treatment

Despite the evidence that using evidence-based treatments is beneficial to clients, clinicians have been found to be inconsistent in their use of recommended treatment approaches in a number of different therapies and with different disorders (e.g., DiGiorgio, Glass, & Arnkoff, 2010; Shafran et al., 20009; Stobie, Taylor, Quigley, Ewing, & Salkovskis, 2007; Thompson-Brenner & Westen, 2005; van Minnen, Hendricks, & Olff, 2010; von Ranson, Wallace, & Stevenson, 2013). Furthermore, there appears to be use of non-evidence based methods within clinical practice. For example, Dray and Wade (2012) found use of motivational interviewing techniques within eating disorders therapy despite lack of evidence supporting such techniques.

The literature suggests that, across the board, evidence-based treatments are poorly utilised. There is a need for us to understand why, when there is such rigorous research supporting the use of such treatments, clinicians choose to deviate away from evidence-based treatments.

Reasons for clinician deviation from evidence-based treatment

There are a number of factors involved in clinicians' departing from the evidence base. Some factors have been attributed to the patient, for example, failure to complete homework, or chaotic attendance (Linehan, 1993). The potential for blaming clients for clinicians failure to stick to a treatment plan is reflected in clinical language such as 'drop out', 'difficult to engage' and 'ambivalent towards treatment' (Waller, 2009)

Factors associated with the clinician themselves have also been identified as influencing the use of evidence-based approaches;

- Philosophical standpoint: McHugh (1994) describes clinicians as basing their practice on the 'incompatible personal philosophies' of either 'romanticism' (using personal judgement and intuition to decide how to treat a client) or 'empiricism' (using the most robust literature to ensure treatment adheres to the evidence). Clinicians from a more 'romantic' perspective may be less likely to use evidence-based treatment.
- Favouring intuition and individual knowledge over research: Baker, McFall and Shoham, (2009) found a clinician tendency to give more weight to their own personal experience rather than the science available when weighing up the treatment options.
- Belief that quality of the therapeutic alliance is more important than the type of treatment: Many clinicians place more emphasis on the alliance within the therapeutic relationship as being the mechanism for change. A recent review of the empirical evidence found only weak to moderate associations between the therapeutic relationship and outcomes (Martin, Garske & Davis, 2000).
- Clinician anxiety: Clinicians routinely fail to use evidence-based treatment in an attempt to reduce client distress (by allowing avoidance of certain behavioural activation techniques), which in turn reduces the clinicians' own anxiety about performing the therapy they are meant to be engaged in (Waller, 2009).
- Gap between research and clinical practice: There seems to be a 'gap' between the research, which supports evidence-based treatments, and actual implementation of the treatment in clinical practice (Kazdin,

2008). Selecting participants for research can differ significantly from the processes which result in clients attending mental health services (e.g., Westen & Morrison, 2001), affecting clinicians' attitudes towards the generalisability of the evidence.

However, while human behaviour is largely driven by our attitudes, little is known about clinicians' attitudes toward evidence-based therapies, and how those attitudes might affect therapy delivery.

Attitudes towards evidence-based therapies

It is crucial to consider the evidence that our attitudes play a role in our delivery of treatment, as attitudes predict future behaviour. A meta-analysis by Glasman and Albarracín (2006) found a strong correlation between attitudes and behaviour, and suggest that people form attitudes more predictive of behaviour when they are motivated to think about the object they are considering, have direct experience with the attitude object, and report their attitudes frequently. It can therefore be assumed that clinicians who have positive attitudes towards evidence-based therapies are more likely to adhere to them than those who hold more negative attitudes. For example, our negative beliefs about exposure-based methods makes us more cautious in implementing hierarchies when working with obsessive compulsive disorder and panic disorder (Deacon, Farrell, et al., 2013; Deacon, Lickel et al., 2013).

The role of clinicians' attitudes towards evidence-based therapy is therefore potentially important in considering why evidence-based therapy is not employed across the board.

Aims of Present Review

The current paper systematically reviewed the available literature in order to:

1) Summarise the attitudes of clinicians towards evidence based therapy,
2) Summarise what factors appear to affect clinician's attitudes
3) Explore whether clinicians feel there is a 'gap' between research and clinical practice, and
4) Ascertain whether clinicians have a clear understanding of the difference between evidence-based practice and evidence-based treatment.

Method:

Search strategy:

Searches were conducted using the PsycINFO (1967 to 13th November 2015) and PubMed (1966 to 13th November 2015) databases. The following search terms were used: (i) clinician, therapist; (ii) attitudes; (iii) evidence based, empirically supported; (iv) psychotherapy, psychological, cognitive. Combinations of these sets of search terms were searched using the Boolean operator “AND” in order to ensure that the greatest number of relevant articles were included. Reference lists from the selected papers were also searched by hand.

Screening and selection:

Figure 1 illustrates the process of retrieving the articles, using a PRISMA diagram (Moher, Liberati, Tetzlaff, & Altman, 2009). After removing duplicates and screened titles and abstracts that were not relevant, 89 records were rated against the inclusion criteria. Hand searching of the reference lists of included articles generated two additional papers that met the inclusion criteria.

Inclusion/Exclusion Criteria

Studies were included if they were published in English, were in a peer-reviewed journal, and had an explicit focus on attitudes towards evidence based treatment or practice. Records were excluded based on the following criteria: (i) attitudes only a peripheral topic (e.g., studies that focused on knowledge of evidence based treatment), (ii) focus on attitudes towards a specific evidence based treatment, rather than attitudes more generally towards the evidence based treatment, (iii) focus on development of a scale to measure clinician

attitudes, (iv) focus on disseminating evidence based treatment, (v) focus on how to change the attitudes, rather than the content of attitudes, (vi) focus on attitude to training in evidence based treatments, (vii) focus on clinician attitudes toward organisational change, (viii) focus on clinician competency in evidence based treatment, and (viii) reviews and commentaries. Only articles examining general attitudes towards evidence based treatment or practice were considered for focus.

Table 1 shows an overview of the studies selected.

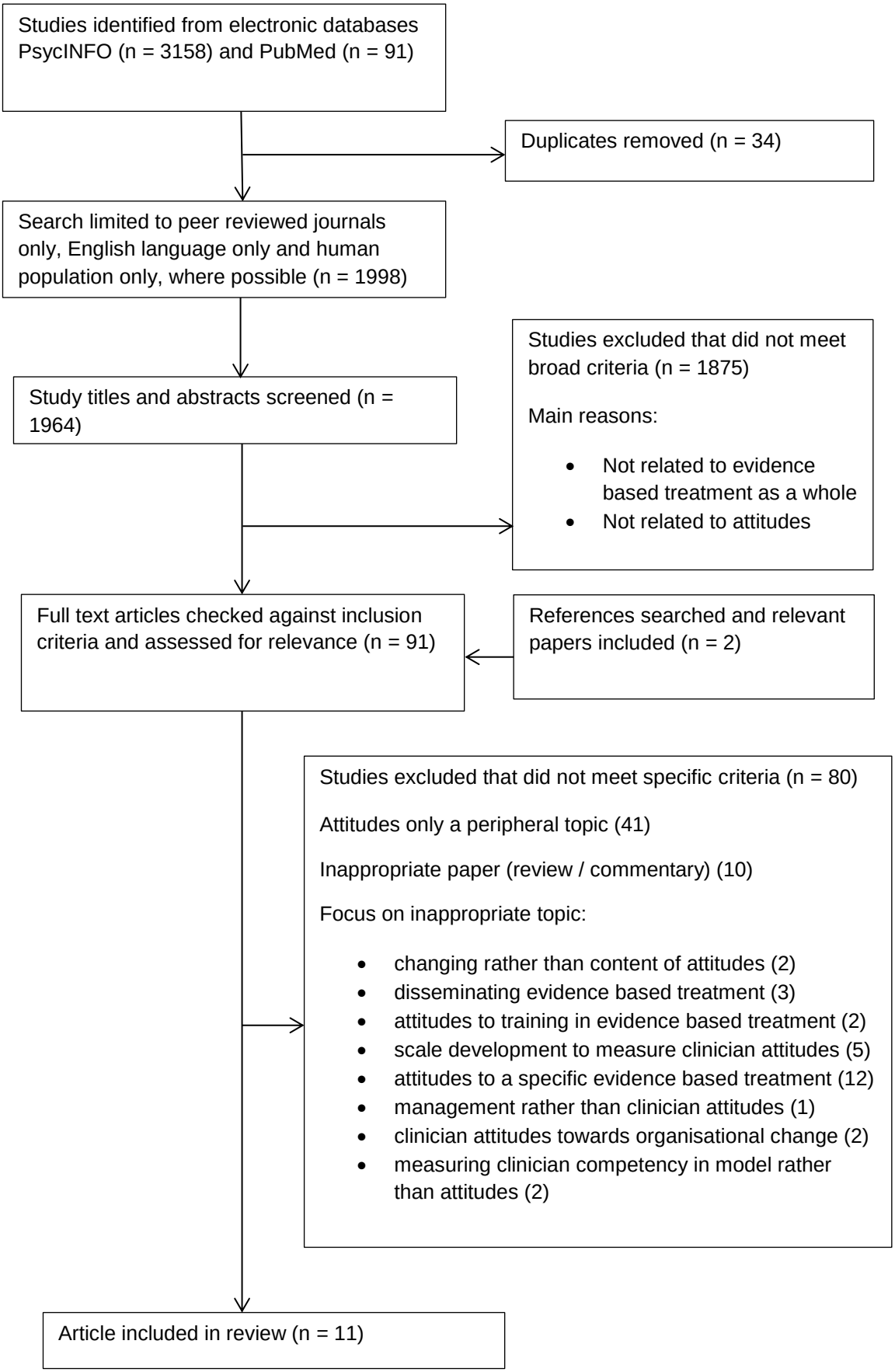

Figure 1: PRISMA flow diagram of study selection

Table 1:

Studies that address mental health clinicians' attitudes towards evidence based therapies.

Authors and dates	Title of study	Aims of study	Design and Sample	Measures
Addis and Krasnow. 2000	A national survey of practicing psychologists' attitudes towards psychotherapy treatment manuals.	To gather information from practitioners regarding their attitudes and beliefs about the role of psychotherapy treatment manuals in clinical practice.	Survey design. Sample comprised of 2970 licensed psychologists randomly selected from the American Psychological Association (APA) membership database.	Survey consisted of 52 researcher-developed self-report items.
Najavits, Weiss, Shaw and Dierberger. 2000	Psychotherapists' views of treatment manuals.	To explore the views of psychotherapists on their use and views of manuals, and their reaction to adherence scales.	Survey design. Sample comprised of 47 cognitive behavioural therapists.	Survey consisted of 56 researcher-developed self-report items.
Baumann, Kolko, Collins, and Herschell. 2006	Understanding practitioners' characteristics and perspectives prior to the dissemination of an evidence-based intervention.	To examine common intervention techniques, attitudes towards manualised treatment, and understand the organisational climate of community agencies.	Focus group and self-report questionnaires design. Sample comprised of 77 practitioners from 9 agencies providing services to children who had experienced abuse.	Focus group used researcher–developed questions drawn from the relevant literature. Questionnaire included researcher-developed items based on the work of Weersing et al. (2002) and Graczyk et al. (2005), and the Psychological Climate Questionnaire (PCQ; Glisson & Hemmelgarn, 1998).

Table 1 (continued):

Studies that address mental health clinicians' attitudes towards evidence based therapies.

Authors and dates	Title of study	Aims of study	Design and Sample	Measures
Nelson, Steele, and Mize. 2006	Practitioner attitudes towards evidence-based practice: Themes and Challenges.	To capture the complexity of practitioner attitudes towards evidence-based practice.	Focus group design. Sample comprised of 19 clinicians from 2 community mental health centres.	Focus group used researcher-developed questions drawn from the relevant literature.
Luebbe, Radcliffe, Callands, Green, and Thorn. 2007	Evidence-based practice in psychology: perceptions of graduate students in scientist-practitioner programs.	To examine the level of awareness of and intention to use evidence-based practice of clinical psychology graduate students.	Survey design. Sample comprised of 1195 clinical psychology graduate students currently enrolled in training programs in the United States.	Questionnaire consisted of research-developed items, including open-ended questions for narrative analysis.
Barry, Fulgieri, Lavery, Chawarski, Najavits, Schottenfeld, and Pantalon. 2008	Research- and community-based clinicians' attitudes on treatment manuals	To investigate the attitudes of research and community based substance abuse clinicians on treatment manuals.	Survey design. Sample comprised of 40 substance abuse clinicians (18 research, 22 community).	Researcher-developed modified version of the Treatment Manual Survey (Najavits et al., 2000).

Table 1 (continued):

Studies that address mental health clinicians' attitudes towards evidence based therapies.

Authors and dates	Title of study	Aims of study	Design and Sample	Measures
Gaudiano, Brown, and Miller. 2011	Let your intuition be your guide? Individual differences in the evidence-based practice attitudes of psychotherapists	To examine the relationship between intuition and therapists' attitudes towards evidence-based practices.	Survey design. Sample comprised of 288 practitioners of psychotherapy.	Evidence-based practice attitude scale (Aarons, 2004). Rational-Experiential Inventory (REI; Pacini & Epstein, 1999). Complementary and Alternative Medicine Health Belief Questionnaire (CHBQ; Lie & Boker, 2004). Magical Beliefs about Food and Health Scale (MFH; Lindeman, Keskivaara & Roschier, 2000).
Nakamura, Higa-McMillan, Okamura, and Shimabukuro. 2011	Knowledge of and attitudes towards evidence-based practices in community child mental health practitioners	To investigate the relationships between practitioner background variables and evidence-based practice knowledge and attitudes, and the relationship between knowledge and attitudes .	Survey design. Sample comprised of 240 public sector therapists attending a workshop about evidence-based practice.	Knowledge of Evidence Based Services Questionnaire (KEBSQ; Stumpf et al, 2009).Evidence-based practice attitude scale (Aarons, 2004). Modified Practice Attitude Scale (MPAS; Borntrager et al, 20009). Researcher-developed Therapist Background Questionnaire (TBQ).
Staudt and Williams-Hayes. 2011	A state survey of child advocacy center therapists' attitudes toward treatment manuals and evidence-based practice	To describe Child Advocacy Centre therapist practices in relation to child therapy and to examine therapist attitudes towards evidence-based treatments and the use of treatment manuals.	Survey design. Sample comprised of 21 therapists employed by 15 Child Advocacy Centres.	Researcher-developed questions partially based on previous survey by Addis and Krasnow (2000). Evidence-Based Practice Attitude Scale (Aarons, 2004).

Table 1 (continued):

Studies that address mental health clinicians' attitudes towards evidence based therapies.

Authors and dates	Title of study	Aims of study	Design and Sample	Measures
DiMeo, Moore, and Lichtenstein. 2012	Relationship of evidence-based practice and treatments: a survey of community mental health providers	To examine community mental health service clinicians' knowledge of evidence-based practice and attitudes towards evidence based treatment.	Survey design. Sample consisted of 141 mental health service clinicians.	Researcher-developed questions, which included the Evidence-Based Practice Attitude Scale (Aarons, 2004).
Stewart, Stirman, and Chambless. 2012	A qualitative investigation of practicing psychologists' attitudes towards research-informed practice: Implications for dissemination strategies.	To explore clinicians' perspectives on psychotherapy research, to learn more about how clinicians make treatment decisions, and to ascertain their views on empirically supported treatment research.	Qualitative study using semi structured interviews. Sample comprised of twenty five practicing psychologists.	Researcher-developed outline for interview.

Quality Appraisal and Final Inclusion

Use of an appraisal tool helps researchers to question the literature in a more structured and in-depth way (Florence et al., 2005). The eleven studies selected were therefore screened using a quality control checklist (see Appendix B for quality appraisal scores). The QualSyst checklist (Kmet, Lee, & Cook, 2004) was used to assess the methodological quality of the studies (see Appendix A for the QualSyst checklists). For the quantitative studies, 14 items were scored depending on the degree to which specific criteria were met ("yes" = 2, "partial" = 1, "no" = 0). Items not applicable to a particular study design were marked "n/a" and were excluded from the calculation of the quality rating score. A quality rating score was produced for each paper by summing the total score obtained across relevant items and dividing by the total possible score (i.e., 28 – (number of "n/a" x 2)). Scores for the qualitative study were based on the scoring of ten items. The quality rating score for this paper was calculated by summing the total score obtained across the ten items and dividing by 20 (total possible score). For the paper which employed a 'mixed methods' approach combining both qualitative and quantitative analyses, the two checklists were combined to ensure all sections were appraised, which gave a total possible score of 42. A table showing the breakdown of the marking of each of the papers is provided in Appendix C.

Two of the papers were selected at random and rated by an independent other, also in their third year of clinical psychology training and therefore with experience in appraising the quality of papers. There were no points of disagreement, therefore it was not felt necessary to rate any others. The QualSyst tool advises removing any papers obtaining a quality rating score that

is < .75 of the total possible score. Due to the small number of articles included in this review, it was deemed inappropriate to exclude papers due to poor quality. However, the quality of the articles was considered in the analysis, and care was taken to ensure that higher quality papers bore more weight on the conclusions.

Critique of Papers – Methodological and Reporting Quality

The majority of the papers reviewed were of moderate to good quality, with some of higher quality. Studies which scored highly on the QualSyst checklist (Kmet et al., 2004) tended to have good reporting quality of an appropriate design and detailed results analysis. Authors of the qualitative studies were particularly poor at assessing the likely impact of their own personal characteristics and the methods used on the data obtained. A limitation of the QualSyst tool is that it does not examine the psychometric properties of measures used. As a result, the overall appraisal of the quality of the papers does not take into account the quality of the different measures that were utilised across the studies.

Results

The key findings of the studies included in the review are summarised in Table 2. The table displays positive and negative attitudes for each paper, and other qualitative comments by the authors regarding research and definition confusion. An overview of these summaries will then be developed.

Table 2:

Overview of findings from reviewed studies (N = 11)

Authors and Date	Positive attitudes and clinician factors relating to them	Negative attitudes and clinician factors relating to them	Qualitative comments by the authors
Addis and Krasnow (2000)	• Manuals emphasise individual case conceptualisation • Treatment manuals can help keep therapists on track during therapy • Using a treatment manual helps a therapist to evaluate and improve his or her clinical skills • Manuals guide clinicians in using empirically supported interventions	• Manuals are a 'cookbook' of therapeutic techniques • Treatment manuals overemphasise therapeutic technique • Treatment manuals ignore the unique contributions of individual therapists • Manuals force individual clients into arbitrary categories. • Manuals have a dehumanising effect on the therapeutic process	• Practitioners reported varying degrees of clarity on what a treatment manual is • Clinicians who had helped to create a treatment manual had more positive attitude • Practitioners whose initial experiences with manuals were negative had significantly more negative attitudes
Najavits, Weiss, Shaw and Dierberger (2000)	• In general, response to manuals was very positive. Clinicians found them helpful and liked them • Manuals can be an important, helpful tool for clinical practice • Manuals can help one to become a better clinician • Manuals can be an important, helpful tool for research purposes	• Manuals limit one's creativity and innovation • Manuals impeded the development of new therapies by focusing on already existing therapies • A subgroup of 25% of therapists rated their liking of manuals on the lower half of the scale	• Several therapists provided write-in comments, most of which suggested deficits
Baumann, Kolko, Collins, and Herschell (2006)	• Manuals add structure to treatment sessions • Manuals improve therapeutic skills • Manuals serve as an additional resource from which pieces of information could be extracted • Manuals motivate practitioners • Manuals assist in assessments • Manuals build confidence	• Manuals aren't appropriate because of the uniqueness of each family • Manuals are unnecessarily rigid • Manuals lack adaptability • Manuals lack coverage for every issue that arise • Manuals are not as helpful as practical experience • Manuals lack spontaneity	• Many practitioners were unfamiliar with the term 'manual' and required an explanation, but were happy to offer opinions despite their lack of prior knowledge • Only a few practitioners mentioned experience in using a manual

Table 2 (continued):

Overview of findings from reviewed studies (N = 11)

Authors and Date	Positive attitudes and clinician factors relating to them	Negative attitudes and clinician factors relating to them	Qualitative comments by the authors
Nelson, Steele, and Mize (2006)	• None identified	• The relational aspects of the treatment were seen as more important than any other prosed mechanism of change • Negative attitudes about the research into treatment - the participants identified concerns regarding studies conducted under highly controlled conditions and a desire for summaries of relevant research	• None identified
Luebbe, Radcliffe, Callands, Green, and Thorn (2007)	• Most students were in agreement with the principles of evidence based psychological practice (EBPP)	• None identified	• Regarding evidence-based practice in psychology and the narrative descriptions provided by participants; 3.7% of students responses contained all three components, only 12.8% of definitions contained two of the three facets of EBPP
Barry, Fulgieri, Lavery, Chawarski, Najavits, Schottenfeld, and Pantalon (2008)	• Treatment manuals are important and useful • Research clinicians reported significantly higher importance ratings for ‘theoretical overview/rationale’ and ‘main session points to address’	• None identified	• Research clinicians rating manuals as slightly more important and useful than community clinicians did • Manual usefulness ratings were not associated with age, but higher ratings were significantly associated with fewer years of clinical experience

Table 2 (continued):

Overview of findings from reviewed studies (N = 11)

Authors and Date	Positive attitudes and clinician factors relating to them	Negative attitudes and clinician factors relating to them	Qualitative comments by the authors
Gaudiano, Brown, and Miller (2011)	• None identified	• Therapists who possessed a more negative attitude towards the role of research in clinical practice were more likely to rely on intuition • A greater reliance on intuition was associated with a lower willingness to comply with requirements to use evidence based treatments.	• None identified
Nakamura, Higa-McMillan, Okamura, and Shimabukuro (2011)	• Doctoral level practitioners were more open to Evidence Based Practices (EBPs) than Masters level practitioners • Licensed practitioners evidenced significantly better overall attitudes towards EBPs than unlicensed practitioners • Overall EBP knowledge accuracy did not significantly relate to attitudes towards EBP	• None identified	• Age, years of training, years of full-time clinical experience, typical number of active treatment cases, number of hours of supervision per week, licensure status, professional speciality, and primary theoretical orientation were not related to EBP knowledge levels • There was no relationship between attitudes and years of training, clinical experience, or professional discipline
Staudt and Williams-Hayes (2011)	• Treatment manuals can help keep therapists on track during therapy • Treatment manuals, if used appropriately, will enhance the average outcome of clients treated in psychotherapy • Using treatment manuals helps therapists evaluate and improve their clinical skills	• Treatment manuals are appropriate for well-defined problems but not for the majority of people seeking therapy • Using a treatment manual makes a therapist think more about sticking to the manual than about the needs of individual • Treatment manuals ignore the unique contributions of individual therapists	• Respondents who indicated more negative attitudes toward treatment manuals were less likely to indicate that manual contained ‘clinically relevant case examples’

Table 2 (continued):

Overview of findings from reviewed studies (N = 11)

Authors and Date	Positive attitudes and clinician factors relating to them	Negative attitudes and clinician factors relating to them	Qualitative comments by the authors
DiMeo, Moore, and Lichtenstein (2012)	• Evidence based treatments are client centred • They represent research and practice effectiveness • Evidence based treatments are an efficient utilisation of resources • Evidence based treatments provide structure, are measurable, and justifiable • They increase clinician confidence • They provide a common language and support	• Evidence based treatments are tested with inaccurate research techniques, have insufficient research support to address the breadth of human needs, and lack real-world treatment efficacy • Evidence based treatments do not integrate client characteristics • They are too structured • They do not integrate clinician expertise, • Clinician can feel unprepared or • uncomfortable using them	• No participants correctly included all three components of evidence based practice (research, clinical expertise, and client characteristics)
Stewart, Stirman, and Chambless (2012)	• None identified	• Clinicians prefer to work eclectically • Clinicians feel that empirical data needs to fit into their framework • Research is too controlled • Research misses the human component of therapy • There is sceptism about research and how evidence-based treatment will be used.	• None identified

Overview

Main patterns relating to positive attitudes identified were: (i) providing structure; (ii) helping clinicians to evaluate and improve their clinical skills; and (iii) manuals enhancing outcomes for clients. Main patterns relating to more negative attitudes were: (i) overemphasis on therapeutic techniques; (ii) dehumanising (both clients and therapists); and (iii) rigidity and inflexibility. Clinicians did have concerns about the research vs practice 'gap', and there was confusion about the definition of evidence-based treatment and evidence-based practice. Each of these points will be developed below. In keeping with Addis & Krasnow (2000), it was clear that positive and negative attitudes could co-exist in the same person.

Positive attitudes

Generally, the studies showed that clinicians did endorse positive attitudes about evidence based treatments, and that clinicians do find them 'useful' (Najavits, Weiss, Shaw & Dierberger, 2000; Barry, Fulgieri, Lavery, Chawarski, Najavits, Schottenfeld, & Pantalon, 2008; Luebbe, Radcliffe, Callands, Green, & Thorn, 2007).

One positive attitude which was found towards evidence based therapies was that they are useful in providing structure to therapy (Addis & Krasnow, 2000; Baumann, Kolko, Collins, & Herschell, 2006, Barry et al, 2008); Staudt & Williams-Hayes, 2011). DiMeo, Moore, and Lichtenstein (2012) found a similar pattern about structure, but also a negative attitude of 'too structured' (see negative attitudes – below). Participants also held attitudes relating to evaluation and clinician improvement (Addis & Krasnow, 2000; Najavits, Weiss, Shaw & Dierberger, 2000; Baumann, Kolko, Collins, & Herschell, 2006, Staudt

& Williams-Hayes, 2011). Using treatment manuals was felt to help a therapist 'evaluate and improve his or her clinical skills' (Addis & Krasnow, 2000), and to 'help one to become a better clinician' (Najavits, Weiss, Shaw & Dierberger, 2000). Finally, manuals were felt to enhance outcomes for clients (Staudt & Williams-Hayes, 2011; Najavits, Weiss, Shaw & Dierberger, 2000), if used appropriately (Staudt & Williams-Hayes, 2011).

It is important to note that many of these positive attitudes came from papers which were of poorer quality (Najavits, Weiss, Shaw & Dierberger, 2000; Staudt & Williams-Hayes, 2011). The sample sizes were small, and the analysis was poorly described in each paper. Therefore, these findings must therefore be interpreted with caution.

Negative attitudes

Despite the positivity of the above attitudes, there were also a range of negative attitudes found within the research. Despite the findings from Najavits, Weiss, Shaw and Dierberger (2000) being largely positive, a subgroup of 25% of therapists rating their liking of manuals on the lower half of the scale.

One negative attitude found was that evidence based treatments have an overemphasis on therapeutic techniques (Addis & Krasnow, 2000; Nelson, Steele & Mize, 2006). A further negative attitude was related to dehumanisation, with participants feeling that evidence based treatment can be dehumanising to both clients (Addis & Krasnow, 2000; Baumann, Kolko, Collins, & Herschell, 2006; DiMeo, Moore, & Lichtenstein, 2012) and therapists (Addis & Krasnow, 2000). Participants also had concerns regarding the rigidity and inflexibility of treatment manuals (Baumann, Kolko, Collins, & Herschell, 2006; DiMeo, Moore,

& Lichtenstein, 2012), including attitudes about evidence-based treatment being 'too structured' (DiMeo, Moore, & Lichtenstein, 2012).

Thus there was a mix of positive and negative attitudes towards evidence-based treatment. However, the positive attitudes came from papers which were of poorer quality, and thus caution must be heeded.

Factors found to influence attitudes

Evidence-based treatments are deemed to be more useful by clinicians who are less experienced (Barry, Fulgieri, Lavery, Chawarski, Najavits, Schottenfeld, & Pantalon, 2008), those who are less qualified, (Nakamura, Higa-McMillan, Okamura, & Shimabukuro, 2011), those who are less reliant on their own intuition (Gaudiano, Brown, & Miller, 2011), those who put less weight on their own personal experience (Nelson, Steele, & Mize, 2006; Staudt & Williams-Hayes, 2011), those who had assisted with creating a treatment manual (Addis & Krasnow, 2000), and those whose initial experiences with manuals were more positive (Addis & Krasnow, 2000). Finally, these were seen as more useful by clinicians who identified themselves as research clinicians rather than community clinicians (Barry et al., 2008).

There is disagreement over whether or not such attitudes to manualised treatments are driven by clinicians' beliefs. Addis and Krasnow (2000) found that beliefs about content of manuals were generally related to attitudes. For example, practitioners who thought manuals were a 'cookbook' of therapeutic techniques were more likely to rate them negatively. In contrast, Nakamura, Higa-McMillan, Okamura, and Shimabukuro (2011) found that overall evidence-based practice knowledge accuracy of clinicians did not significantly relate to their attitudes. It must be noted that both of these papers are of high quality. It is

possible that knowledge accuracy impact on attitudes relating to manuals specifically, but not the broader concept of evidence-based practice. There does seem to be some indication that ideas about what evidence-based treatment / evidence-based practice / manuals actually are could impact the attitudes that clinicians have towards them. But how accurate are clinicians in their perceptions of what these terms mean?

Clinicians' interpretations of evidence-based treatment and evidence-based practice

It is important to note the lack of clarity that clinicians seem to have regarding manuals, evidence based treatment, and evidence based practice. Participants were relatively unclear about what manuals were (Addis & Krasnow, 2000; Baumann, Kolko, Collins, & Herschell, 2006). Practitioners were equally unclear about evidence-based practice, with no participants (DiMeo, Moore, & Lichtenstein, 2012) or very few participants (< 5%; Luebbe, Radcliffe, Callands, Green, & Thorn**,** 2007) correctly identifying all three components of evidence based practice (research, clinical expertise, and client characteristics).

A number of studies found that clinicians very readily offered opinions and attitudes about acceptability of evidence-based practice, evidence-based treatment, and manuals, despite a striking lack of knowledge of the concepts themselves (Addis & Krasnow, 2000; Baumann, Kolko, Collins, & Herschell, 2006; DiMeo, Moore, & Lichtenstein, 2012)

The research-practice 'gap'

Research clinicians see theory and research as more important than community clinicians do (Barry, Fulgieri, Lavery, Chawarski, Najavits,

Schottenfeld, & Pantalon, 2008), and those who aspire to a research career feel evidence-based practice will more greatly influence their activities compared to those who aspire to a clinical practice career (Luebbe, Radcliffe, Callands, Green, & Thorn, 2007).

Clinicians see research that supports treatment efficacy, reliability and validity as being one of the main advantages of evidence-based treatments (DiMeo, Moore, & Lichtenstein, 2012). However, there were a number of concerns regarding research that the literature reviewed here highlighted. Clinicians perceive research as not generalizable to their clinical work, due to differences in research populations and 'real life' populations (Nelson, Steele, & Mize, 2006; DiMeo, Moore, & Lichtenstein, 2012; Stewart, Stirman, & Chambless, 2012). In contrast, it appears clear that researchers place greater importance on the evidence base than clinicians in practice. Thus, there is a perceived gap between research and practice, which is likely to affect clinicians' attitudes towards evidence-based practice.

Discussion

This review aimed to identify and summarise the attitudes that clinicians hold towards evidence-based therapies, to summarise what factors appear to affect clinician's attitudes, to explore whether clinicians feel there is a 'gap' between research and clinical practice, and to ascertain whether clinicians understand the difference between evidence-based practice and evidence-based treatment.

In keeping with the aims of this review, papers were chosen which were specifically about attitudes towards evidence-based treatment in general rather

than specific therapies / models. This helped to keep the review generic, rather than disorder or treatment specific. To have included papers which examined attitudes towards specific therapies would have been beyond the scope of this review, and would have necessitated further breaking down of the results into specific models.

The findings will be summarised below, along with a critique of the methodology used, a commentary on the clinical implications of the review, and some suggestions for further research.

Summary of Findings

In summary, there were a mixture of both positive and negative attitudes held towards evidence-based therapies. However, the positive attitudes came from papers that were of poorer quality, and thus caution must be heeded when interpreting the results. Evidence-based therapies were thought to be useful in

- providing structure to therapy (Addis & Krasnow, 2000; Barry et al., 2008; Baumann, Kolko, Collins, & Herschell, 2006; DiMeo, Moore, & Lichtenstein, 2012; Staudt & Williams-Hayes, 2011),
- aiding evaluation and clinician improvement (Addis & Krasnow, 2000; Baumann, Kolko, Collins, & Herschell, 2006; Najavits, Weiss, Shaw & Dierberger, 2000; Staudt & Williams-Hayes, 2011), and
- enhancing outcomes for clients (Najavits, Weiss, Shaw & Dierberger, 2000; Staudt and Williams-Hayes, 2011).

Negative attitudes were also found. Evidence-based treatments were felt to:

- have an overemphasis on therapeutic techniques (Addis & Krasnow, 2000; Nelson, Steele, & Mize, 2006),

- be dehumanising to both clients and therapists (Addis & Krasnow, 2000; Baumann, Kolko, Collins, & Herschell, 2006; DiMeo, Moore, & Lichtenstein, 2012), and
- be inflexibile and rigid (Baumann, Kolko, Collins, & Herschell, 2006; DiMeo, Moore, & Lichtenstein, 2012).

Evidence-based treatments are deemed to be more useful by clinicians who:

- are less experienced (Barry, Fulgieri, Lavery, Chawarski, Najavits, Schottenfeld, & Pantalon, 2008),
- are less qualified (Nakamura, Higa-McMillan, Okamura, & Shimabukuro, 2011),
- are less reliant on their own intuition (Gaudiano, Brown, & Miller, 2011),
- put less weight on their own personal experience (Nelson, Steele, & Mize, 2006; Staudt & Williams-Hayes, 2011),
- had assisted with creating a treatment manual (Addis & Krasnow, 2000),
- had initial experiences with manuals that were more positive (Addis & Krasnow, 2000), and
- identified themselves as research clinicians rather than community clinicians (Barry, Fulgieri, Lavery, Chawarski, Najavits, Schottenfeld, & Pantalon, 2008) .

There was confusion and lack of clarity between clinicians about the definition of manuals, evidence-based treatments, and evidence-based practice (Addis & Krasnow, 2000 Baumann, Kolko, Collins, & Herschell, 2006; DiMeo, Moore, & Lichtenstein, 2012). However, this lack of clarity did not appear to inhibit the clinicians in offering opinions about the concepts. Furthermore, there is a perceived ‘gap’ between research and clinical practice, with clinicians

seeing research as not generalizable to their clinical work (Nelson, Steele, & Mize, 2006; DiMeo, Moore, & Lichtenstein, 2012; Stewart, Stirman, & Chambless, 2012).

Methodological Critique

Critique of this review

An important consideration when interpreting these findings is whether the research reviewed was of a sufficient quality, which depends in turn on the adequacy of the use of critical appraisal tools such as that used here (QualSyst). A review of published critical appraisal tools found that few had been evaluated for their effectiveness in reviewing research (Katrak et al., 2004). Crowe and Sheppard (2011) drew similar conclusions. Dixon-Woods et al (2007) concluded that use of a critical appraisal tool did not always lead to more consistent judgements between experienced researched about the papers they were appraising. It is therefore important to note the potential limitations of using critical appraisal tools. This review has attempted to address some of these limitations by involving an independent other, who is also training in Clinical Psychology and therefore relatively experienced in reviewing papers.

Furthermore, there were two papers (Baumann et al., 2006; DiMeo et al., 2012) which employed a mixed methods approach. The QualSyst checklist (Kmet, Lee, & Cook, 2004) does not make recommendations about how to score such approaches, and so a combined scoring system was used by this author. This hybrid approach might not be a reliable or even valid approach for quality scoring a paper that employs a mixed methods approach.

In order to include only papers that consider attitudes towards evidence-based treatment or evidence-based practice generally, a great number of papers which focused on attitudes towards specific evidence-based treatment for specific disorders (e.g., attitudes towards exposure therapy for anxiety disorders – Deacon et al., 2013) were discounted. A further review might include such papers in order to ascertain whether attitudes differ dependent on the context of the evidence-based treatment.

Critique of papers used

The studies reviewed were attempting to extract and measure individuals' attitudes. Measuring attitudes has been consistently viewed as a difficult task (Cross, 2005), partially due to the potential for response bias. A key issue in the studies reviewed here is that attitudes were accessed through focus groups and Likert scales, which are potentially prone to social desirability bias. For example, in the studies reviewed here, the participants may have had pre-existing beliefs about what responses the researchers were expecting or would find helpful, and pitched their responses accordingly. Unfortunately, no studies in this review controlled for socially desirable response bias. For example, the Marlowe-Crowne Social Desirability Scale (Crowne, & Marlowe, 1960) could have been used to help assess whether respondents are responding truthfully or are misrepresenting themselves in order to manage their self-presentation.

The diversity of the measures used in the studies demonstrates the lack of agreement regarding how to access and measure attitudes towards evidence-based therapies, which limits the conclusions that can be drawn from this review. Furthermore, there has clearly been an issue highlighted regarding

clinicians' lack of knowledge of the difference between evidence-based therapy and evidence-based practice, and their lack of knowledge regarding what a manual actually is. These issues bring into question the validity of the clinicians' responses, as it is possible that their attitudes to the terms 'evidence-based treatment' and 'evidence-based therapy' are not reflective of how clinicians feel about the specific tasks involved. For example, when therapists are asked how much they value specific strategies used in therapy with clients with disruptive behaviour problems (versus being asked about evidence-based practice in general or about manualised treatments), they rate techniques consistent with evidence-based practice as more valuable than techniques not consistent with evidence-based practice (Brookman-Frazee et al., 2009). It needs to be considered whether the respondents in this review truly knew what they were expressing attitudes on.

Clinical and Training Implications

If evidence-based therapies can be seen as an innovation, then the relevance of Rogers' (2003) innovation diffusion theory can be considered. This theory proposes that five supporting stages are needed to diffuse an innovation:

(a) knowledge – exposure to the innovation and some understanding of how it functions

(b) persuasion – developing a positive or negative attitude toward the innovation

(c) decision – activities leading to a decision to adopt or reject the innovation

(d) implementation – using the innovation

(e) confirmation – sustainability for or against the innovation.

Of these five stages, strongest support exists for the first three, collectively known collectively as the knowledge-attitudes-practice process (K-A-P; Rogers 2003). In brief, the K-A-P process predicts that sufficient knowledge and favourable attitudes towards an innovation should influence whether it is adopted into practice. Therefore, it is clear that, in order to disseminate and implement specific evidence-based therapies, the negative attitudes that clinicians hold need to be challenged and shifted.

The research here suggests that more positive attitudes towards evidence-based treatments are held by those clinicians who are less experienced (Barry, Fulgieri, Lavery, Chawarski, Najavits, Schottenfeld, & Pantalon, 2008), and who presumably see themselves as needing to focus on the evidence rather than relying on their belief that their experience and intuition are sufficient to guide their work. This finding might help to explain why treatment outcomes decline the more experienced one becomes (Goldberg et al., 2016; Shapiro & Shapiro, 1982). Highlighting this finding to clinicians may help them to reflect on their own attitudes and assumptions about their intuition- and experience-based practice.

In terms of the view that evidence-based treatment is ‘dehumanising’ for clients, as it does not consider what they as an individual bring to therapy (Addis & Krasnow, 2000; Baumann, Kolko, Collins, & Herschell, 2006; DiMeo, Moore, & Lichtenstein, 2012), this could be due to clinicians’ faulty probabilistic reasoning. Evidence-based treatment might not be delivered because the clinicians believe that their client’s unique characteristics justify them being seen as an exception to the evidence base (Meyer et al., 2014). In such cases,

clinicians have been described as having the general view: “We aren’t dealing with groups, we are dealing with this individual case” (Meehl, 1973, p. 234).

Numerous barriers have been noted in the literature to dissemination and implementation efforts of evidence-based therapies (Cook, Biyanova, & Coyne 2008), including clinician attitudes potentially holding back dissemination efforts (Addis, 2002). The implementation of research-based clinical innovation takes a great deal of time, and it is calculated to take an average of 17 years for research evidence to reach clinical practice (Westfall, Mold, & Fagnan, 2007). Clinician attitudes may be one of the reasons for this lag. A more active means of dissemination is needed in order to get rigorous evidence-based treatment into general clinical practice (Sprang, Craig & Clark, 2008).

There are a number of ways in which evidence-based treatments can be more effectively disseminated. These may include easy access to manuals, allowing and encouraging clinicians to undertake training, and identifying mechanisms of action and outcome measures (Shafran et al., 2009). As found, common attitudes toward evidence-based practice and manualized treatments are that they are inflexible and unable to address the complexity of the issues an individual client brings to therapy. The method of breaking evidence-based protocols down into the manageable parts that function independently could address both of these concerns. This would allow clinicians to tailor their interventions to meet clients individual needs, as well as utilising a mixture of evidence-based practice elements for complex cases (e.g., Chorpita, Daleiden, & Weisz, 2005; Chorpita, Becker, & Daleiden, 2007; Higa & Chorpita, 2007). Therapists trained in such a modular approach demonstrate significantly improved attitudes towards evidence-based treatment after training, whereas

therapists trained in a standard evidence-based approach demonstrate significantly poorer attitudes towards specific elements of evidence-based treatment, such as flexibility (Borntrager et al., 2009). Wilson (1996) reminds us that to use manuals usefully, they need to be used flexibly.

It is worth bearing in mind the current economic climate. Many of these recommendations (e.g., accessing manuals, attending lengthy training, etc.) are likely to be costly, at a time when the National Health Service (NHS), including mental health services, are faced with stark budget cuts (McDaid & Knapp, 2010). A previous study (Deacon et al., 2013), has shown that clinicians' attitudes to exposure therapy improve as the result of a single training session on the value and implementation of the methods involved. This may be a more economically viable way of shifting clinician attitudes.

Future Research

It would be useful to conduct further, robust research into clinician's attitudes and how they are related to clinical outcomes. If negative attitudes were found to be related to more negative outcomes for their clients, it can be assumed that this would be a motivating factor for clinicians to address their more negative attitudes.

Further research is needed regarding the research-clinical practice 'gap'. It would be helpful to know more about how generalizable the evidence base truly is to general clinical practice, and to know more about how to engage clinicians in reading and processing the evidence base for their clinical setting. It will also be important to understand the confusion that appears to exist over the meaning of the terms 'evidence-based treatment' and 'evidence-based practice', and whether our awareness of the distinction is becoming clearer over

time or not. Such research will help us to understand the validity of clinicians' attitudes about such terms.

It would be helpful to know more about the characteristics of clinicians who hold more or less positive attitudes (e.g., more or less experienced), and of those who respond more or less positively to interventions aiming to improve their attitudes. It would be particularly useful to investigate the mechanisms behind the factors that influence response to interventions. Furthermore, if the 'dehumanising' attitude can be seen as a result of 'probabilistic reasoning' (Meyer et al., 2014), it would be worth investigating whether there is a link between clinicians' statistical reasoning skills and their attitudes towards evidence-based treatment.

As previously mentioned, a study has shown improvements in attitudes to evidence-based treatment following a single training session (Deacon et al., 2013). This study was looking at a specific type of evidence-based therapy; exposure therapy. It would be helpful to attempt to replicate this study to encompass other types of evidence-based therapy, and to determine the long term attitudinal and behavioural impact of such training. Such work could also consider the cost-effectiveness of such interventions.

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Appendices:

Appendix A: QualSyst checklists

Checklist removed

Appendix B: Article quality rating scores

Authors and date	Title of study	Quality appraisal score
Addis and Krasnow (2000)	A national survey of practicing psychologists' attitudes towards psychotherapy treatment manuals.	0.91 (20/22)
Najavits, Weiss, Shaw and Dierberger (2000)	Psychotherapists' views of treatment manuals.	0.64 (14/22)
Baumann, Kolko, Collins, and Herschell (2006)	Understanding practitioners' characteristics and perspectives prior to the dissemination of an evidence-based intervention.	0.90 (38/42)
Nelson, Steele, and Mize (2006)	Practitioner attitudes towards evidence-based practice: Themes and Challenges.	0.85 (17/20)
Luebbe, Radcliffe, Callands, Green, and Thorn (2007)	Evidence-based practice in psychology: perceptions of graduate students in scientist-practitioner programs.	0.91 (20/22)
Barry, Fulgieri, Lavery, Chawarski, Najavits, Schottenfeld, and Pantalon (2008)	Research- and community-based clinicians' attitudes on treatment manuals	0.86 (19/22)
Gaudiano, Brown, and Miller (2011)	Let your intuition be your guide? Individual differences in the evidence-based practice attitudes of psychotherapists	0.91 (20/22)
Nakamura, Higa-McMillan, Okamura, and Shimabukuro (2011)	Knowledge of and attitudes towards evidence-based practices in community child mental health practitioners	0.95 (21/22)
Staudt and Williams-Hayes (2011)	A state survey of child advocacy center therapists' attitudes toward treatment manuals and evidence-based practice	0.73 (16/22)
DiMeo, Moore, and Lichtenstein (2012)	Relationship of evidence-based practice and treatments: a survey of community mental health providers	0.83 (35/42)
Stewart, Stirman, and Chambless (2012)	A qualitative investigation of practicing psychologists' attitudes towards research-informed practice: Implications for dissemination strategies.	0.90 (18/20)

Appendix C: Table to show which quality rating criteria each paper met

	Quantitative criteria:														Qualitative criteria:									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	2	3	4	5	6	7	8	9	10
Addis and Krasnow. 2000	Y	Y	Y	Y	-	-	-	Y	Y	Y	P	P	Y	Y	-	-	-	-	-	-	-	-	-	-
Najavits et al. 2000	Y	Y	P	Y	-	-	-	P	P	P	P	N	P	Y	-	-	-	-	-	-	-	-	-	-
Luebbe et al. 2007	Y	Y	Y	Y	-	-	-	Y	Y	Y	P	P	Y	Y	-	-	-	-	-	-	-	-	-	-
Barry et al. 2008	Y	Y	Y	Y	-	-	-	Y	Y	Y	P	P	P	Y	-	-	-	-	-	-	-	-	-	-
Gaudiano et al. 2011	Y	Y	Y	Y	-	-	-	Y	Y	Y	P	P	Y	Y	-	-	-	-	-	-	-	-	-	-
Nakamura et al. 2011	Y	Y	Y	Y	-	-	-	Y	Y	Y	P	Y	Y	Y	-	-	-	-	-	-	-	-	-	-
Staudt and Williams-Hayes. 2011	Y	Y	Y	P	-	-	-	Y	P	P	P	P	P	Y	-	-	-	-	-	-	-	-	-	-
Baumann et al. 2006	Y	Y	Y	Y	-	-	-	Y	Y	Y	P	P	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
DiMeo et al. 2012	Y	Y	Y	P	-	-	-	Y	Y	P	P	P	Y	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	N
Nelson et al. 2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	Y	Y	Y	Y	Y	P	Y	Y	N
Stewart et al. 2012	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

Key: Y = Yes (2), P = Partial (1), N = No (0), - = not applicable

Section Two: Research Report

The impact of teaching on eating disorder clinicians' attitudes towards and utilisation of exposure therapy

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Abstract

Objectives: Findings in the literature have indicated that clinicians are poor at using exposure therapy to treat eating disorders, partly due to their negative attitudes to this therapeutic method. Previous research has shown that a teaching session can improve clinician attitudes. This study extends this research by adding a control condition, including a follow-up time point, and examining the impact on clinician behaviour.

Design: A non-randomised controlled research design, with between-subject (teaching condition) and within-subject (time) factors**.**

Methods: Eighty nine eating disorder clinicians attended either a specific 'exposure therapy' teaching session or a general 'distraction 'teaching session. Attitudes towards exposure therapy were measured before and after the teaching. Participants' intolerance of uncertainty and frequency of use of exposure was also assessed. Participants were invited to complete all measures again at a three month follow up.

Results: Attitudes towards exposure therapy improved both in the short and long term after attending the exposure teaching compared to the distraction teaching. The impact of the teaching session was not moderated by clinician anxiety. The resulting attitudinal shift did not result in increased use of exposure therapy.

Conclusions: Short, specific teaching sessions are useful in improving clinicians' attitudes towards exposure-based therapy, but not in improving utilisation of such methods. Future research is needed to investigate what type of intervention improves exposure therapy use in eating disorders.

Practitioner points:

- Specific exposure-based teaching sessions are successful in improving clinicians' attitudes towards exposure therapy, both in the short and long term.
- This attitudinal shift does not result in a corresponding increase in use of exposure therapy with patients.
- It is possible that increased exposure to exposure therapy itself is a key aspect of increasing utilisation (e.g., through session monitoring, role play, and supervisor encouragement.

Research points:

- Further research is needed to determine what interventions do result in clinicians' increasing their use of exposure therapy.
- An intervention that addresses likely behavioural change (e.g., an implementation intention) might be used prior to teaching interventions.
- Clinicians' beliefs about their patients (e.g., their vulnerability) might have a stronger impact on the use of exposure therapy than rather than their beliefs about that therapy. Therefore, future research should consider the impact of clinicians' perceptions of their patients on their use of exposure-based methods in therapy.

Introduction

Exposure therapy[1]

Exposure with response prevention involves the exposure of the patient to a feared object or context (in objectively safe conditions) without engaging in escape behaviours, in order to overcome their anxiety (Myers & Davis, 2007, pp. 141-142). The therapist identifies the thoughts, emotions and physiological response that accompanies a fear-inducing stimulus, then tries to break the pattern of escape that maintains the fear (De Silva & Rachman, 1981). In short, the exposure element enhances the patient's anxiety, and the response prevention element reduces the patient's reliance on their safety behaviours, allowing the patient to learn that anxiety declines without those behaviours. There are four main variations of exposure therapy. The first is *in vivo* or "real life." This type exposes the patient to actual fear-inducing objects, situations or activities. For example, a patient with arachnophobia (a fear of spiders) might be asked to handle a large spider, either immediately or after building up to the experience in stages (e.g., Murphy, Michelson, Marchione, Marchione, & Testa, 1998). The second type of exposure is *imaginal*, where patients are asked to vividly imagine a situation that they are afraid of. For example, a patient with Post-Traumatic Stress Disorder (PTSD) might be asked to recall and describe the traumatic incident, in order to reduce their feelings of distress (e.g., Tarrier et al., 1999). The third type of exposure is *interoceptive* exposure, which may be used for more specific disorders such as panic disorder. Patients confront feared bodily symptoms of a panic attack, such as increased heart rate and shortness of breath (e.g., Lee at al., 2006). The final type of exposure therapy is

[1] Where the term 'exposure therapy' is used in this paper, it should be assumed to represent the full term 'exposure with response prevention'

virtual reality exposure. For example, computer generated virtual environments have helped exposure acrophobic patients to tackle their fear of heights (e.g., Emmelkamp, Bruynzeel, Drost, & van der Mast, 2001).

Each of these forms of exposure therapy can be used as a stand-alone treatment or can be combined with other forms (Foa, 2007). It is considered to be the gold standard for the treatment of anxiety disorders (Barlow, 2002) and PTSD (Rauch, Eftekhari, & Ruzek, 2012). However, while exposure therapy has a strong theoretical base and record of effectiveness across disorders, it is implemented relatively rarely. As Harned et al. (2013, p.754) put it: “Exposure therapy (ET) has the dubious distinction of being one of the most empirically supported yet least used psychological treatments.”

Core features of the eating disorders

The eating disorders are anorexia nervosa, bulimia nervosa, binge eating disorder, and other specified feeding or eating disorder, as classified by the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association [APA], 2013). A network of inter-related maintaining mechanisms accounts for the persistence of these eating disorders. These include patients’ inclination to over-evaluate eating, shape and weight, and their need for control (Fairburn, Cooper, & Shafran, 2003). There is a high comorbidity between eating disorders and other diagnoses, such as depression and anxiety (Blinder, Cumella, & Sanathara, 2006). Lifetime prevalence estimates are 0.9% among women and 0.3% among men for DSM-IV anorexia nervosa, 1.5% among women and 0.5% among men for bulimia nervosa, and 3.5% among women and 2.0% among men for binge eating disorder (Hudson, Hiripi, Pope Jr, & Kessler, 2007). A recent review of the literature suggests that

while the overall incidence rate of eating disorders has remained stable over the past few decades, there has been an increase in anorexia nervosa in females in their late teens (Smink, Van Hoeken & Hoek, 2012).

Physical consequences of eating disorders can be irreversible or have later repercussions on health, especially those affecting the skeleton, the reproductive system, and the brain (Fairburn & Harrison, 2003). Eating disorders can impact on fertility (Hjern, Lindberg, & Lindblad, 2006) and cause perinatal difficulties (Sollid, Wisborg, Hjort, & Secher, 2004), potentially impacting on the next generation. Eating disorders have the highest mortality rates among psychiatric disorders (Arcelus, Mitchell, Wales, & Nielsen, 2011). The possible ramifications of these devastating illnesses highlight the need for evidence-based, effective treatment. Among those treatments for eating disorders, exposure therapy has a well-established role.

Exposure therapy and the eating disorders

Steinglass et al. (2011) highlight the overlap between eating disorders and anxiety disorders, and suggest that a treatment such as exposure with response prevention, which can shift anxiety driven behaviours and irrational beliefs, would be of use in treating eating disorders. It makes sense that exposure therapy could be potentially used in treating eating disorders, where anxiety is a key maintaining factor for behavioural symptoms such as restriction, bingeing, purging and body avoidance (e.g., Pallister & Waller, 2008), and can exacerbate avoidance of certain elements of therapy, such as weighing (e.g., Waller & Mountford, 2015). Such behavioural symptoms can be seen as safety behaviours. These safety behaviours inadvertently maintain the anxiety element of the eating disorders unless challenged (i.e., via response prevention), hence

the rationale for a strong exposure-based element to cognitive behaviour therapy for eating disorders (e.g., Waller et al., 2007). A recent review of the literature regarding exposure therapy for this client group (Koskina, Campbell, & Schmidt, 2013) indicated that use of naturalistic and personalised exposure settings, therapist-led and self-directed graded exposure, and use of virtual technology would all improve the efficacy of exposure therapy.

Utilisation of exposure therapy

As well as a strong evidence base, exposure therapy is also seen as relatively acceptable by patients with anxiety. For example, patients with anxiety see it as more likely to be effective long-term than medication (Deacon & Abramowitz, 2005), patients with agoraphobia see it as more acceptable and effective than psychotherapy and cognitive therapy (Norton et al., 1983), and potential PTSD patients see it as a sensible and desirable form of treatment (Becker et al., 2009). Richard and Gloster (2007) have suggested that the increased anxiety potentially experienced during exposure therapy may be less intimidating to anxious patients than we might expect, as these patients view it as a temporary exacerbation of a very familiar emotional response.

Generally, there is poor utilisation of exposure therapy by clinicians (Becker, Zayfert, & Anderson, 2004; Harned, Dimeff, Woodcock, & Contreras, 2013; van Minnen, Hendricks, & Olff, 2010). A number of studies have found a similar under-utilisation in eating disorder treatment (Turner, Tatham, Lant, Mountford, & Waller, 2014; Waller, Stringer, & Meyer, 2012). The low utilisation of exposure therapy is commonly found to be due to clinicians' anxiety about distressing the patient (Deacon & Farrell, 2013; Waller et al., 2012). It has also been indicated that when clinicians do use exposure therapy with clients, there

is substantial variability in the nature of the implementation, with clinicians often veering away from the recommendations of the treatment manuals (Deacon, Lickel, Farrell, Kemp, & Hipol, 2013; Hipol & Deacon, 2013). It is important to consider why clinicians' behaviour varies in this way. As is the case with all understanding of behaviour, it needs to be determined whether the clinicians' attitudes to exposure therapy are critical.

Clinicians' attitudes towards exposure therapy

Feeny, Hembree, and Zoellner (2003) found negative beliefs about exposure therapy to be common among clinicians. They describe four mains myths about exposure therapy within the literature: that exposure therapy is rigid and does not allow for adjusting to individual client needs; that exposure therapy alone is not enough for the complex client often seen in routine clinical practice; that existing evidence regarding the efficacy of exposure therapy does not generalize to real clinical settings; and that exposure therapy leads to symptom worsening and high dropout rates. These myths were 'debunked' by Feeny and colleagues, with a wealth of literature refuting the validity of these clinician beliefs (Feeny, et al., 2003). However, the presence of these 'myths' within the literature and in the thinking of many therapists might hint at the reasons why there is such poor utilisation of exposure therapy.

Other studies have also indicated that poor utilisation of exposure therapy may be due to clinicians' negative attitudes and beliefs (e.g., Deacon, Farrell, et al., 2013). Clinicians have been found to believe that exposure therapy can harm patients by: exacerbating symptoms (e.g., Cook, Schnurr, & Foa, 2004; Deacon, Lickel, et al., 2013; Frueh, Cusack, Grubaugh, Sauvageot, & Wells, 2006); producing cognitive decompensation (e.g., Becker et al., 2004);

causing actual physical harm (e.g., Rosqvist, 2005); and increasing drop-out rates (Cahill, Foa, Hembree, Marshall, & Nacash, 2006). Despite their not being founded in evidence, this set of beliefs can lead clinicians to view the process of exposure therapy as inherently unethical (Olatunji, Deacon, & Abramowitz, 2009). Furthermore, many clinicians also have beliefs that if they implement exposure therapy then it will result in harm to themselves, through malpractice litigation (e.g., Kovacs, 1996) or vicarious traumatization (Zoellner et al., 2011).

Clinicians' negative beliefs about exposure therapy appear to be unsubstantiated. For example, there is no evidence that even short-term enhanced anxiety reduces the impact or acceptability of exposure work from the patient's perspective (Deacon, 2012), or that incorporation exposure work in therapy results in increased risk of being sued (Richard & Gloster, 2007). Overall, there appear to be a number of negative attitudes toward exposure therapy held by clinicians. However, there are other factors which also impact on exposure therapy utilisation, such as clinician anxiety.

What impact does a clinician's anxiety have on their use of exposure therapy?

Previous research has indicated that a clinician's anxiety impacts on their use of exposure-based therapies. Higher levels of clinician anxiety are related to poorer uptake of evidence-based methods including exposure therapy (Waller et al., 2012), and also lead to an increased likelihood of excluding clients from exposure therapy (Meyer, Farrell, Kemp, Blakey, & Deacon, 2014). More specifically, clinicians who score more highly on a scale of Prospective Anxiety (the inability to tolerate unpredictable events) are more likely to be anxious about delivering exposure-based elements of therapy (Turner, Tatham,

Lant, Mountford, & Waller, 2014). It would be useful for us to know more about whether a clinician's anxiety interacts with the attitudes they hold towards exposure therapy, and whether clinician anxiety has an impact on the effectiveness of interventions attempting to improve attitudes.

How can we change attitudes to exposure therapy?

The need to train clinicians in the competent delivery of exposure has been identified as a priority (McHugh & Barlow, 2010). It seems clear such an intervention needs to address both clinicians' attitudes and their anxiety regarding exposure therapy. Various suggestions have been put forward, including attitude inoculation, use of role plays, and use of case material (e.g., Farrell, Deacon, Dixon, & Lickel, 2013), as well as suggestions that clinicians could be treated for their own anxiety about the delivery of exposure therapy (van Minnen et al., 2010). However, such interventions may prove expensive and difficult to disseminate widely.

There is some evidence that simpler interventions, such as training and teaching, can be effective in shifting attitudes. The knowledge-attitudes-practice process (K-A-P; Rogers 2003) predicts that sufficient knowledge and favourable attitudes towards an innovation should influence whether it is adopted into practice. Teaching and training seems a sensible approach for increasing clinicians' knowledge about exposure therapy. Deacon, Farrell, et al. (2013) have shown that a one-day didactic workshop has a very substantial positive effect on improving attitudes towards exposure therapy. The workshop did not specifically emphasise the therapists' prior reservations about exposure therapy, but rather talked more generally about the nature and exposure-based treatment of anxiety disorders.

A similar education-based approach has been tested with clinicians who work with eating disorders. In an uncontrolled pilot study, Waller, D'Souza Walsh, and Wright, (2016) measured the attitudes of eating disorder clinicians before and after attending a 90-minute didactic teaching session on the use of exposure in treating eating disorders. There was a substantial improvement in the clinicians' attitudes. Interestingly, and contrary to previous research, clinician anxiety was not found to be related to initial attitudes to exposure therapy. Holding particularly negative initial attitudes towards exposure therapy was found to be the only factor associated with a greater degree of positive attitudinal change following the teaching session

Both of the studies above suggest that teaching sessions can be useful in shifting clinicians' attitudes in the short term. This study aims to extend the prior research, to see if the findings of Waller et al. (2016) can be replicated in a controlled study, to examine whether these attitudinal changes are maintained long-term, and to determine whether any attitude change results in behaviour change (i.e., greater utilisation of exposure treatment with eating disorder clients).

Aims:

1: to determine whether receiving teaching about exposure therapy will have a bigger effect on eating disorder therapists' beliefs about exposure than receiving unrelated teaching.

2: to determine whether clinicians' beliefs about exposure therapy are associated with their own anxiety/intolerance of uncertainty.

3: to determine whether clinician anxiety moderates the impact of receiving a teaching session on exposure therapy on clinicians' beliefs.

4: to determine whether clinician anxiety is associated with clinician behaviour, in terms of carrying out exposure therapy with clients.

5: to determine whether clinician behaviour, in terms of how frequently they use exposure therapy, changes more after receiving exposure teaching, when compared to receiving unrelated teaching.

6: to determine whether clinician anxiety moderates the impact of such a training session on exposure therapy on clinicians' behaviour, in terms of carrying out exposure therapy with clients.

Hypotheses:

1: clinicians' beliefs about exposure will be more greatly affected by receiving teaching about exposure, compared to receiving unrelated teaching.

2: clinicians with higher anxiety and intolerance of uncertainty will hold more negative beliefs regarding exposure therapy.

3: clinicians' own anxiety levels will influence the impact of the training session on clinician beliefs, with more anxious clinicians being less likely to change their beliefs.

4. clinicians' own anxiety levels will impact on clinician behaviour, with more anxious clinician's being less likely to use exposure therapies than their less anxious colleagues.

5. clinician behaviour will change more after receiving teaching about exposure therapy compared to unrelated teaching. Clinicians who have received teaching about exposure therapy will report greater use of exposure therapy at follow-up.

6. clinicians' own anxiety levels will influence the impact of the training session on clinician behaviour, with more anxious clinicians being less likely to change their behaviour.

Method

Ethical considerations

Ethical approval was granted for the study by the University of Sheffield's Department of Psychology Research Ethics Committee. Supporting documentation can be found in Appendix D. The project has been registered as a clinical trial with URMS (#144005).

Informed consent to participate was ensured through providing a Participant Information Sheet (Appendix E). That sheet provided information about the study, including the purpose of the research, what taking part would involve, who would have access to the data, and how those data would be stored. Participants were explicitly asked whether they had read and understood the information sheet, and consented to completing the questionnaire (Appendix F). At follow-up, they were asked to consent to taking part again (Appendix G). Participants were required to provide identifying details (email address). All information provided was kept confidential, stored on a password protected computer, used for the purpose of this research only, and destroyed once no longer needed.

Design

The study employed a non-randomised controlled research design, with between-subject (teaching condition) and within-subject (time) factors. There were two groups – one that received teaching on exposure for eating disorders,

and another that received general teaching on eating disorders (not focused on exposure). Each group had signed up for the teaching, suggesting a comparable baseline interest in learning about treatment of eating disorders. Data were collected at the beginning and end of the teaching sessions, and at a three month follow-up point (using an online survey).

Sample size calculation

Sample size analysis (G*Power v 3.1.5, Faul, Erdfelder, Lang, & Buchner, 2007) was conducted using the primary outcome variable of the TBES scores as influenced by the type of intervention (assuming two groups at three time points). With an alpha of 0.05, a power of 0.9, and an effect size of 0.25, a total sample size of 36 participants would be needed (i.e., 18 per group). If the effect size were lower, then more participants would be needed (e.g. with an effect size of 0.2, then 28 would be needed per group).

Using the changes in TBES score reported by Deacon et al. (2013), the effect size would be 0.79. A similar effect was found by Waller et al. (2016). Using sample size analysis with the same characteristics outlined above would require a total sample size of six. However, the more conservative effect size of 0.25 was adopted for the current purpose, resulting in a planned recruitment of 36 participants overall. As shown below, this target was exceeded.

Participants

Forty seven participants took part in the exposure teaching and began the measures, and 27 participants took part in the follow-up from this group. Forty two participants took part in the distraction teaching and began the measures, and 18 participants took part in the follow-up from this group. They

had a mean average age of 39.5. The sample consisted of 16 males and 72 females, with one participant preferring not to disclose their sex. Participants had spent an average of ten years (*SD* = 8.8) working as a psychological practitioner, and an average of 7.2 years (*SD* = 8.2) working specifically with eating disorders. They spent an average of 17 hours per week (*SD* = 9.4) in face-to-face contact with clients. Further breakdown of these characteristics can be found in Table 2 (page 77).

Recruitment. The participants were qualified clinicians, delivering therapy to eating-disordered patients. The two sets of participants receiving teaching were recruited at teaching sessions regarding treating eating disorders, taking place in the UK and overseas. Participants had opted to attend the training themselves.

Inclusion and exclusion criteria. Participants were required to be over the age of 18 years, to be fluent in English, and to be volunteers.

Measures

The participants completed four measures prior to receiving the teaching. These included: demographic data (Appendix H); the Intolerance of Uncertainty Scale - IUS (Appendix I); Therapist Beliefs about Exposure Scale - TBES (Appendix J); and a questionnaire that measured the frequency of use of exposure techniques (Frequency of Exposure – FOE; Appendix K), designed for this study. At the end of the teaching session, they completed the Therapist Beliefs about Exposure Scale again. Finally, at the follow-up, they completed the Intolerance of Uncertainty Scale, the Therapist Beliefs about Exposure Scale, and the questionnaire measuring the frequency of use of exposure techniques.

Intolerance of Uncertainty Scale - Short Form (IUS-12; Carlton et al, 2007). The IUS-12 is a short version of the original 27-item Intolerance of Uncertainty Scale (Freeston, Rhéaume, Letarte, Dugas, & Ladouceur, 1994). It measures responses to uncertainty, ambiguous situations, and the future. The 12 items are rated on a 5-point Likert scale, ranging from 1 (not at all characteristic of me) to 5 (entirely characteristic of me). The scale consists of two subscales; Prospective Anxiety and Inhibitory Anxiety (Carleton, Norton, et al., 2007). Prospective anxiety is the inability to tolerate unpredictable events, where Inhibitory anxiety relates to the inability to act due to uncertainty. The Intolerance of Uncertainty Scale - Short Form (IUS-12) has a strong correlation with the original scale, r = .94 to .96 (Carleton, Norton, et al., 2007; Khawaja & Yu, 2010). Good convergent and discriminant validity, as well as internal consistency, have been demonstrated for the total score and both subscale scores (Carleton, Norton, et al., 2007; McEvoy & Mahoney, 2011).

Therapist Beliefs about Exposure Scale (Deacon et al., 2013). The TBES consists of 21 items (example item: 'Most clients have difficulty tolerating the distress exposure therapy evokes'). Each is rated on a 5-point Likert Scale, ranging from Strongly Disagree to Strongly Agree. The TBES has a clear single-factor structure, excellent internal consistency (α = .90-.96), and high six-month test-retest reliability (r = .89) (Deacon et al., 2013).

Frequency of use of exposure techniques questionnaire. This measure (the FOE) was developed by the researchers to ascertain how frequently clinicians use exposure techniques with their clients. The questionnaire is headed by the question 'Thinking back over the last two months, how often have you used the following techniques in sessions with your patients?' Example items include 'Weighed my patients within the session', 'Let

my patients know their specific weight after weighing', and 'Asked my patients to complete a food monitoring record between sessions'. The response options are 'never', 'rarely', 'occasionally', 'frequently', 'every time I have seen my patients', and 'not applicable'. A mean score of these responses is taken, with any 'not applicable' responses being removed from the calculation. The higher the mean score, the more the participant reports using exposure-based methods within therapy.

Procedure

Exposure teaching intervention group. Participants at a teaching session related to exposure therapy for eating disorders were given an information sheet (Appendix E) and consent form (Appendix F). Prior to the teaching session, they were asked to complete the demographics (Appendix H); Intolerance of Uncertainty Scale (Appendix I); Therapist Beliefs about Exposure Scale (Appendix J); and frequency of use of exposure techniques questionnaire (Appendix K).

The teaching session lasted for 90 min, and was delivered by the supervisor of this research. The following theory was covered: the psychology and physiology of anxiety; mechanisms of anxiety development and maintenance (including safety behaviours); the relationship of anxiety with eating; exposure based anxiety reduction mechanisms, and response prevention. Evidence about poor clinician utilisation of exposure therapy and potential reasons for this was provided. Practical application of exposure with response prevention to treat eating disorders was explored (e.g., changing eating patterns, weighing patients, delaying bingeing and purging behaviours,

body image exposure). The slides from this teaching session can be found in Appendix J.

After receiving the teaching, the participants then completed the Therapist Beliefs about Exposure Scale (Appendix J) again. Three months later, they were contacted for follow-up via email (see Appendix L). The information sheet (Appendix E) was attached to the email for reference. They were asked to complete the Intolerance of Uncertainty Scale (Appendix I); Therapist Beliefs about Exposure Scale (Appendix J); and Frequency of use of exposure techniques questionnaire (Appendix K) once more.

Distraction teaching intervention group. Participants at a teaching session (about eating disorders but not covering the topic of exposure) were given an information sheet (Appendix E) and consent form (Appendix F). They completed the Demographics (Appendix H); Intolerance of Uncertainty Scale (Appendix I); Therapist Beliefs about Exposure Scale (Appendix J); and frequency of use of exposure techniques questionnaire (Appendix K), prior to the teaching session. The teaching session lasted for 90 minutes and was related to CBT and eating disorders, without any specific teaching about exposure therapy. Again, it was delivered by the supervisor of this research.

The participants then completed the Therapist Beliefs about Exposure Scale (Appendix J) again after the teaching. Three months later, they were contacted for follow-up via email (see Appendix L). The information sheet (Appendix E) was attached to the email for reference. They were asked to complete the Intolerance of Uncertainty Scale (Appendix I); Therapist Beliefs about Exposure Scale (Appendix J); and frequency of use of exposure techniques questionnaire (Appendix K) once more.

Data Analysis

Data were entered directly by the researcher, and the follow-up data were downloaded from Qualtrics into an Excel spreadsheet, which was then transferred into the SPSS data file. The data were analysed using SPSS version 21 (IBM Corp., Armonk, NY). An alpha level of .05 was used to determine the statistical significance of all relevant results. Cronbach's alpha was used to determine the internal consistency of the TBES and IUS-SF scales, and Kolmogorov-Smirnov tests were used to determine whether the data were sufficiently normally distributed. The majority of the key variables were normally distributed, with the exception of the IUS Inhibitory anxiety scale ($p < .05$). Therefore it was decided to use Pearson's correlations, as these are reasonably robust in the face of isolated non-normality. Hypothesis 1 (clinicians' beliefs about exposure will be more greatly affected by receiving teaching about exposure, compared to receiving unrelated teaching) was tested using a paired t-test to compare pre- and post-teaching TBES scores. Other hypotheses were tested using a mixture of Pearson's correlations, independent samples t-tests, and ANOVAs, for dimensional and categorical variables.

All hypotheses were tested using completer analysis and intention to treat analysis. An intention to treat analysis is intended to avoid the potential influence of factors such as participants drop-out, and is therefore a more conservative measurement than completer analysis. Completer analysis only used the data provided by the participants, and discounted any participant who had not completed the later measures, whereas the intention to treat analysis used the 'first number carried forward' method. The 'first number carried forward' method assumes that any participants who have dropped out of the study between the teaching session and the follow-up will have reverted to the

attitudes they held prior to receiving the teaching. It is therefore more conservative than the 'last number carried forward' method, but this is a more appropriate approach where one cannot be certain that early effects of an intervention will be maintained.

Multiple tests will be used to analyse the data. However, these are hypothesis-driven rather than exploratory. Therefore, no adjustments were made to the alpha level used.

Results

Descriptive data

Initially, descriptive data (e.g., means and characteristics of the groups) and the psychometric properties (Cronbach's alpha) of the Intolerance of Uncertainty Scale, Therapist Beliefs about Exposure Scale and Frequency of Exposure Scale are presented in Table 1. The alpha levels of all measures were acceptable. The measures were normally distributed according to the Kolmogorov-Smirnov test, with the exception of the IUS Inhibitory anxiety scale ($p < .05$).

Table 1. Characteristics of the clinician group and psychometric properties of the IUS, TBES and FOE.

Clinician characteristics	**Mean**	**SD**	**Cronbach's alpha**	**Kolmogorov-Smirnov test (*p*)**
Age (years)	39.5	11.2	-	-
Time spent working as a psychological practitioner (years)	10.0	8.8	-	-
Time spent working specifically with eating disorders (years)	7.2	8.2	-	-
Face-to-face contact with clients per week (hours)	17.0	9.4	-	-
Pre-teaching				
Therapist Beliefs about Exposure Scale	41.9	10.1	.891	.862 *NS*
Intolerance of Uncertainty Scale – Prospective	14.7	4.3	.818	.377 *NS*
Intolerance of Uncertainty Scale – Inhibitory	7.7	2.8	.824	< .05
Frequency of Exposure Scale	3.7	0.8	.896	.214 *NS*

The two groups were compared at baseline to find out whether there was any pre-selection difference. As seen in Table 2, the participants who took part in the exposure teaching differed from those in the distraction teaching. They were more experienced in working within the field of eating disorders, had more positive attitudes about exposure therapy prior to teaching, and used exposure in their practice more frequently than participants in the distraction teaching group.

Table 2. Difference in characteristics of the two groups at baseline

	Exposure teaching		**Distraction teaching**			
	Mean	**SD**	**Mean**	**SD**	**t**	***p***
Age (years)	38.3	11.4	40.8	10.8	-1.0	.309 ^{NS}
Time spent working as a psychological practitioner (years)	10.8	9.8	9.1	7.3	.94	.351
Time spent working specifically with eating disorders (years)	9.3	9.0	4.3	6.0	2.77	< .05
Face-to-face contact with clients per week (hours)	17.4	10.1	16.6	8.7	.38	.071
Therapist Beliefs about Exposure Scale	39.2	10.2	45.0	9.2	-2.60	<.05
Intolerance of Uncertainty Scale – Prospective	15.2	4.6	14.2	3.9	1.03	.304
Intolerance of Uncertainty Scale – Inhibitory	7.4	2.4	8.1	3.1	-1.08	.282
Frequency of Exposure Scale	3.9	0.6	3.5	0.8	2.63	<.05

Hypothesis 1: clinicians' beliefs about exposure will be more influenced by receiving teaching about exposure, compared to receiving unrelated teaching.

Table 3 shows the results of paired t-tests, used to compare the participants' attitudes (TBES scores) at the relevant time points - prior to

teaching, after teaching, and at 3 month follow-up. Completer and intention-to-treat analyses were used. Where there was a statistically significant difference, effect sizes (Cohen's *d*) are used to demonstrate the strength of those differences.

Considering the completer analyses, it appears that teaching about exposure therapy had an impact on attitudes towards exposure. Their attitudes towards this type of therapy became significantly more positive, both in the short (d = 1.39) and long term, although the effect lessened by follow-up (final d = .50; a moderate effect size). The overall result was a significant improvement in attitudes to exposure among those clinicians in the active intervention.

In contrast, though the distraction group showed a medium but significant level of improvement in their attitudes immediately following the teaching (d = .50), that effect had disappeared by follow-up. Thus, in the distraction group, the short-term impact of the teaching was more limited, and there was no long-term impact.

A very similar pattern was found using the more cautious intention-to-treat analyses. This similarity suggests that the effect of the exposure teaching was relatively robust, with a medium effect size by follow-up.

Table 3 – TBES scores at each time point for both groups, compared using paired t-tests (completer analysis and intention to treat analysis)

Analysis	**Teaching**	***N***	***M***	***(SD)***	***M***	***(SD)***	***t***	***P***	***d***
Completer	Exposure		**Prior to teaching**		**After teaching**				
		39	39.03	(10.56)	30.87	(8.51)	8.21	.001	1.39
			After teaching		**At follow-up**				
		25	31.08	(9.33)	35.80	(11.21)	3.19	.004	-.66
			Prior to teaching		**At follow-up**				
		24	39.08	(10.34)	35.5	(11.34)	2.42	.02	.50
	Distraction		**Prior to teaching**		**After teaching**				
		29	45.17	(8.42)	42.34	(10.55)	2.53	.017	.50
			After teaching		**At follow-up**				
		17	40.0	(10.47)	44.88	(9.75)	3.32	.004	-.81
			Prior to teaching		**At follow-up**				
		16	45.56	(6.78)	45.88	(9.14)	.21	.843	-
Intention to treat	Exposure		**Prior to teaching**		**After teaching**				
		39	39.03	(10.57)	30.87	(8.51)	8.21	.001	1.39
			After teaching		**At follow-up**				
		40	30.78	(8.43)	36.98	(11.20)	5.08	.001	-.85
			Prior to teaching		**At follow-up**				
		42	39.19	(10.25)	37.78	(11.0)	2.31	.026	.36
	Distraction		**Prior to teaching**		**After teaching**				
		29	45.17	(8.43)	42.34	(10.55)	2.52	.017	.50
			After teaching		**At follow-up**				
		30	41.73	(10.89)	44.80	(9.85)	3.17	.004	-.59
			Prior to teaching		**At follow-up**				
		36	45.00	(9.18)	45.14	10.03	.21	.838	-

Two ANCOVAs were performed, to see determine whether there was a difference in post-group TBES scores when controlling for pre-existing attitudes. In the completer analysis, there was a significant difference in attitudes between the two groups after receiving the teaching ($F = 20.6$, $p < .001$, partial eta squared = .241), even when controlling for a significant covariant effect of the difference in attitudes prior to teaching ($F = 112.1$ $p < .001$). A similar pattern was found when performing intention to treat analysis ($F = 22.2$, $p = < .001$, partial eta squared = .228), controlling for the significant difference in pre-treatment TBES scores ($F = 146.4$, $p < .001$). In both cases, the effect size was very large, indicating that receiving exposure teaching has a much stronger effect on attitudes towards exposure therapy than receiving unrelated teaching.

However, as part of the K-A-P model (outlined above), it is important to determine whether such attitudinal change result in any change in behaviour (reported implementation of exposure therapy, as measured by the FOE) or level of clinician anxiety (IUS scores). Table 4 shows that the changes in attitude from beginning to follow-up were not mirrored by changes in behaviours or levels of clinician anxiety in either condition (active vs control), whether using intention to treat or completer analyses.

Table 4 – Mean Frequency of Exposure (FOE) scores, Intolerance of Uncertainly – Prospective (IUSP) scores and Intolerance of Uncertainty – Inhibitory (IUSI) scores for prior to teaching and at follow-up.

Analysis	**Teaching**		**Prior to teaching**		**Follow-up**				
			M	***(SD)***	***M***	***(SD)***	***T***	***p***	***d***
Completer	Exposure	**FOE**	3.84	(.60)	3.91	(.60)	.95	.35	-
		IUSP	15.17	(4.63)	14.96	(5.15)	.31	.76	-
		IUSI	7.63	(2.29)	7.59	(2.58)	.09	.93	-
	Distraction	**FOE**	3.27	(.83)	3.38	(.82)	1.01	.33	-
		IUSP	15.20	(3.59)	16.20	(5.51)	1.06	.31	-
		IUSI	8.82	(3.57)	9.47	(2.90)	1.04	.32	-
Intention to treat	Exposure	**FOE**	3.90	(.60)	3.94	(.59)	.96	.35	-
		IUSP	15.16	(4.56)	15.05	(4.86)	.30	.76	-
		IUSI	4.43	(2.35)	7.41	(2.52)	.10	.96	-
	Distraction	**FOE**	3.48	(.85)	3.51	(.83)	1.01	.32	-
		IUSP	14.18	(3.87)	14.58	(4.76)	1.06	.30	-
		IUSI	8.07	(3.14)	8.33	(2.94)	1.04	.31	-

Hypothesis 2: clinicians with higher intolerance of uncertainty will hold more negative beliefs regarding exposure therapy.

The start of intervention IUS and TBES scores were used to test this hypothesis. Both Pearson's and Spearman's correlation coefficients were performed, as the results of the IUS-Inhibitory scale are not normally distributed. Table 5 shows that there were no significant correlations the IUS scales and the TBES for either group, demonstrating that there was no evidence that levels of anxiety/intolerance of uncertainty are associated with beliefs about exposure.

Table 5 – Relationship between anxiety/intolerance of uncertainty and beliefs about exposure therapy prior to teaching

Teaching			Intolerance of Uncertainty – Prospective	Intolerance of Uncertainty – Inhibitory
Exposure	Therapist Beliefs about Exposure	Pearson Correlation	.305	.068
		Sig. (2 tailed)	.059	.667
		N	39	42
		Spearman's rho correlation	.267	.020
		Sig. (2 tailed)	.100	.900
		N	39	42
Distraction		Pearson Correlation	.002	.004
		Sig. (2 tailed)	.991	.982
		N	34	36
		Spearman's rho correlation	.023	.063
		Sig. (2 tailed)	.897	.714
		N	34	36

Hypothesis 3: clinicians' own anxiety levels will influence the impact of the training session on clinician beliefs, with more anxious clinicians being less likely to change their beliefs.

There are different methods of testing this hypothesis. The most direct way is to use ANCOVA. An ANCOVA was performed to examine whether covariance with anxiety (IUS scores) influences the impact of a teaching session on beliefs about exposure. The levels of TBES scores at each point are

given in Table 1. Table 6 shows the results of a two-way ANCOVA (Time x Group) on the dependent variable of TBES scores from the beginning to the end of training, using the two IUS scores as covariates. This analysis was carried out for the completer sample only, as the findings for the intention to treat sample were near identical.

Table 6 – ANCOVA results from the pre-post training comparison of beliefs regarding exposure (TBES), controlling for anxiety levels (IUS).

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Time (Pre – Post)	1.30	1	1.30	0.07	.795
Group (exposure teaching vs distraction teaching)	3174.5	1	3174.5	20.8	.001
Covariate effect of prospective intolerance of uncertainty	10.5	1	10.5	0.55	.461
Covariate effect of inhibitory intolerance of uncertainty	10.8	1	10.8	0.57	.455
Time x Group interaction	205.1	1	205.1	10.8	.002
Error(PrePost)	1124.462	59	19.1		

Table 6 demonstrates that there was a significant difference in TBES scores across the two groups, and a significant interaction of Time x Group. Both are as would be expected, given the pattern of t-tests in Table 1. However, there was no covariate effect of either IUS score, indicating that anxiety levels did not influence the outcome of the teaching sessions.

Hypothesis 4: clinicians' own anxiety levels will impact on clinician behaviour, with more anxious clinicians being less likely to use exposure therapies than their less anxious colleagues.

Both Pearson's and Spearman's correlations were used, given the earlier evidence that one IUS scale was not normally distributed. These correlations were used to determine whether clinician anxiety (IUS scores) and frequency of use of exposure therapy (FOE scale) are associated prior to teaching. Table 7 demonstrates that there were no such associations.

Hypothesis 5: clinicians who have received teaching about exposure therapy will report greater use of exposure therapy at follow-up.

The Exposure teaching group reported a mean FOE score of 3.84 (*SD* = 0.60) at the start of the teaching and 3.91 (*SD* = 0.60) at the follow-up point. The Distraction group reported a mean score of 3.27 (*SD* = 0.83) at the start of the teaching and 3.38 (*SD* = 0.82) at follow-up. A two-way ANOVA demonstrated a significant effect of group (F (1,38) = 6.28; p = .017), but there was no significant effect of time point (F (1,38) = 1.80; p = .188) and there was no significant interaction of time x group (F (1,38) = 0.05; p = .822). Therefore, while the groups differed in their reported use of exposure therapy throughout, there was no impact of the teaching on their use of exposure work regardless of what group they were in.

Table 7 – Relationship between anxiety and use of exposure therapy prior to teaching

Teaching			Intolerance of Uncertainty – Prospective	Intolerance of Uncertainty - Inhibitory
Exposure	Frequency of exposure	Pearson Correlation	-.091	-.116
		Sig. (2 tailed)	.561	.441
		N	43	46
		Spearman's rho correlation	-.015	-.099
		Sig. (2 tailed)	.925	.513
		N	43	46
Distraction		Pearson Correlation	-.165	-.059
		Sig. (2 tailed)	.360	.734
		N	33	36
		Spearman's rho correlation	-.154	-0.79
		Sig. (2 tailed)	.393	.649
		N	33	36

Hypothesis 6: clinicians' own anxiety levels and beliefs about exposure therapy prior to training will influence the impact of the training session on clinician behaviour.

This hypothesis was tested by repeating the ANOVA above with the two IUS scores and the TBES score as covariates. On this occasion, the previously significant effect of group was rendered non-significant (F (1,29) = 3.71; p = .064), and there remained no significant effect of time point (F (1,29) = 0.92; p = .344) or interaction of time x group (F (1,29) = 0.43; p = .519). Central to this

hypothesis, there were no significant covariate effects of the IUS Prospective Anxiety scale (F (1,29) = 0.44; p = .512), the IUS Inhibitory Anxiety scale (F (1,29) = 0.41; p = .527), or the TBES score (F (1,29) = 1.49; p = .231). Therefore, it can be concluded that the participants' levels of anxiety and negative attitudes to exposure did not impact on the behavioural effects of the different forms of training.

Discussion

This study aimed to examine whether clinicians' attitudes towards exposure therapy improve after attending an exposure-specific training session compared to a more general training session, and if so, whether those changes are maintained long term. It also intended to examine whether an attitude change resulted in a corresponding behavioural change (i.e., an increase in use of exposure therapy). Participants were eating disorder clinicians who were recruited from two different types of training sessions - training with a specific exposure therapy focus, and more general training about cognitive behavioural therapy within the eating disorders. They completed measures that examined their intolerance of uncertainty, their beliefs about exposure therapy, and how frequently they use exposure-based methods. This study had an adequate sample size to reach reliable conclusions about the impact of a teaching session on the attitudes and behaviour of eating disorder clinicians.

This discussion will summarise the main findings related to the hypotheses outlined earlier, and consider how the findings fit with the existing literature. The limitations of the study will also be discussed. Potential directions for future research and the clinical implications of these findings will be provided.

Summary of main findings

Both groups' attitudes towards exposure therapy improved following training, but there was a larger effect size for the group who had attended the exposure teaching compared to the distraction teaching. The participants in the exposure teaching showed a significant improvement in their attitudes from prior to teaching to follow-up. In the distraction teaching group, there was a non-significant deterioration in attitudes towards exposure therapy detected at follow-up. This specific exposure-related teaching was therefore successful in improving clinicians' attitudes towards exposure. Although a change in attitude was found, the attitudinal change did not result in either a change in behaviour (i.e., utilisation of exposure therapy) or a change in emotion (i.e., change in prospective or inhibitory anxiety) for either group.

Clinicians' anxiety was not found to be related to pre-existing beliefs about exposure therapy, or related to how often they used exposure therapy in clinical practice. Clinicians' anxiety did not influence the effectiveness of the teaching sessions on improving either attitudes or exposure therapy utilisation. It must be noted that the groups differed at baseline in terms of their experience in working within the field of eating disorders, their attitudes about exposure therapy, and their frequency of use of exposure, and therefore these findings should be viewed with caution.

Main findings in relation to existing literature

When compared to the participants in previous research by Deacon, Farrell, et al (2013) and Waller et al. (2016) the characteristics of the present

sample were comparable, for example, in being mainly women. The participants in the Waller et al. (2016) study were a very similar age and spent a similar amount of time in face-to-face contact with clients each week. They also had similar anxiety levels prior to teaching, on both the Intolerance of Uncertainty – Prospective Scale and Intolerance of Uncertainty – Inhibitory Scale.

The finding that attending a teaching session improves attitudes in the short term supports the findings of both Deacon, Farrell, et al. (2013) and Waller, et al. (2016). Crucially, this study extends the work of Deacon, Farrell, et al. (2013) and Waller, et al. (2016) as it includes a follow-up. In the current study, the effects of the teaching are maintained long term, but only if the teaching attended has a specific focus on eating disorders. This study also addressed some of the limitations highlighted by Waller et al. (2016). Use of a control group (the 'distraction teaching' group) and using the cautious intention to treat analysis here has made it less likely that the attitudinal change observed in our participants simply represented a regression to the mean or a response to generic teaching.

Clinician anxiety and beliefs about exposure therapy prior to receiving teaching did not influence the impact of the training session on clinician beliefs or behaviour. It was hypothesised that those with heightened anxious and pre-existing negative beliefs would be more 'stuck in their ways' and less likely to shift in attitude. In fact, previous research by Waller et al. (2016) and Arch et al. (2015) found the opposite to what we had hypothesised; namely, that a more negative attitude towards exposure therapy prior to teaching was in fact related to a greater degree of change in attitude and perceived credibility.

Finally, the findings indicated that although the exposure teaching session had an important impact on clinician's attitudes towards exposure

therapy long-term, it did not have a corresponding impact on the behaviour of clinicians. The knowledge-attitudes-practice process (K-A-P; Rogers 2003) predicts that sufficient knowledge and favourable attitudes towards an innovation should influence whether it is adopted into practice. The findings in this study provide support for the knowledge-attitudes link within this model, but not for the attitudes-practice link. This is a key finding, which will be commented on further in the 'recommendations for future research' section.

Limitations of this study

There are a number of limitations in this study which must be acknowledged. First, this study relied on self-report measures in order to measure attitudes. Asking participants about their attitudes via methods such as Likert scales is potentially prone to social desirability bias (Cross, 2005). In this study, factors such as a belief about what the researchers were expecting to find and the fact that many practitioners were completing the first two sets of questionnaires adjacent to their colleagues might have biased the participants' responses. Despite the fact that the participants all opted to attend the training, there may also have been a 'self-selection' bias involved. It is possible that the clinicians who sought out the exposure therapy based training did so because they were more motivated to challenge their pre-existing attitudes towards exposure therapy.

Second, both types of training sessions (exposure and distraction) were delivered by the supervisor of this study. It would be helpful to know whether the findings here are replicated by another trainer, or whether there are potential 'trainer effects' involved.

Finally, it must be noted that the clinicians who took part in this study had poorer attitudes about exposure therapy to begin with (scoring a mean of 41.9 on the Therapist Beliefs about Exposure Scale prior to receiving teaching) compared to those in the Waller et al. (2016) study (who scored 27.5 prior to teaching). This difference needs to be borne in mind when comparing the two studies. Due to all of the above limitations, caution must be heeded when interpreting the results of this study.

Recommendations for future research

There are a number of recommendations for future research that have arisen from this study. Extensions of the present study will be offered initially, before more general recommendations for future research in this area.

It would be useful for us to know about what interventions would result in clinicians' increasing their use of exposure therapy. The follow-up of this study was three months after the teaching. It is possible that it actually takes longer than this time period for clinicians to implement behaviour change into practice, or it is possible that there was an early behavioural change in the clinicians but that this had faded by the three-month follow-up. It would be helpful for future research to extend this study by including follow-up questionnaires at earlier and later points. Further studies could also examine the efficacy of short 'top-up' interventions (potentially delivered via video-clips emailed to participants) on eliciting change in clinician behaviour.

It is also possible that an additional intervention alongside the teaching session could result in a behaviour change. A previous study by Varra, Hayes, Roget, and Fisher (2008) was designed to improve the dissemination of evidence-based practice by increasing the psychological flexibility of clinicians

prior to training. They found that the addition of an Acceptance and Commitment Therapy (ACT) intervention prior to a teaching intervention was found to significantly increase clinicians' use of evidence-based pharmacotherapy methods, compared to clinicians who had only received the teaching intervention. A possible extension of this study could include a targeted session on ACT prior to delivering the exposure-based teaching, in order to target the clinicians' avoidance of difficult feelings, and absence of 'values-based action'. Alternatively, a simpler implementation intention approach could be used.

Considering the findings more broadly, further research could consider what factors increase or decrease the likelihood of clinicians using exposure-based methods. Meyer et al. (2014) found that clinicians feel they are justified in excluding patients from exposure-therapy when the patient has certain specific characteristics (e.g., emotional fragility). It is therefore a possibility that it is clinicians' beliefs about 'patient fragility' rather than clinicians own anxiety or attitudes towards exposure therapy that are at play when we attempt to understand poor utilisation of exposure therapy (Waller et al., 2016). Further research into clinicians' perceptions of their patients, and how this impacts on their decision to include or exclude exposure-based methods in therapy, would be helpful.

The internal reliability of our Frequency of Exposure Scale (Cronbach's Alpha of .896) indicates the robustness of this scale. We therefore endorse its use in future studies intending to measure how frequently clinicians use exposure therapy, but caution that further analysis into its psychometric properties would be desirable. If the Frequency of Exposure Scale was used in further research, further analysis into which specific methods of exposure are

more or less well used would be useful. This analysis could lead to additional examination of the mechanisms behind the reluctance to employ rarely used exposure-based interventions.

In any future studies aiming to examine clinician attitudes towards evidence-based therapies, it would be helpful to include a social desirability scale. For example, the Marlowe-Crowne Social Desirability Scale (Crowne, & Marlowe, 1960) would help assess whether clinicians are responding truthfully or are misrepresenting themselves in order to manage their self-presentation about their practice. Such an approach would help to address one of the limitations of bias highlighted in this study.

Finally, this type of study could also be replicated in other areas where there is a strong evidence-base for exposure-based therapy, for example, PTSD. Such an extension would help us to understand whether the lack of behavioural change following a teaching intervention is consistent across different contexts, or whether there is something unique to eating disorder practice that creates a barrier to use of exposure therapy.

Clinical implications

The main findings of this study are that treatment-specific teaching session interventions have been successful in improving clinician attitude towards exposure therapy, both in the short and long term. It is therefore of importance to highlight to clinicians the benefits of using exposure therapy in eating disorders.

However, this attitudinal shift does not result in a corresponding increase in use of exposure therapy with patients. It is possible that increased exposure to exposure therapy itself is a key aspect of increasing utilisation of this

important therapy (e.g., Meyer et al., 2014). Such an approach could be implemented in various ways, such as: changes in team policy about how to treat certain disorders (e.g., the clinician must use the strongest evidence-based therapy); encouraging observation and role play with peers who are more experienced in implementing exposure therapies; increased monitoring of clinical sessions; and supervisors encouraging the use of exposure-based therapies and challenging supervisees who avoid such methods. Supervisors could also employ methods used in ACT to target their supervisees' avoidance of difficult feelings, and absence of 'values-based action', or could encourage the use of implementation intentions around the use of key clinical methods.

Conclusions

This study has examined whether clinicians' attitudes and use of exposure therapy for eating disorders improve following attendance at a specific teaching session. Compared to a control group, clinicians' attitudes significantly improved following such a teaching session, both in the short and long term. However, this change did not result in a corresponding greater utilisation of exposure therapy. Further research is needed into what type of interventions would successfully increase clinicians' utilisation of exposure therapy in treating eating disorders, as well as other disorders.

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Appendices

Appendix D – Ethics approval confirmation

Forwarded message ----------
From: Psychology Research Ethics Application Management System <no_reply@psychologyresearchethicsapplicationmanagementsystem>
Date: 15 April 2015 at 20:58
Subject: Approval of your research proposal
To: G.Waller@sheffield.ac.uk

Your submission to the Department of Psychology Ethics Sub-Committee (DESC) entitled "Clinicians' attitudes to exposure therapy for eating disorders" has now been reviewed. The committee believed that your methods and procedures conformed to University and BPS Guidelines.

I am therefore pleased to inform you that the ethics of your research are approved. You may now commence the empirical work.

Yours sincerely,
Prof Paul Norman

Acting Chair, DESC

Appendix E – Information sheet

The University Of Sheffield.

Department Of Psychology.
Clinical Psychology Unit.

Charlotte Wright
Trainee Clinical Psychologist
Department of Psychology
University of Sheffield
Western Bank
Sheffield S10 2TP UK

Telephone: 0114 22 26568
Email: cwright3@sheffield.ac.uk
g.waller@sheffield.ac.uk

Clinicians' attitudes to exposure therapy for eating disorders

Today's teaching session is about the use of exposure therapy in treating eating disorders. Clinicians have a range of attitudes to eating disorders and to the use of different treatment methods, making us more or less likely to use those methods. We would like to know what your attitudes are to using exposure therapy techniques in particular. We would also like to understand who is likely to have more or less positive attitudes to exposure therapy, and to determine whether or not teaching sessions (such as this one) have any impact on those attitudes in the short- and long-term.

Therefore, we would be grateful if you would:

- complete the first part of this questionnaire (the consent form and the first two pages) now
- complete the final page at the end of the teaching session
- give your email address so that I can write to you in a few months, to ask you to complete a short questionnaire at that time

The questions ask for a few details about you, how comfortable you are with uncertainty, how much you use exposure in your clinical work at present, and your beliefs about exposure therapy in treating eating disorders. If you do not feel comfortable answering some of the questions, please omit them.

All answers are confidential. Your email address will be used to contact you for the second part of the study, but will not be stored electronically and will be destroyed once your answers have been collected. It will not be used for any other purpose.

If you would like a copy of a brief report on the outcome, then please email Charlotte Wright on: cwright3@sheffield.ac.uk.

If you have any questions or concerns, please contact Charlotte Wright or Glenn Waller (details provided above). If you have any further concerns, please contact the University of Sheffield's Office of the Registrar and Secretary at +44-114 222 1101. Obviously, if completing the measures makes you consider your clinical practice, we advise that you discuss the matter with your supervisor.

This research has been authorised by the Research Ethics Committee of the

Department of Psychology, University of Sheffield, UK (equivalent to a US IRB).
This sheet is for you to keep.

Appendix F – Consent form

The University Of Sheffield.

Department Of Psychology.
Clinical Psychology Unit.

Charlotte Wright
Trainee Clinical Psychologist
Department of Psychology
University of Sheffield
Western Bank
Sheffield S10 2TP UK

Telephone: 0114 22 26568
Email: cwright3@sheffield.ac.uk
g.waller@sheffield.ac.uk

Title of project: Clinicians' attitudes to exposure therapy for eating disorders

Consent Form

Thank you for your interest in taking part in this study. We aim to understand attitudes towards exposure-based therapy among clinicians who work with eating disorders. To take part, you will need to:

- complete a brief measure about yourself, your attitude to uncertainty, your use of exposure-based techniques, and your attitudes to exposure therapy
- repeat one measure later in the session
- provide your email address so that we can ask you to complete a brief measure in three months

All answers are confidential and no identifying information will be retained in connection with your answers. Your email address will be used for this purpose only. You may withdraw from this study at any point.

By signing this form you agree that you have read the information sheet, you understand it, and you are happy to participate.

Signed _____

Date _____

Email address _____
(this will not be used for any other purpose)

Appendix G – follow up consent form (online)

A few months ago you attended a conference where you completed some questionnaires. You also provided your email address so that we could contact you to complete a follow up study. We would be very grateful if you would fill in the follow up questionnaires now.

The questions ask about how comfortable you are with uncertainty, how much you use exposure in your clinical work at present, and your beliefs about exposure therapy in treating eating disorders. If you do not feel comfortable answering some of the questions, please omit them.

All answers are confidential. Your email address will not be stored electronically and will be destroyed once your answers have been collected. It will not be used for any other purpose.

If you would like a copy of a brief report on the outcome, then please email Charlotte Wright on: cwright3@sheffield.ac.uk.
If you have any questions or concerns, please contact Charlotte Wright or Glenn Waller (g.waller@sheffield.ac.uk). If you have any further concerns, please contact the University of Sheffield's Office of the Registrar and Secretary at +44-114 222 1101. Obviously, if completing the measures makes you consider your clinical practice, we advise that you discuss the matter with your supervisor.

Please confirm below that you consent to taking part in this study.

- I confirm that I have read the relevant information in the email sent, and I consent to taking part.
- I do not give my consent to take part in the study.

Appendix H – questions relating to demographics

A few questions about you

What is your age: _____ years

Gender: Male ☐ Female ☐

Ethnicity: Caucasian ☐ Asian ☐ African-American ☐
Hispanic/Latin ☐
Mixed Ethnicity ☐ Other (Please specify:
_____) ☐

How long have you been working as a psychological practitioner?
: _____ years
How long have you been working specifically with eating
disorders? : _____ years
How many hours per week do you spend in face-to-face contact
with clients: ____ hours
How experienced in delivering CBT techniques with clients do you
perceive yourself to be? (please circle)

Very inexperienced Inexperienced Neither experienced nor inexperienced Experienced Very experienced

Do you currently use exposure-based methods with your eating
disorder patients? YES / NO

- If 'YES', what percentage of your patient do you use these measures with? _____%

Appendix I - Intolerance of Uncertainty Scale – Short Form (Carlton et al, 2007).

(Measure removed)

Appendix J - Therapist Beliefs about Exposure Scale (Deacon et al, 2013).

(Measure removed)

Appendix K – Frequency of use of exposure techniques questionnaire

#(Measure removed)

Appendix L – email inviting participants to take part in follow-up

The University Of Sheffield.

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Title of project: Clinicians' attitudes to exposure therapy for eating disorders

Information email for follow up

Three months ago, you took part in a study of clinicians' attitudes towards exposure-based therapy for patients with eating disorders. This is the promised follow-up to that study (see the original information sheet that you were given – attached to this email as a reminder).

We would be grateful if you would complete these final measures by clicking this link
<link to Qualtrics survey, containing questionnaires in Appendices I, J & K>.

In the survey, you will be asked to give consent, to complete three short questionnaires, and to provide your email address again so that we can link your responses this time to the originals.

Again, all answers are confidential and no identifying information will be retained in connection with your answers. Your email address will be used for this purpose only. You may withdraw from this study at any point.

Finally, if you would like a copy of a brief report on the outcome, then please email me on: cwright3@sheffield.ac.uk.

Charlotte Wright

Trainee Clinical Psychologist
Supervised by Glenn Waller, DPhil, FAED

Appendix M – Exposure teaching slides

Using exposure with response prevention in CBT for eating disorders:
Why we don't, why we should, and how to do so

Glenn Waller

Clinical Psychology Unit
Department of Psychology
University of Sheffield

The University Of Sheffield.

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Overview

- What is exposure, and how does it work?
- Response prevention
  - stopping patients using safety behaviours
- Should we use exposure for eating disorders
  - and do we?
- Scared clinicians
  - why we don't use exposure as we could and should
- Our own safety behaviours
- Where to use exposure in eating disorders
  - cases to discuss
- Discussion time
  - what are we going to do differently next week?

First, a position statement…

- I am an unashamed nerd
- I believe that numbers and evidence matter
- And here is a quote that summarises it well…
- *"Numbers in [health] are not an abstract academic game: they are made of flesh and blood, and they show us how to prevent unnecessary pain, suffering and death."* (Goldacre, 2014)
- I like my patients, but want to get them well rather than keeping them forever…

And with nerdishness in mind...

- I am going to ask for some help from you
- If willing to help us understand what people do in everyday practice (and the impact of learning about it), then please complete the questionnaires as we get going
- Save the last page for the end
- Leave it at the back, and await an email in a few months...

In case you want to leave now...

- I plan to maintain my focus on evidence-based approaches to therapy and to CBT
  - which means that I will be sticking to very, very old methods
- To my shame
  - I do not have an app that will do this
  - it is not something that you can do on a phone
    - however smart it is
  - so all this will be in the real world
    - which makes it uncomfortable to do

A couple of questions

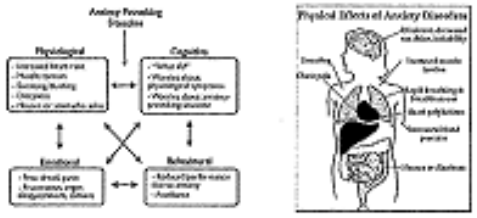
- Hands up if...
- 1. You are a nice person
- 2. You like your patients (by and large)
- 3. You would not want to upset your patients

What is exposure with response prevention, and how does it work?

(note: everything from here on in is transdiagnostic)

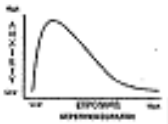
The basics: How does exposure work?

- General principles
- Anxiety reactions are normal and short-lived
  - e.g., running away from a bear...



The duration of anxiety reactions

- Limited primarily by our amount of adrenaline
- Some inter-individual differences
  - related to cortisol levels
  - not big differences
- 30-40 minutes duration
  - rapid rise, with a drop from about 10-15 minutes in
- Where we see 'chronic anxiety', it is usually low level and maintained by rapid use (and failure) of safety behaviours (e.g., SSRI discontinuation)
  - similar treatment approach using exposure



The basics: How does anxiety develop?

- Two mechanisms
- Classical conditioning (Pavlov, Wolpe)
  - e.g., anxious in the presence of angry parents
- Hard-wired (evolutionary)
  - e.g., reluctance to eat
- Little practical difference between the two in terms of treatment

The basics: What maintains anxiety?

- Anxiety reactions can become maladaptive
  - if we run away from/avoid what we fear
  - we end up avoiding even more
- Safety behaviours
  - fight, flight, or freeze
  - short-term anxiety reduction
  - long-term anxiety enhancement

Anxiety reactions in eating disorders

- Based on two mechanisms
  - 'broken cognition' in eating disorders
    - lack of belief in correspondence of eating and weight change
  - emotion regulation
- Safety behaviours
  - not eating
  - purging
  - bingeing
  - body avoidance
  - social avoidance
  - alcohol use
  - avoiding tasks (attending, homework, endings, etc.)

The basics: anxiety processes and eating

- Why does it matter that we become anxious?
  - Lucie – "I had to stop eating because my stomach was about to burst"
- Short-term - anxiety can make us reject food
  - incompatible with fight or flight
- Long-term - anxiety can make us eat more
  - blocking awareness when we cannot run away
  - operant conditioning
- Steinglass et al. (2011) is a good reference here

The basics: How does anxiety cease?

- Extinction/habituation
  - reaction is reduced through being explicitly unlinked from the trigger cue
    - e.g., "When I eat a cookie, I do not gain five pounds"
    - e.g., "Eating a cookie does not make me feel better"
- However, how do you learn that a cookie is safe to eat if you never eat one because you are scared?
  - so, the safety behaviour maintains the problem
  - anxiety, behaviour and cognition
    - cognitive dissonance

The basics: Methods to reduce anxiety

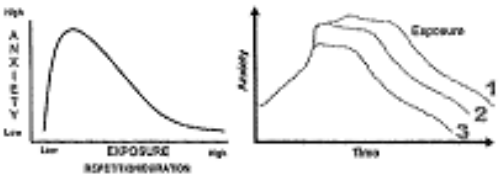
- Three evidence-based methods
- **Graded exposure**
  - gradually approaching the feared object/situation (hierarchy)
  - tolerating anxiety until it declines
  - then approaching further, etc.
  - takes several sessions of moderate anxiety
- Can be delivered in vivo or imaginally
  - according to the disorder and feared object
  - e.g., imaginal exposure for PTSD

The basics: Methods to reduce anxiety

- **Systematic desensitization**
  - as graded exposure, but with methods to reduce anxiety
  - relaxation, biofeedback
  - mindfulness/distraction? (let's come back to that one)
- **Flooding**
  - immersion in the feared situation immediately
  - one or two sessions of very high anxiety
  - can feel deeply unpleasant to deliver, too
  - this becomes an issue relating to body image...

The basics: How does exposure work?

- The pattern of change that you can expect to see over time and trials



- A clinical trainee wrote to me once after a teaching session...

Exposure within evidence-based practice

- Very strong evidence base with the whole range of anxiety-based disorders
  - phobias, social anxiety, PTSD, OCD, generalised anxiety, panic disorder, separation anxiety, etc.
- Craske (2008) suggests an inhibitory learning approach to understanding how effective exposure work is
  - adrenaline might be needed to learn
  - a lower amount of fear during the session is not the best indicator of whether the work is effective

Exposure within evidence-based practice

- Remember that the eating disorders have a strong anxiety component
- Going to demonstrate how many aspects of what we already do with our patients is based on exposure
- Again, look at Steinglass et al. (2011)

Beware of distraction methods

- Mindfulness work - calms the patient at the time, but leaves them more anxious than pure exposure to food
  - Marek et al. (2013)
- Similar findings for guided vs pure exposure to body image
  - Moreno-Dominguez et al. (2012)
- Danger that distraction methods reduce the anxiolytic effects of exposure
  - feels nicer to do it that way, but...

Response prevention: Stopping the safety behaviours

Anxiety as a motivator to action

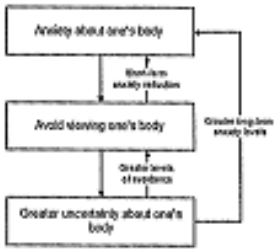
- Anxiety is an aversive state
  - cortical activation as we try to evaluate threat and resources
- <u>Two psychological elements to consider</u>
- Vulnerability
  - "I might be criticized for being overweight"
- Uncertainty
  - "I do not know how others see my body"
- Anxiety is a motivator
  - aim is to reduce uncertainty and vulnerability, to reduce the aversive state

Motivated action: safety behaviours

- Safety behaviours reduce our anxiety in the short term
  - providing certainty and reducing vulnerability
  - based on conditional ('if-then') beliefs
- Some examples of underlying beliefs
  - "If I don't eat, I might not gain weight"
  - "If I hide my body, no-one can criticize me"
  - "If I don't go out, then no-one can see how ugly I have become"
  - "If I throw up, I might gain less weight"
  - "If I don't eat today, then I might make up for the bingeing last night"

The problem with safety behaviours...

- Safety behaviours increase our anxiety and other negative emotions in the long term
  - adding to uncertainty
  - increasing vulnerability



The importance of response prevention

- If the individual uses the safety behaviour...
  - they do not learn that their fear is ungrounded
  - they learn to use more safety behaviours
    - escape and avoidance conditioning
- And that happens when clinicians allow it
  - or encourage it
- Key element – **response prevention**
- Which means keeping our patients anxious
  - see the problem with being a 'nice' therapist?

What does response prevention look like?

- Examples from outside of eating disorders...
- *Keeping a panicking patient from leaving when experiencing fear of a heart attack*
- *Keeping the socially anxious patient from drinking*
- *Keeping the traumatised patient focused on the trauma*
- Always important to teach the patient the skill

What does response prevention look like?

- In the eating disorders...
  - you might do this already, without having a label for it
  - more worryingly, you might have the label but not do it
- *Keeping the patient from the bathroom after a meal, to prevent vomiting*
- *Focusing the patient on examining her body*
- *Trying new foods*
- *Eating breakfast...*
- Always aiming for 30-40 minutes of anxiety

Maximising the effects of exposure

- Craske et al. (2014) propose several ways of enhancing inhibitory learning, including:

1. Maximum expectancy violation
   - start with high fear, and keep going until fear is down to a very low level
2. Deepen extinction
   - address the different fears separately, then together (e.g., individual foods before food combinations)
3. Remove the sense of safety
   - no safety behaviours/safety signals
4. Stimulus and context variability
   - bread one day, cheese the next, etc.

Should we use exposure for eating disorders (and do we)?

Should we use exposure?

- Given the evidence for exposure-based therapies, then of course we should
  - assuming that we want our patients to do well, of course...
- For example, in body image work, cognitive/ educational approaches on their own are far less effective than if one adds exposure-based work
  - Key et al. (2002)

Do clinicians use exposure appropriately?

- Use of exposure is rare and of dubious quality
  - Hipol & Deacon (2013); Sprang et al. (2008)
- Very few clinicians know about or feel comfortable using exposure
  - van Minnen et al. (2010)
- 90% of clinicians working with the military use none of the recommended therapies for PTSD
  - Russell & Silver (2007)
- Most clinicians use unevidenced methods
  - Ehlers et al. (2008); McAleavey et al. (2014)

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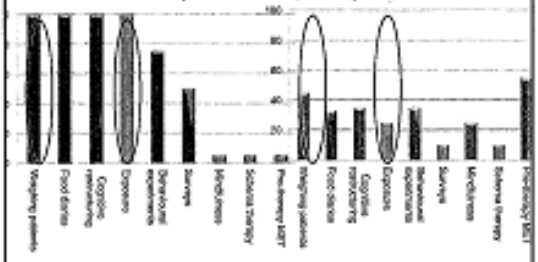
In case it makes us all feel better…

- The same applies to therapists dealing with a whole range of disorders
  - e.g., McAleavey et al. (2014); Szkodny et al. (2014); Wolf & Goldfried (2014)
- For example, if you had PTSD, you might want the best treatment…
  - Becker et al. (2004)
  - and good luck with that…

But surely we do in the eating disorders?
(Waller et al., 2012)



Scared clinicians: Why we don't use exposure as we could and should

So who avoids using exposure therapy?

- Eating disorders
- More anxious clinicians use less exposure work
  - Waller et al. (2012); Kosmerly et al. (2014); Turner et al. (2014)
- Does our anxiety matter to our patients?
  - associated with lower reported levels of weight gain in anorexia nervosa (Brown et al., 2014)
  - anxious clinicians focus more on the alliance to produce change, despite the evidence (Brown et al., 2014)

So who avoids using exposure therapy?

- Anxiety disorders
- Similar patterns
- More anxious clinicians avoid using exposure
  - Meyer et al. (2014); Odebunmi (2013)
- "Therapists who attempt to protect themselves from emotional distress during exposure run the risk of depriving clients from fully overcoming their pathological anxiety" (Deacon & Farrell, 2013, p.370)

Why don't we use exposure?

- Exposure 'has a public relations problem' (Deacon, 2012)
  - but more among clinicians than among patients
    - assuming that we have even heard of it, of course
- When clinicians have negative beliefs about exposure, we are more likely to conduct it poorly
  - wary about going far in the hierarchy
  - damp down the patient's anxiety
    - Deacon et al. (2013); Farrell et al. (2013)
- Or we just don't do it
  - how do we justify that to ourselves?

Common clinician beliefs about exposure

1. Exposure will worsen the patient's symptoms

•Foa et al. (2002) have tested this in PTSD
- most patients showed no exacerbation in symptoms
- a few had some temporary worsening, but soon relieved
- did not affect outcome or drop-out

•Does the same apply in the eating disorders?
- body image exposure
- eating differently

Common clinician beliefs about exposure

2. Patients will drop out of therapy

•Hembree et al. (2003) considered this, in therapy for PTSD
- compared drop-out rates across four different psychotherapies PTSD
- exposure, exposure + CBT, EMDR, anxiety management

•No difference in drop-out rates
- all around 20%
- all lower than for medication (Hembree & Cahill., 2007)

Common clinician beliefs about exposure

3. Patients will not like exposure therapy

•Patients are positive about the experience
- only a temporary exacerbation of symptoms, if at all
  - Becker et al. (2008); Brown et al. (2007); Norton et al. (1983)

•They see it as effective and valuable, though not always likable at the time (Cox et al., 1994)

Common clinician beliefs about exposure

4. "I'll get sued or a complaint if I use exposure"

•Surveys of clinicians have not revealed a single case of this sort

- Richard & Gloster (2007)

•Remember that our patients live with this level of anxiety 168 hour a week, and their fear is regularly triggered in real life

– yet we worry that the change needed for recovery will somehow 'break' the patient?

– "spun glass theory of the mind" (Meehl, 1973)

Why don't we use exposure properly?

- None of our beliefs seems to be accurate, yet we still fail to use exposure properly
- A further issue is…our own fear
  - of being disliked, being upset ourselves, of not being seen as 'nice'…
  - and that generates our own safety behaviours
- Therapists emphasise the relational element of treatment over the technique element, while patients treat them as equivalent
  - Deacon et al. (under consideration)

Clinician safety behaviours

REPLACE
FEAR OF THE
UNKNOWN
WITH CURIOSITY

Our safety behaviours

- What happens when we are anxious
  - scared of upsetting patients by asking them to change
  - feel worse about ourselves as clinicians
- We want our patients to like us
  - prioritise the relationship with the patient over recovery
  - a good relationship with a therapist is not the same as a therapeutic relationship
  - waiting for the patient to be ready to leap into action
  - so 'nice' that our patients never stop being ill…
  - playing along with their safety behaviours

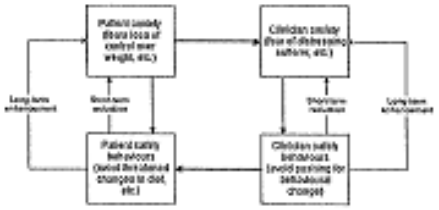
Interactive anxiety in the clinic

Interactive anxiety in the clinic

- As clinicians, we have our own safety behaviours, which stop us pushing for change

Interactive anxiety in the clinic

- Finally, our own safety behaviours interact with those of our patients *(accommodation)*



And what is the result of our safety behaviours as therapists?

- Meehl (1986) puts it best…
- We trade "feels better, warmer and cuddlier" for 'it works better and costs less'
  - "A shabby excuse indeed"

So ask yourself the critical questions…

- "Do I like my patients enough to make their lives harder in the short-term, if it makes them better in the long-term?"
- "Am I prepared to tolerate my own anxiety while therapy works?"
  - and to admit to it in supervision, where others can support me?
- Just imagine the utility of a surgeon who answered 'no' to those questions…

Examples of when to use exposure in eating disorders

Changing eating
Weighing the patient
Delaying bulimic behaviours
Body image exposure

Remember those two key elements

- Each of these is essential

1. Elevation of anxiety
   - cannot learn if there is no anxiety
   - finding the 'bite' point
2. Avoidance of safety behaviours
   - to reduce escape/avoidance conditioning
   - and this takes time…

Before doing anything…minimize risk

- Know what you are doing
- Use supervision to keep on track
  - less anxious about the outcome
  - debrief post-sessions
- Negotiate informed consent
  - explain the rationale and procedure to the patient
- Make sure that the task is not inappropriate
  - e.g., body image work with a severely abused patient
- Make sure that there is time to do the work
  - no early endings
    - Deacon (2012)

Changing eating

- Start with structure, then move on to content
  - 'forbidden' foods, etc.
- However, it is clearly not THAT simple…
  - patients terrified at the thought of eating differently
- Jasmine: "But if I eat like you say I need to, then my weight will go up and up and up, and I will get fat…I can't do that".
- How do we respond to this
  - productively? (reducing uncertainty, etc.)
  - harmfully? (our safety behaviours – *"How to..."*)

Weighing the patient

- Getting the patient **onto** the scales
- Jenny – "Oh no, I can't be weighed. It will make me binge/starve/kill myself"
- How to respond to this sort of statement
  - productively?
  - harmfully?

Weighing the patient

- Getting the patient **off** the scales (body checking)
- Not using the behaviour
- Tolerating the anxiety
- Learning that weight is unaffected, but that mood improves in time
- Emily – "I just HAVE to weigh myself before I come to the session"
  - explaining how that short-term anxiety reduction screws up her capacity to learn

Delaying bulimic behaviours

- Delay in order to give the anxiety time to decline
  - making the bulimic behaviours less necessary to suppress emotional states
- Mary wants to binge every evening at around 7pm
- Jenna gets the urge to vomit 2-3 times a day
- What can you suggest that will help Mary and Jenny to delay their behaviours until their anxiety has declined substantially?

Body image exposure

- The patient stands in front of a full length mirror for about 30-40 minutes, maintaining gaze
  - flooding rather than systematic desensitization
- The patient needs continual encouragement to stay there and to maintain focus
- Avoid distraction, mindfulness exercises, etc.
- Lisa: "You want me to get my patient to do what?! But that will make her run away"
  - how should you respond to this, as supervisor?
  - and remember that supervisors can be anxious too...

Body image exposure

- Monitor anxiety throughout
  - ask the patient to rate and note anxiety level every five minutes for an hour from the start
  - 0-100 scale
- Anxiety rises and reduces over the time involved
  - warn the patient about this
  - probably will rise (e.g., '50' to '90') within minutes, but takes about 20-30 minutes to start to fall
  - then can fall quite fast, as the patient runs out of anxiety
- This process will get shorter after a few trials

Body image exposure

- Body image improves over a few sessions
- But, much better if the patient practices at home
- So it is important to teach the necessary skills
- Can be useful to ask the patient to record sessions
  - and to listen back to the recordings before coming to your session

Handling patient and clinician anxiety

- Talk to the patient about what is involved
  - including the short- and long-term pros and cons
  - explain the rationale for flooding
  - give feedback from previous patients
- Talk to the patient throughout
  - calm but firm (e.g., Lock et al.'s recommendations about how to weigh patients)
- Clinician anxiety
  - use supervision to support this part of treatment
  - it gets easier with repeated experience…

What are we going to do differently next week?

This depends on a number of things…

- Are you using exposure work already?
  - and are you doing it right?
  - talk to your supervisor
- Are you working in a setting that needs collaboration between clinicians?
- Do you like your patients enough to push them to recover?
- Is your own anxiety making you think: "That doesn't apply to *my* patients…"?

What to do differently

- New patients
- Use exposure for all the anxiety-based elements of eating disorders, as outlined today
- Existing patients
- Decide whether you are brave enough to say to your patient: *"I have been missing out on giving you the best chance of getting well, so how about making a serious change in what we are doing?"*
  - no-one said that this was going to be easy…

And finally...just remember

- You might be scared of pushing your patients to change…
- …But your patients are terrified of that same change
- It is far easier to be 'nice' and calm things down in the short term, but you will be keeping the patient stuck
- It is kinder to be firm in the short term, and help your patient to leave their eating disorder behind

Questions and discussion time

Possible issues

1. Are we doing some or all of this already?
2. What will stop us making exposure a routine part of our practice?
3. How could we solve that problem?

AND PLEASE REMEMBER THAT QUESTIONNAIRE...

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