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# Practice-Based Evidence: Building an Evidence-Base From Practice

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*Calgary Counselling Centre Conference: December 2014*

- ▶ Worth the effort committing research time to investigate phenomena/experiences you believe are theoretically or practically important
- ▶ Devising, adapting, & adopting innovative research methods
- ▶ Science needs to adopt a shared frame of reference that has practitioners as equal partners
- ▶ Strive towards a level playing field
- ▶ No single research method can develop or deliver a comprehensive science of the psychological therapies



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# Evidence-Based Treatment and Practice

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*New Opportunities to Bridge Clinical Research and Practice,*

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*Enhance the Knowledge Base, and Improve Patient Care*

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Alan E. Kazdin  
*Yale University*



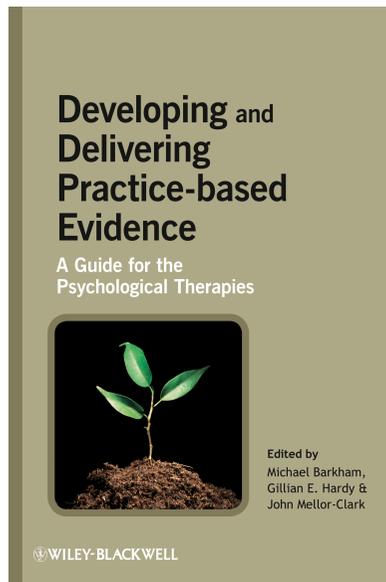
**The colander effect**



The task is to identify constructive changes that might be made in therapy research and practice to do what we do even better. Clinical experience, wisdom, novel hypotheses, and knowledge are often lost because they are not in a form that we codify and accumulate. We are letting knowledge from practice drip through the holes of a colander. We can plug up those holes to retain critical information, and we can feed this information into research designed to test hypotheses and add further support for what seems to be true from the data gathered in practice.



## Re-privileging practitioners

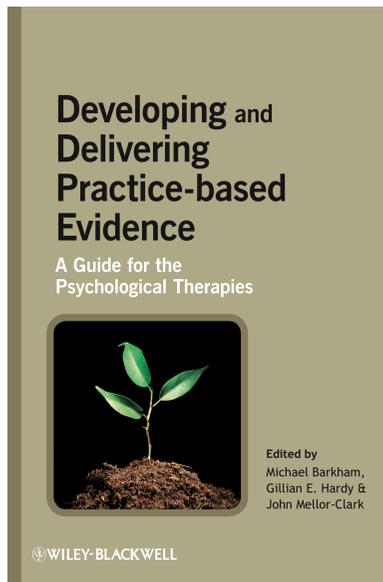


- Adopting a *bottom-up approach*
- *Measurement system* at its heart using common data methods
- Willingness to *collect & share data* with other practice communities
- ✓ Use data to improve practice
- ✓ Use data to enhance evidence and complement trials methodology



### Building a Rigorous and Relevant Knowledge Base for the Psychological Therapies

Michael Barkham<sup>1</sup>, William B. Stiles<sup>2</sup>, Michael J. Lambert<sup>3</sup> and John Mellor-Clark<sup>4</sup>  
<sup>1</sup>Centre for Psychological Services Research, University of Sheffield, UK,  
<sup>2</sup>Miami University, Ohio, USA, <sup>3</sup>Brigham Young University, Utah, USA,  
<sup>4</sup>CORE IMS, Rugby, UK



**Table 2.1** Hallmarks of randomized controlled trials and practice-based studies

<i>Trial/study feature</i>	<i>Randomized controlled trials</i>	<i>Practice-based studies</i>
<b>Design</b>	<ul style="list-style-type: none"> <li>• Formal: design provides the overarching rationale and framework for the trial/research</li> <li>• Control and/or contrast components of design are crucial</li> </ul>	<ul style="list-style-type: none"> <li>• Informal: design is placed ‘over’ already existing routinely collected data collection</li> <li>• Focus can be on translational work (i.e. testing efficacy findings in practice settings), investigation of quality or safety components, or process issues</li> </ul>
<b>Philosophy and policy</b>	<ul style="list-style-type: none"> <li>• Top-down approach: Invariably initiated by policy makers, funding agencies and researchers</li> </ul>	<ul style="list-style-type: none"> <li>• Bottom-up approach: Driven and owned by practitioners in service of quality agenda</li> </ul>
<b>Hypotheses</b>	<ul style="list-style-type: none"> <li>• Usually focused on a single ‘main’ scientific question</li> </ul>	<ul style="list-style-type: none"> <li>• Can focus on single or complex questions</li> </ul>

Investigator allegiance	<ul style="list-style-type: none"> <li>• Researcher usually an expert in candidate treatment being investigated</li> </ul>	<ul style="list-style-type: none"> <li>• More focused on delivery and service issues</li> </ul>
Sample	<ul style="list-style-type: none"> <li>• Highly selected: targeted according to specific hypotheses</li> <li>• Stringent inclusion and exclusion criteria applied to protect internal validity construct</li> </ul>	<ul style="list-style-type: none"> <li>• Unselected: initial sampling frame comprises all clients or practitioners</li> <li>• Study sample can comprise total pool of data or a selected subsample to focus on specific issues or subgroup</li> </ul>
Treatment(s)	<ul style="list-style-type: none"> <li>• Single/specific treatment(s)</li> <li>• Manualized</li> <li>• Additional training for therapists usual prior to study</li> <li>• Adherence ratings/checks</li> </ul>	<ul style="list-style-type: none"> <li>• All treatments as delivered in practice</li> <li>• Not manualized</li> <li>• No additional training other than would occur in fulfilment of continuing professional development</li> <li>• Adherence checks only as naturally adopted procedures within the service (i.e. not imposed by study requirements)</li> </ul>

<i>Trial/study feature</i>	<i>Randomized controlled trials</i>	<i>Practice-based studies</i>
Location	<ul style="list-style-type: none"> <li>• Not usually associated with specific service/delivery locations because focus is 'science' rather than 'practice'</li> <li>• Increasingly multisite implementation in order to yield required N of clients</li> </ul>	<ul style="list-style-type: none"> <li>• Often associated with local service(s) in order for feedback to be utilized</li> <li>• Can be single or multiple services depending on common methodology and question(s) being asked</li> </ul>
Measurement	<ul style="list-style-type: none"> <li>• Single primary outcome measure usually the standard with additional secondary outcomes</li> </ul>	<ul style="list-style-type: none"> <li>• Outcome and service parameters defined by common methodology</li> </ul>
Ethics	<ul style="list-style-type: none"> <li>• Ethics approval always required incorporating informed consent</li> </ul>	<ul style="list-style-type: none"> <li>• Ethics approval is usually best secured but use of routinely collected aggregated data should not raise concerns for review boards</li> </ul>
Relation of measurement to sample	<ul style="list-style-type: none"> <li>• Rich data on focused (small?) N of clients</li> </ul>	<ul style="list-style-type: none"> <li>• Rich data on large N of clients and practitioners although any study can be selective about what data to include</li> </ul>

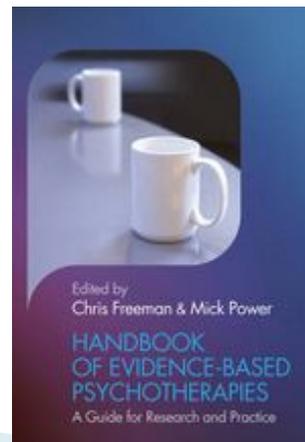


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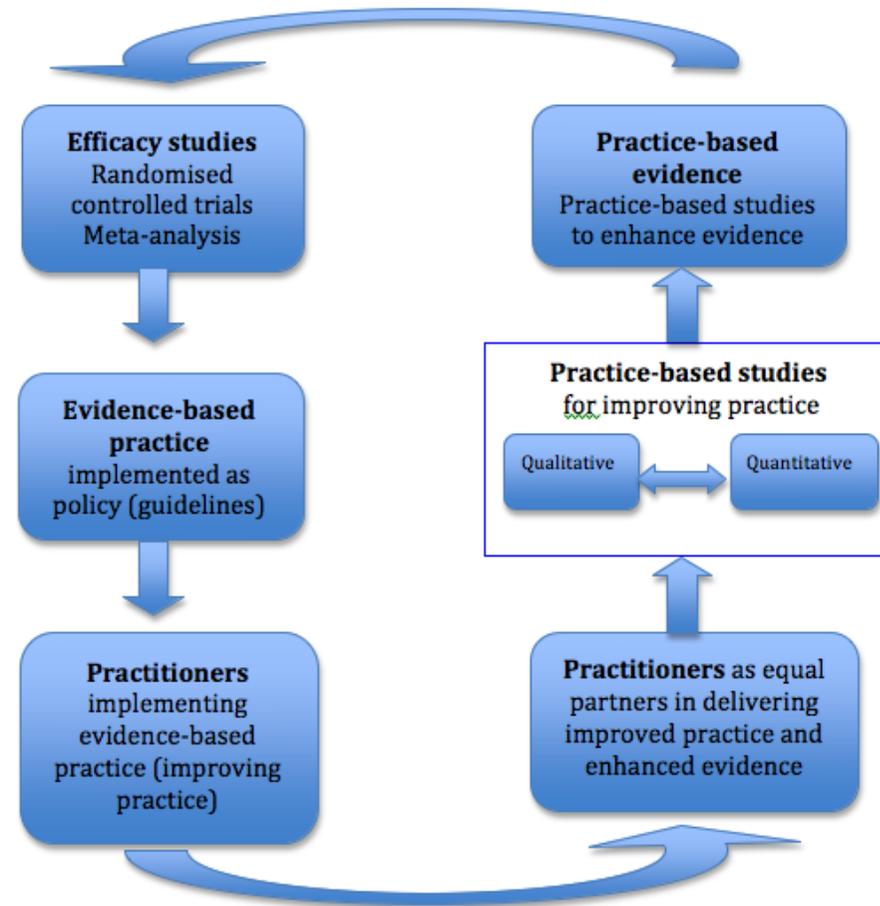
# Practice-based Evidence as a Complement to Evidence-based Practice: From Dichotomy to Chiasmus

Michael Barkham  
University of Leeds, UK  
and

Frank Margison  
Gaskell Psychotherapy Centre, Manchester, UK



## Chiasmus

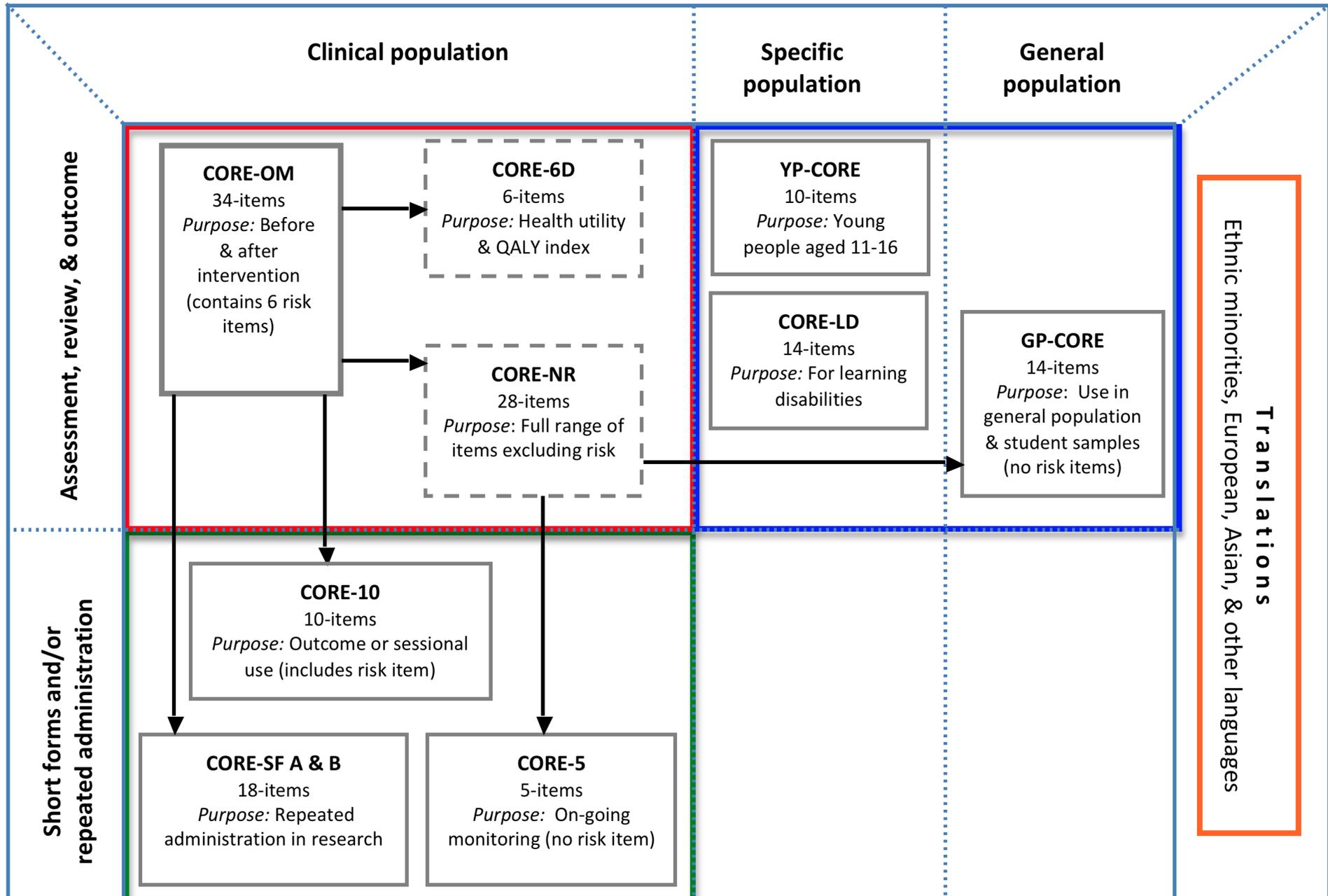




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## **Improving practice in the community of practitioners: A measurement system**

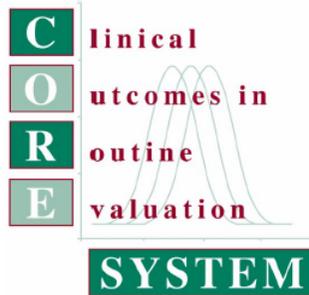
# Map of the CORE measures







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CORE-10 USER MANUAL

Version 1.0  
Released 1<sup>st</sup> June 2007

Counselling and Psychotherapy Research, 2013  
Vol. 13, No. 1, 3–13, <http://dx.doi.org/10.1080/14733145.2012.729069>



RESEARCH ARTICLE

**The CORE-10: A short measure of psychological distress for routine use in the psychological therapies**

MICHAEL BARKHAM<sup>1\*</sup>, BRIDGETTE BEWICK<sup>2</sup>, TRACY MULLIN<sup>2</sup>, SIMON GILBODY<sup>3</sup>, JANICE CONNELL<sup>1</sup>, JANE CAHILL<sup>2</sup>, JOHN MELLOR-CLARK<sup>4</sup>, DAVID RICHARDS<sup>5</sup>, GISELA UNSWORTH<sup>6</sup>, & CHRIS EVANS<sup>7</sup>

<sup>1</sup>Centre for Psychological Services Research, University of Sheffield, <sup>2</sup>University of Leeds, <sup>3</sup>University of York, <sup>4</sup>CORE IMS, Rugby, <sup>5</sup>University of Exeter, <sup>6</sup>Kingston Hospital, and <sup>7</sup>Nottingham NHS Trust & University of Nottingham, Nottingham, UK

**Site ID**

letters only    numbers only

**Client ID**

Therapist ID    numbers only (1)    numbers only (2)

**Sub codes**

D D    M M    Y Y    Y Y

**Date form given**

**Male**

**Age**    **Female**

**Stage Completed**

S Screening        **Stage**

R Referral   

A Assessment   

F First Therapy Session   

P Pre-therapy (unspecified)   

D During Therapy   

L Last Therapy Session   

X Follow up 1   

Y Follow up 2   

**Episode**

**IMPORTANT – PLEASE READ THIS FIRST**

This form has 10 statements about how you have been OVER THE LAST WEEK.  
Please read each statement and think how often you felt that way last week.  
Then tick the box which is closest to this.  
*Please use a dark pen (not pencil) and tick clearly within the boxes.*

		Not at all	Only Occasionally	Sometimes	Often	Most or all the time				
1 I have felt tense, anxious or nervous	<input type="checkbox"/>	0	<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4
2 I have felt I have someone to turn to for support when needed	<input type="checkbox"/>	4	<input type="checkbox"/>	3	<input type="checkbox"/>	2	<input type="checkbox"/>	1	<input type="checkbox"/>	0
3 I have felt able to cope when things go wrong	<input type="checkbox"/>	4	<input type="checkbox"/>	3	<input type="checkbox"/>	2	<input type="checkbox"/>	1	<input type="checkbox"/>	0
4 Talking to people has felt too much for me	<input type="checkbox"/>	0	<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4
5 I have felt panic or terror	<input type="checkbox"/>	0	<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4
6 I made plans to end my life	<input type="checkbox"/>	0	<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4
7 I have had difficulty getting to sleep or staying asleep	<input type="checkbox"/>	0	<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4
8 I have felt despairing or hopeless	<input type="checkbox"/>	0	<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4
9 I have felt unhappy	<input type="checkbox"/>	0	<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4
10 Unwanted images or memories have been distressing me	<input type="checkbox"/>	0	<input type="checkbox"/>	1	<input type="checkbox"/>	2	<input type="checkbox"/>	3	<input type="checkbox"/>	4
<b>Total (Clinical Score*)</b>										

\* **Procedure:** Add together the item scores, then divide by the number of questions completed to get the mean score, then multiply by 10 to get the Clinical Score.

**Quick method for the CORE-10 (if all items completed):** Add together the item scores to get the Clinical Score.

**THANK YOU FOR YOUR TIME IN COMPLETING THIS QUESTIONNAIRE**



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Counselling and Psychotherapy Research, September 2009; 9(3): 160–168



RESEARCH ARTICLE

**The Young Person's CORE: Development of a brief outcome measure for young people**

ELSPETH TWIGG<sup>1\*</sup>, MICHAEL BARKHAM<sup>2</sup>, BRIDGETTE M. BEWICK<sup>3</sup>, BRENDAN MULHERN<sup>3</sup>, JANICE CONNELL<sup>4</sup>, & MICK COOPER<sup>5</sup>

<sup>1</sup>Freelance Statistician and Research Consultant, <sup>2</sup>Centre for Psychological Services Research, University of Sheffield, S10 2TP, <sup>3</sup>Leeds Institute of Health Sciences, University of Leeds, LS2 9LI, <sup>4</sup>Institute of Psychological Science, University of Leeds, LS2 9JT, and <sup>5</sup>Counselling Unit, University of Strathclyde, Glasgow, G13 1PP, UK



CORE-YP

Assistance given?   
(If yes, please tick)

Site ID	<input type="text"/>	Male	<input type="checkbox"/>
Client ID	<input type="text"/>	Female	<input type="checkbox"/>
	<input type="text"/>	Age	<input type="text"/>
	Letters only	Numbers only	
Therapist ID	<input type="text"/>	Stage Completed	
Subcodes	<input type="text"/>	S Screening	
Numbers only (1)	<input type="text"/>	R Referral	
Numbers only (2)	<input type="text"/>	A Assessment	
Date form given	<input type="text"/>	F First Therapy Session	Stage
d d / m m / y y y y	<input type="text"/>	P Pre-therapy (unspecified)	<input type="checkbox"/>
		D During Therapy	
		L Last Therapy Session	Episode
		X Follow up 1	<input type="checkbox"/>
		Y Follow up 2	<input type="checkbox"/>

These questions are about how you have been feeling OVER THE LAST WEEK. Please read each question carefully. Think how often you have felt like that in the last week and then put a cross in the box you think fits best. Please use a dark pen (not pencil) and mark clearly within the boxes.

OVER THE LAST WEEK...	Not at all	Only occasionally	Sometimes	Often	Most or all of the time
1. I've felt edgy or nervous	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
2. I haven't felt like talking to anyone	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
3. I've felt able to cope when things go wrong	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0
4. I've thought of hurting myself	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
5. There's been someone I felt able to ask for help	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0
6. My thoughts and feelings distressed me	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
7. My problems have felt too much for me	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
8. It's been hard to go to sleep or stay asleep	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
9. I've felt unhappy	<input type="checkbox"/> 0	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
10. I've done all the things I wanted to	<input type="checkbox"/> 4	<input type="checkbox"/> 3	<input type="checkbox"/> 2	<input type="checkbox"/> 1	<input type="checkbox"/> 0

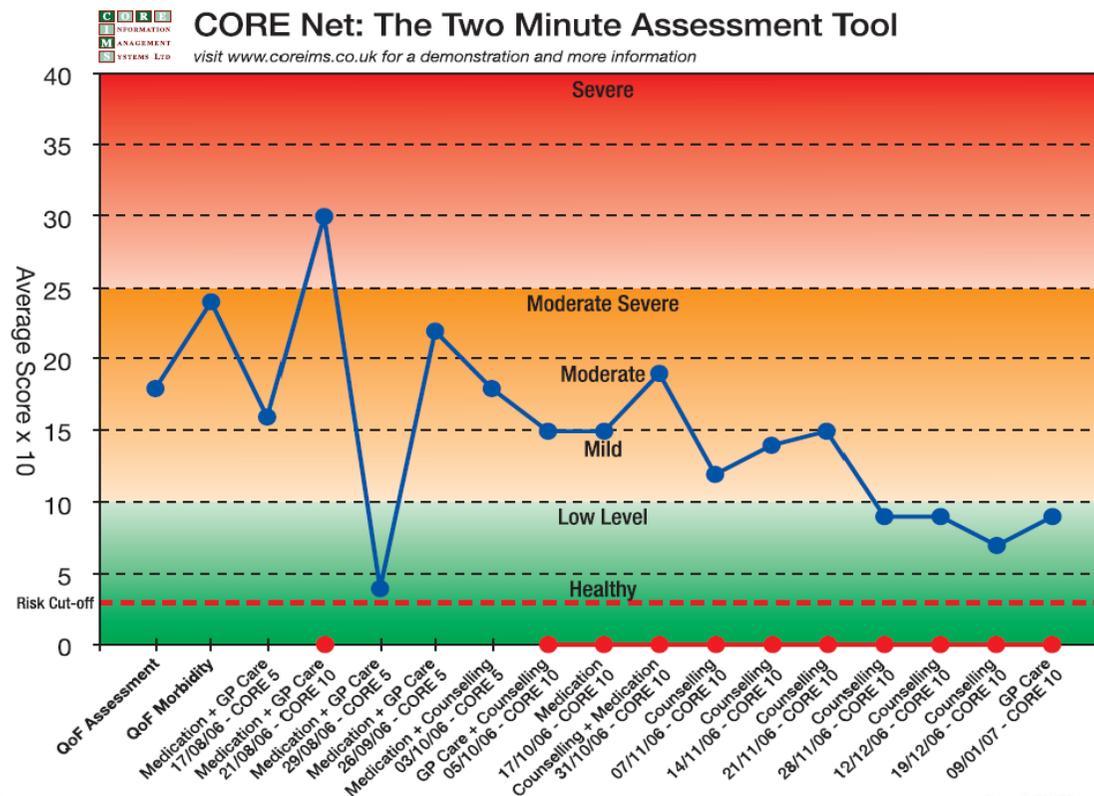
Thank you for answering these questions

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Supported by www.coreims.co.uk

## Clinical Outcomes in Routine Evaluation (CORE) – The CORE Measures and System: Measuring, Monitoring and Managing Quality Evaluation in the Psychological Therapies

Michael Barkham<sup>1</sup>, John Mellor-Clark<sup>2</sup>,  
Janice Connell<sup>3</sup>, Chris Evans<sup>4</sup>, Richard Evans<sup>5</sup>  
and Frank Margison<sup>6</sup>

<sup>1</sup>Centre for Psychological Services Research, University of Sheffield, UK,  
<sup>2</sup>CORE IMS, Rugby, UK, <sup>3</sup>University of Sheffield, UK, <sup>4</sup>University of  
Nottingham, UK, <sup>5</sup>CORE System Trust, Bath, UK, <sup>6</sup>Manchester Mental  
Health and Social Care Trust, UK





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# **Enhancing the evidence base for the psychological therapies from practice-based studies**



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## CORE Practice-based evidence dataset: Overall outcomes 2005

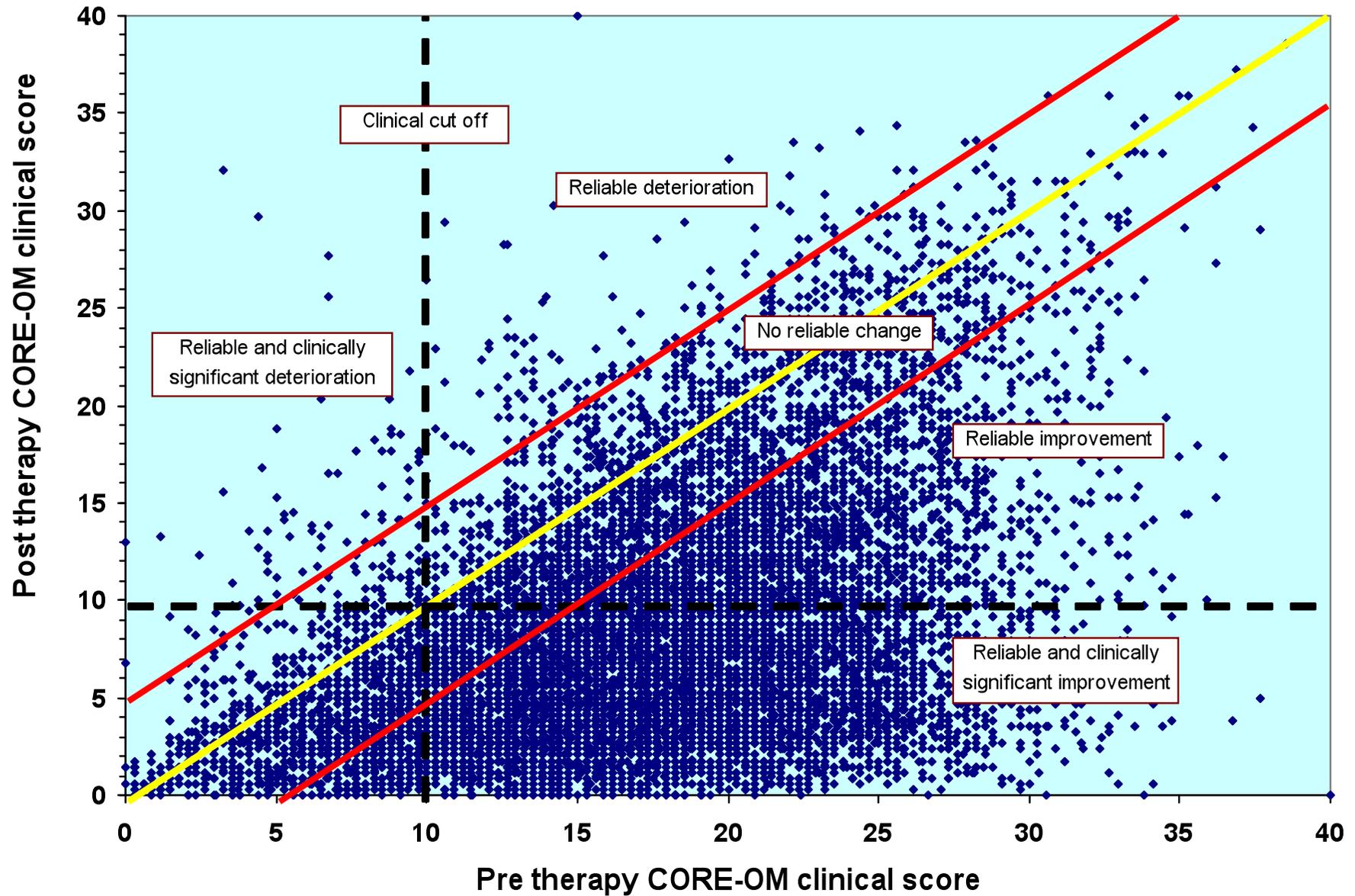
- ▶ Outcomes as numbers at the group level

N = 9761

61.9% recovered

81.4% improved

- ▶ Same data as 9761 individuals

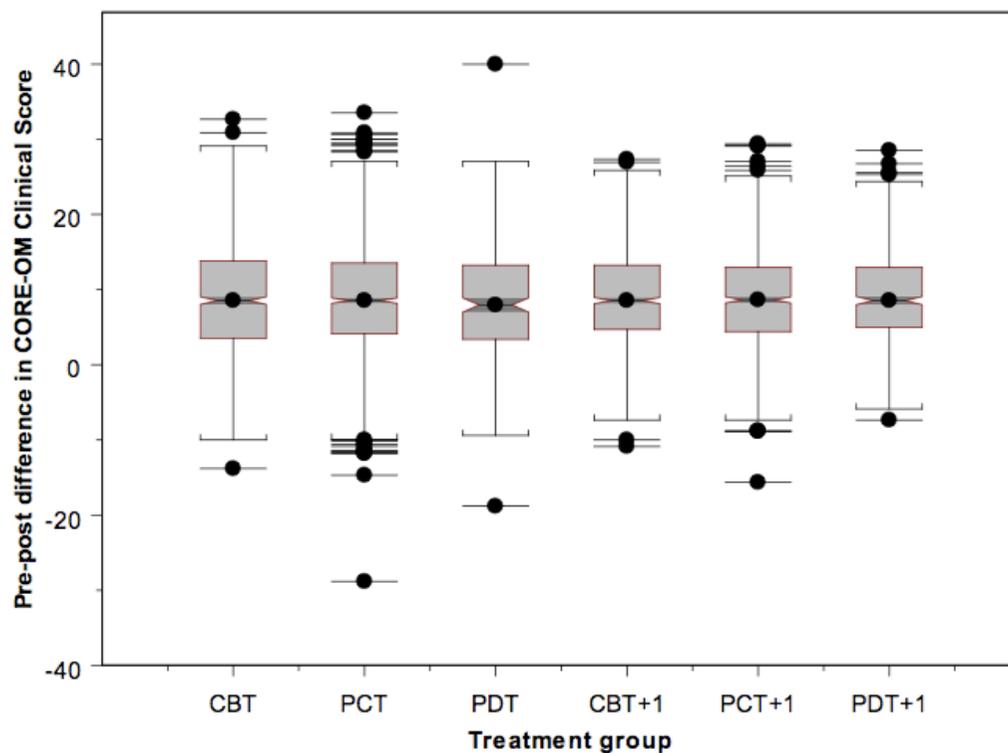




# Effectiveness of cognitive-behavioural, person-centred, and psychodynamic therapies in UK primary-care routine practice: replication in a larger sample

William B. Stiles<sup>1\*</sup>, Michael Barkham<sup>2</sup>, John Mellor-Clark<sup>3</sup> and Janice Connell<sup>4</sup>

Treatment group	<i>n</i>
CBT	1045
PCT	1709
PDT	261
CBT + 1	1035
PCT + 1	1033
PDT + 1	530



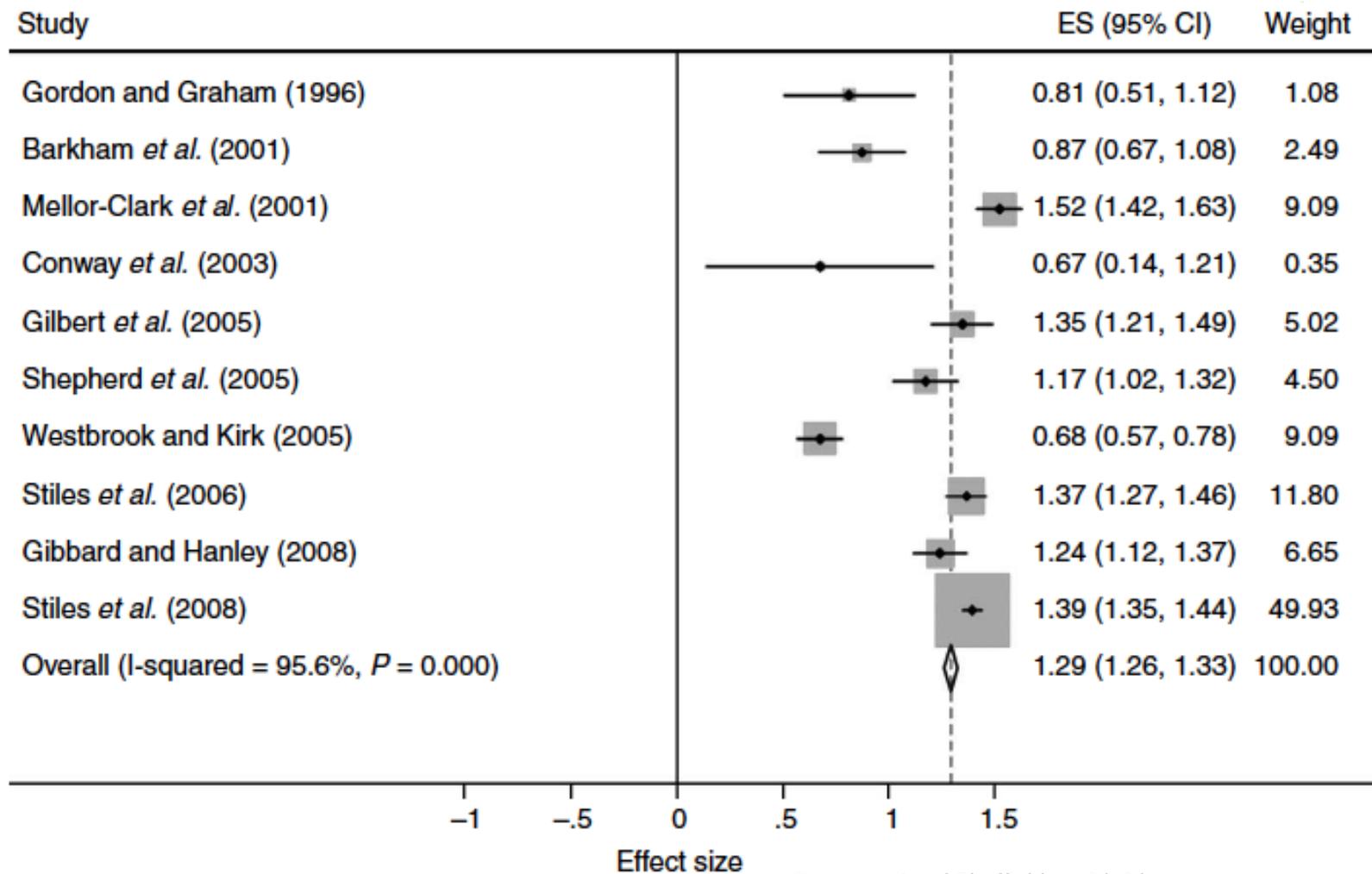
# Systematic review of practice-based research on psychological therapies in routine clinic settings

Jane Cahill<sup>1\*</sup>, Michael Barkham<sup>2</sup> and William B. Stiles<sup>3</sup>

<sup>1</sup>University of Leeds, Leeds, UK

<sup>2</sup>University of Sheffield, Sheffield, UK

<sup>3</sup>Miami University, Oxford, Ohio, USA





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## Practitioner effects



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# Evidence-Based Practice in Psychology

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APA Presidential Task Force on Evidence-Based Practice

May–June 2006 • American Psychologist

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Vol. 61, No. 4, 271–285 DOI: 10.1037/0003-066X.61.4.271

• Ronald F. Levant, EdD, Chair  
• Carol D. Goodheart, EdD, Co-chair  
• David H. Barlow, PhD  
• Karina W. Davidson, PhD  
• Jean Carter, PhD  
• Kristofer J. Hagglund, PhD  
• Steven D. Hollon, PhD  
• Frederick L. Newman, PhD  
• Josephine D. Johnson, PhD  
• John C. Norcross, PhD  
• Laura C. Leviton, PhD  
• Doris K. Silverman, PhD  
• Alvin R. Mahrer, PhD  
• Brian D. Smedley, PhD  
• Bruce E. Wampold, PhD  
• Brian T. Yates, PhD  
• Drew I. Westen, PhD  
• Nolan W. Zane, PhD

## ***Future Directions***

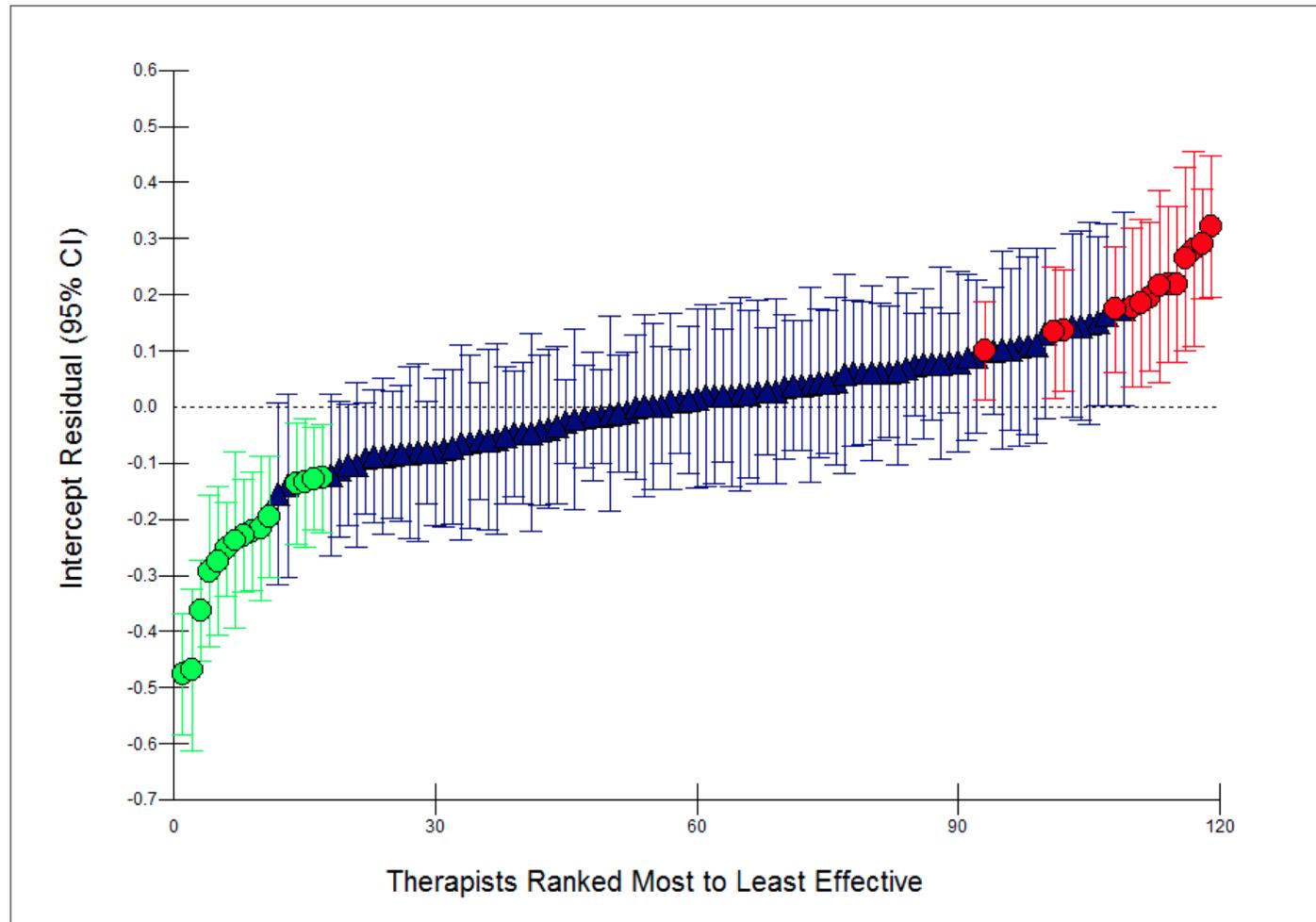
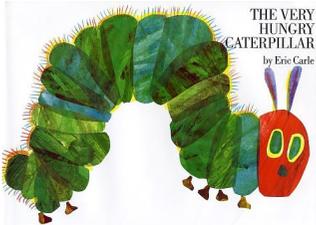
EBPP has important implications for research programs and funding priorities. These programs and priorities should emphasize research on the following:

- the development of models of treatment based on identification and observation of the practices of clinicians in the community who empirically obtain the most positive outcomes;



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► Caterpillar plots & therapist variability

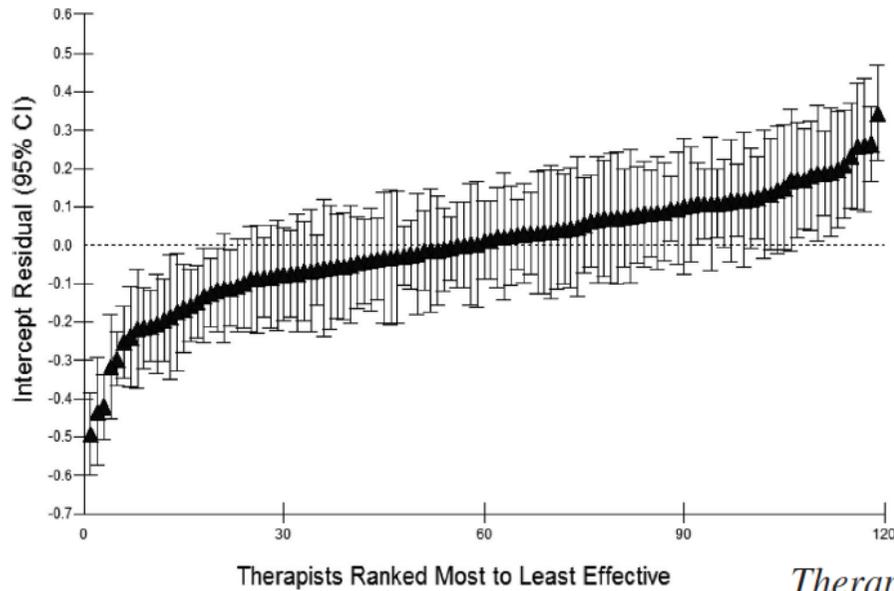


► Dave Saxon: [d.saxon@sheffield.ac.uk](mailto:d.saxon@sheffield.ac.uk)



# Patterns of Therapist Variability: Therapist Effects and the Contribution of Patient Severity and Risk

David Saxon and Michael Barkham  
University of Sheffield

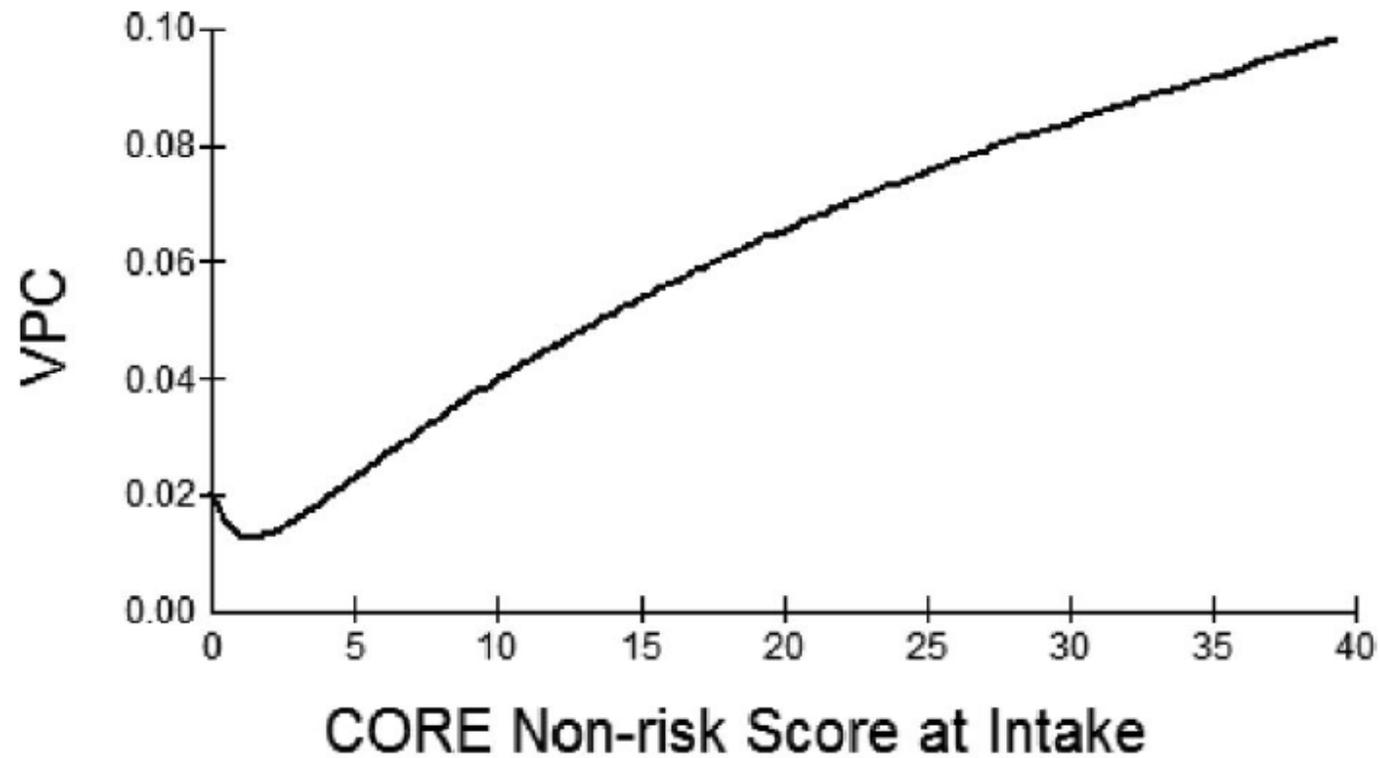


*Therapist Recovery Rates (Mean Percentage, Standard Deviation, and Range) for Each Group*

Variable	Group		
	Below average	Average	Above average
Therapists, <i>N</i>	19	79	21
<i>M</i> , % ( <i>SD</i> )	43.3 (10.2)	58.0 (10.1)	75.6 (9.5)
Range, %	23.5–58.6	29.2–79.6	62.0–95.6



- ▶ Therapist effects increase as a function of patient initial severity



## Effective practice & practitioners



▶ Jo-Ann Pereira: [jopereira150@gmail.com](mailto:jopereira150@gmail.com)

- ▶ Personal aspects (qualities) practitioners bring to their practice as people
- ▶ Investigating the role of practitioner *resilience*, *empathy*, and *mindfulness*
- ▶ Practitioners' descriptions:
- ▶ Empathy is key component for practitioners - they value the importance in having a capacity to understand patients' personal emotional experiences

## Effective practice & practitioners

- ▶ Investigating the role of practitioner resilience, empathy, and mindfulness
- ▶ Self-report measures of *Resilience, Empathy, & Mindfulness*
- ▶ Less effective practice rate empathy as a personal aspect higher than more effective practice
- ▶ But more effective practice rate resilience and mindfulness higher than less effective practice
- ▶ Personal aspects are differentially responsive to patient severity
- ▶ *Combined resilient & mindful practice*



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# **Chiasmus: Evidence-based practice & practice-based evidence**

A case study: Counselling & patient choice



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Psychology and Psychotherapy: Theory, Research and Practice (2008), 81, 399-417  
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www.bpsjournals.co.uk

## ▶ Evidence for the efficacy of counselling

### Balancing rigour and relevance in guideline development for depression: The case for comprehensive cohort studies

Michael Barkham\* and Glenys Parry

Centre for Psychological Services Research, University of Sheffield, Sheffield, UK



**NHS**  
National Institute for  
Health Research

### An evaluation of a new service model: Improving Access to Psychological Therapies demonstration sites 2006-2009

Glenys Parry<sup>1</sup>, Michael Barkham<sup>1</sup>, John Brazier<sup>1</sup>, Kim Dent-Brown<sup>1</sup>, Gillian Hardy<sup>1</sup>, Tony Kendrick<sup>2</sup>, Jo Rick<sup>3</sup>, Eleni Chambers<sup>1</sup>, Tom Chan<sup>4</sup>, Janice Connell<sup>1</sup>, Rebecca Hutten<sup>1</sup>, Simon de Lusignan<sup>5</sup>, Clara Mukuria<sup>1</sup>, Dave Saxon<sup>1</sup>, Peter Bower<sup>3</sup> and Karina Lovell<sup>3</sup>

<sup>1</sup> University of Sheffield

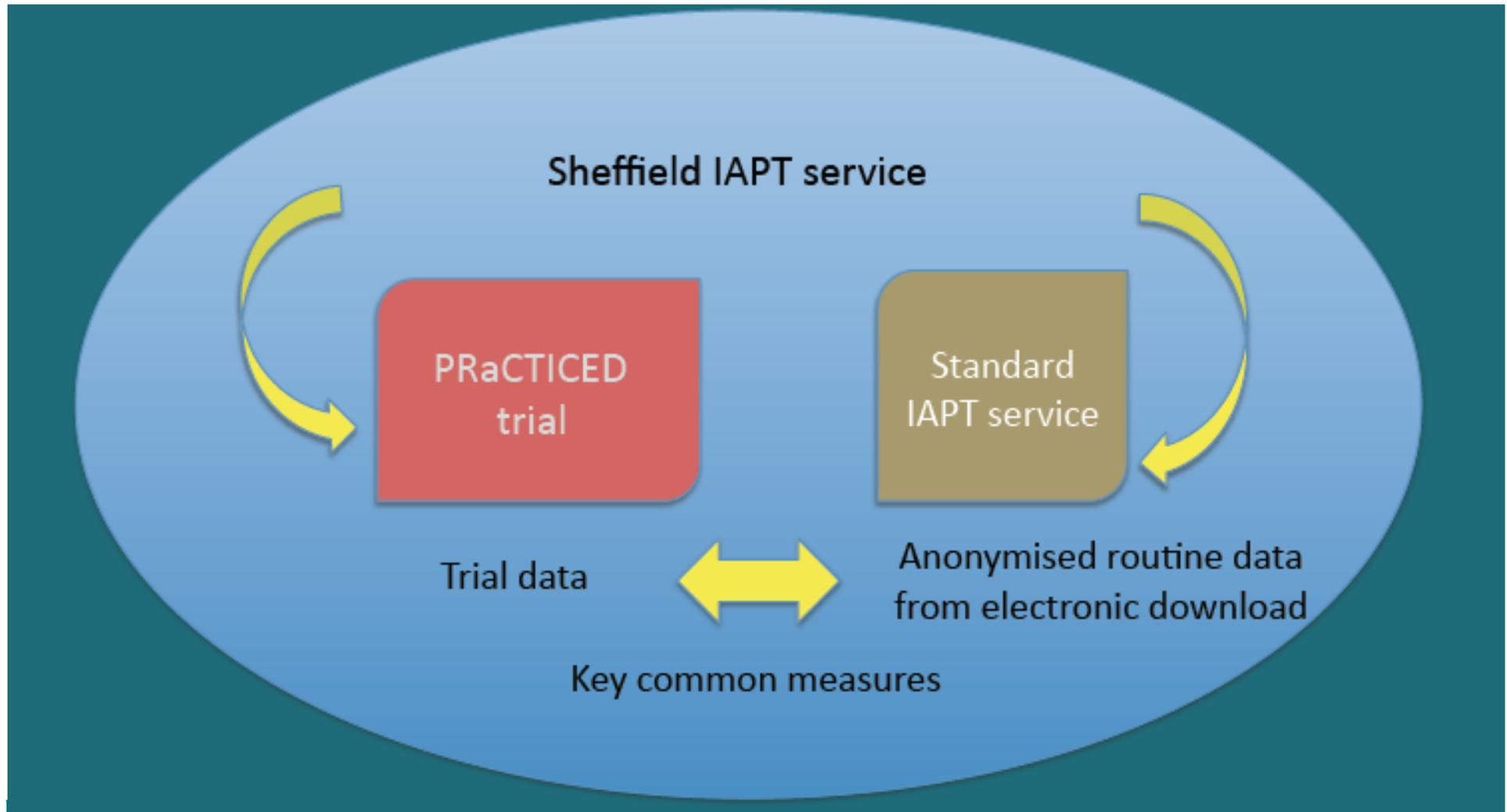
<sup>2</sup> Hull York Medical School, University of Hull

<sup>3</sup> University of Manchester

<sup>4</sup> St George's Medical School, University of London

<sup>5</sup> University of Surrey

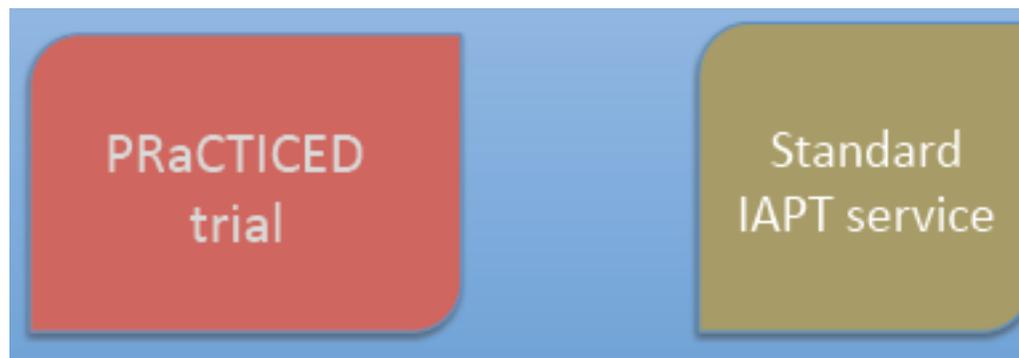
- ▶ Comprehensive cohort design:  
Trial nested within a routine service



- ▶ Counselling for depression vs. CBT
  - ▶ Funder: BACP Research Foundation

Sessional measures  
(PHQ-9, GAD-7, WSAS mandated)

Trial pre-  
measures



Trial post-  
measures

Caveats:

- ▶ Repetitive/symptom focus
- ▶ Value of missing data
- ▶ Potential mismatch between statistical recovery and reports of patients' lives as lived



- ▶ Practice-based methods are central for improving practice
- ▶ Place practitioners as central in integrating practice and science
- ▶ Practice-based evidence yields good enough science that is cost efficient – but there is an argument to be won about its acceptance
- ▶ Argument for combining both practice-based evidence and trials methodology in comprehensive cohort designs
- ▶ Investigation of practitioner variability will help inform us about what best practice is – from which we can all learn
- ▶ Improving access is good but need to engage and retain patients in treatment – dropout is the key issue to address