The effectiveness of tertiary care psychotherapy: A benchmarking study
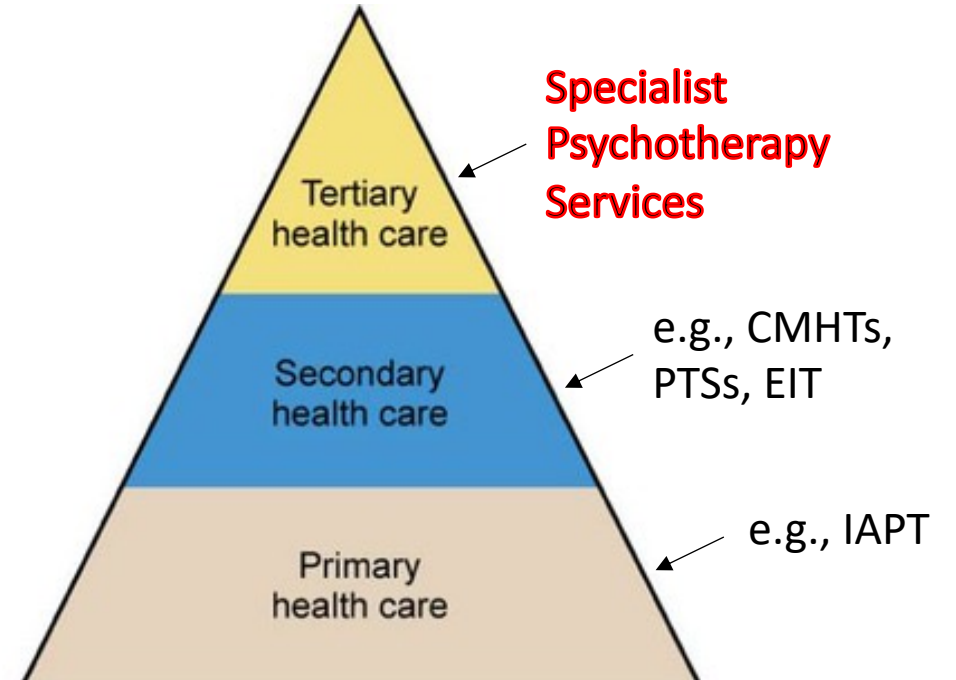
Chris Gaskell

Tertiary Care Services

- Specialist provision.
- Patients who have not previously responded.
- Low provision, high demand.
- <u>Very little</u> available evidence of effectiveness.

Specialist Psychotherapy Services

e.g., CMHTs, PTSs, EIT

e.g., IAPT

Tertiary health care

Secondary health care

Primary health care

The Current Study
(hereafter will be referred to as 'Evaluation')

- Data from a single UK tertiary care service.

- Outcome measure project (2010-present).

- Various forms of psychotherapy offered.
  - Psychoanalytic Psychotherapy
  - Cognitive-behavioural Psychotherapy
  - Cognitive-analytic Psychotherapy

- Self-report measure of effectiveness
  - Not systematic.

OQ-45

- Outcome-Questionnaire (OQ-45; Lambert 2004).

- Strong psychometric properties (Lambert et al., 1996; Vermeersch et al., 2000).

- Highly used in the US and mainland Europe, but not in the UK.

- Overall measure of psychological distress

Total distress scores

Symptom distress

Social Role

Interpersonal Relationships

Hypotheses

1. **That patients will present with high levels of distress.**

   Compare baseline distress levels to other OQ-45 studies.

2. **That treatment will be effective and comparable to other services.**

   Benchmarking Cohen's *d (*pre-post mean change) to other services.

   Benchmarking recovery rates to other services.

3. **There will be no sig difference between modalities (for effectiveness)?**

   As above between treatment groups.

4. **Change across sessions will be non-linear.**

   Longitudinal multi-level modelling.

5. **That very long treatments would not demonstrate greater effectiveness?**

   Compare groups based on number of sessions.

Evaluation

1000 patients enrolled

Pre-post analyses = 364

(2 measures, at least one treatment session)

- Cohen's d
- Benchmarking
- Recovery Rates
- Dose-response

Growth trajectories = 298

(3 measures, at least one treatment session)

- Growth Trajectories

Sample Characteristics

		CBT	CAT	PAT	Total	p-value
Patients	N	248	30	86	364	
Age	Mean	42.61	39.67	41.74	42.16	0.404
	SD	11.63	11.24	12.37	11.78	
	Range	18-74	21-61	17-73	17-74	
Baseline OQ-45 Severity	Total Mean	104.04	102.27	98.44	102.57	0.145
	Total SD	22.86	19.32	23.42	22.79	
	SD Mean	65.78	63.53	60.17	64.27	<0.05
	SR Mean	16.12	17.2	16.72	16.35	0.494
	IR Mean	22.58	22.73	21.97	22.45	0.757
Sessions in Care Period	Mean	45.58	28.83	64.56	48.68	<0.05
	SD	33.33	10.87	62.38	42.14	
Weeks in Care Period	Weeks	143.82	93.17	141.64	138.7	<0.05
	Range	16-382	41-162	28-425	16-425	
Gender	Female	145 (58.47%)	19 (63.33%)	57 (66.28%)	221 (60.71%)	0.422
	Male	103 (41.53%)	11 (36.67%)	29 (33.72%)	143 (39.29%)	
Ethnicity	White British	207 (83.47%)	26 (86.67%)	68 (79.07%)	301 (82.69%)	0.087
	Any other	11 (4.44%)	1 (3.33%)	3 (3.49%)	15 (4.12%)	
	Not Stated	12 (4.84%)	0 (0.00%)	3 (3.49%)	15 (4.12%)	
	Black	9 (3.63%)	2 (6.67%)	3 (3.49%)	14 (3.85%)	
	Asian	8 (3.23%)	0 (0.00%)	3 (3.49%)	11 (3.02%)	
	White Other	1 (0.40%)	1 (3.33%)	6 (6.98%)	8 (2.20%)	
Employment	Not Known/Other	92 (37.10%)	8 (26.67%)	32 (37.21%)	132 (36.26%)	<0.05
	Employed	55 (22.18%)	9 (30.00%)	33 (38.37%)	97 (26.65%)	
	Unemployed	53 (21.37%)	8 (26.67%)	7 (8.14%)	68 (18.68%)	
	Sick/Disabled	31 (12.50%)	3 (10.00%)	3 (3.49%)	37 (10.16%)	
	Student	14 (5.65%)	2 (6.67%)	7 (8.14%)	23 (6.32%)	
	Retired	3 (1.21%)	0 (0.00%)	4 (4.65%)	7 (1.92%)	
Marital Status	Married or Settled	99 (39.92%)	14 (46.67%)	32 (37.21%)	145 (39.84%)	0.661
	Single	96 (38.71%)	12 (40.00%)	33 (38.37%)	141 (38.74%)	
	Other	37 (14.92%)	1 (3.33%)	15 (17.44%)	53 (14.56%)	
	Divorsed/Seperated	16 (6.45%)	3 (10.00%)	6 (6.98%)	25 (6.87%)	

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Benchmarking

Benchmark	N	D
Total OQ–45 Score		
Tertiary benchmark	412	0.91
OQ–45 benchmark	12263	0.58
SPS service (current study)	364	0.46
CBT sub–sample (SPS)	248	0.45
CAT sub–sample (SPS)	30	0.64
PAT sub–sample (SPS)	86	0.45
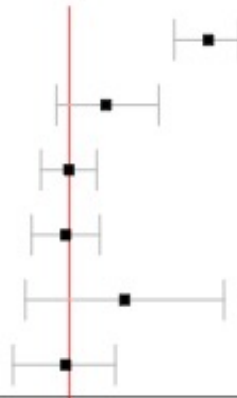
Symptom Distress subscale		
SPS service (current study)	364	0.48
CBT sub–sample (SPS)	248	0.45
CAT sub–sample (SPS)	30	0.71
PAT sub–sample (SPS)	86	0.51
Social Role subscale		
SPS service (current study)	364	0.36
CBT sub–sample (SPS)	248	0.35
CAT sub–sample (SPS)	30	0.65
PAT sub–sample (SPS)	86	0.29
Interpersonal subscale		
SPS service (current study)	364	0.29
CBT sub–sample (SPS)	248	0.3
CAT sub–sample (SPS)	30	0.34
PAT sub–sample (SPS)	86	0.25

Standarised Mean Difference
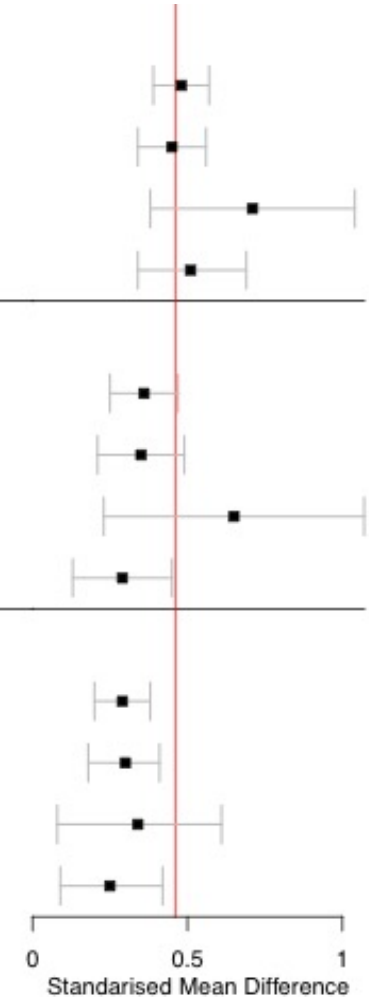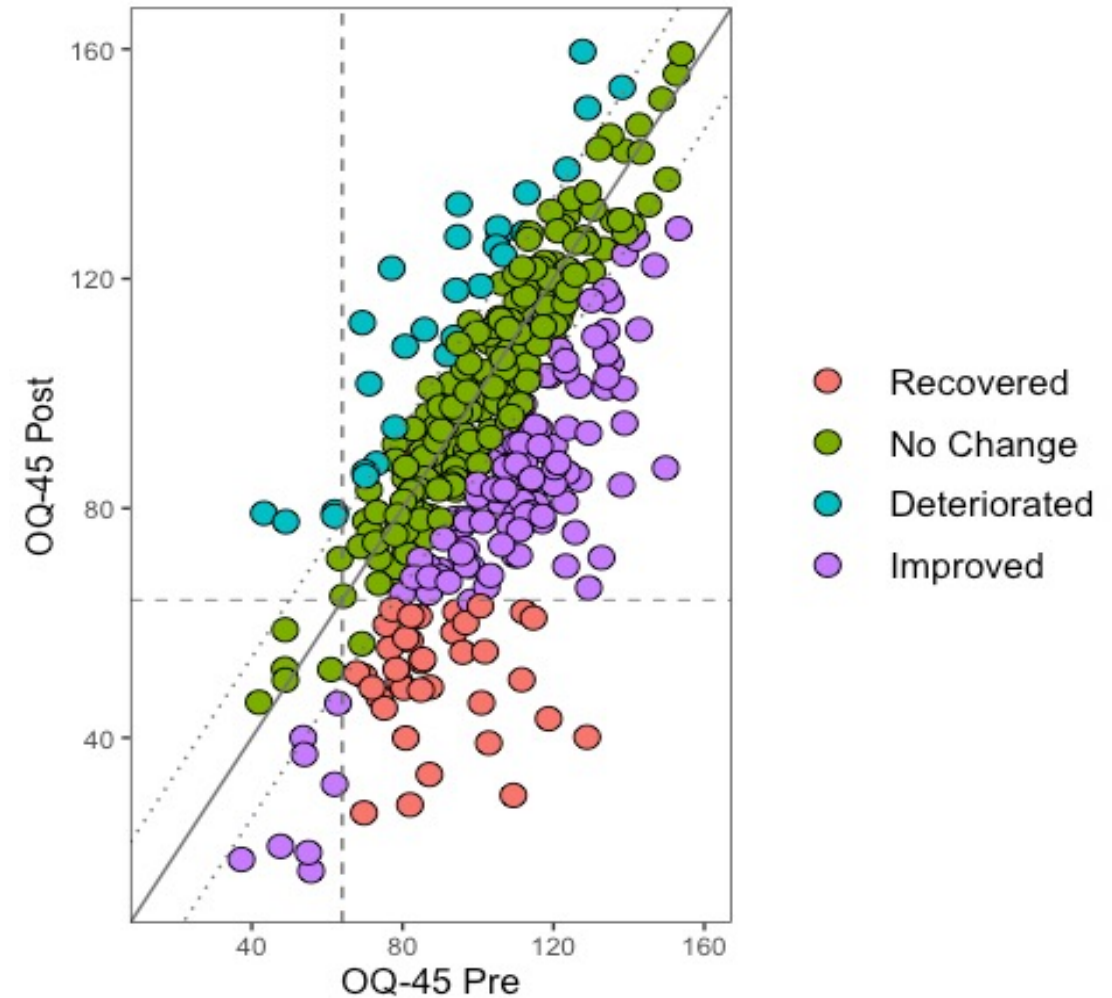
Recovery Status

Table 2

Rates of reliable change, recovery and deterioration for the current study sample and for selected bencmarks (Hansen and Lambert 2002).

Study		Recovered	No Change	Deterioration	Improved	Total
Hansen (2002)	Total	681 (14.3%)	2709 (56.9%)	377 (7.9%)	994 (20.9%)	4761
	CMHC	31 (8.6%)	219 (60.6%)	37 (10.2%)	74 (20.5%)	361
SPS	Total	37 (10.16%)	189 (51.92%)	29 (7.97%)	109 (29.95%)	364
	CBT	22 (8.87%)	128 (51.61%)	23 (9.27%)	75 (30.24%)	248
	PDT	11 (12.79%)	46 (53.49%)	4 (4.65%)	25 (29.07%)	86
	CAT	4 (13.33%)	15 (50.00%)	2 (6.67%)	9 (30.00%)	30

Note.   18 patients fell within in the non-clinical range at baseline.   No change = no reliable changes

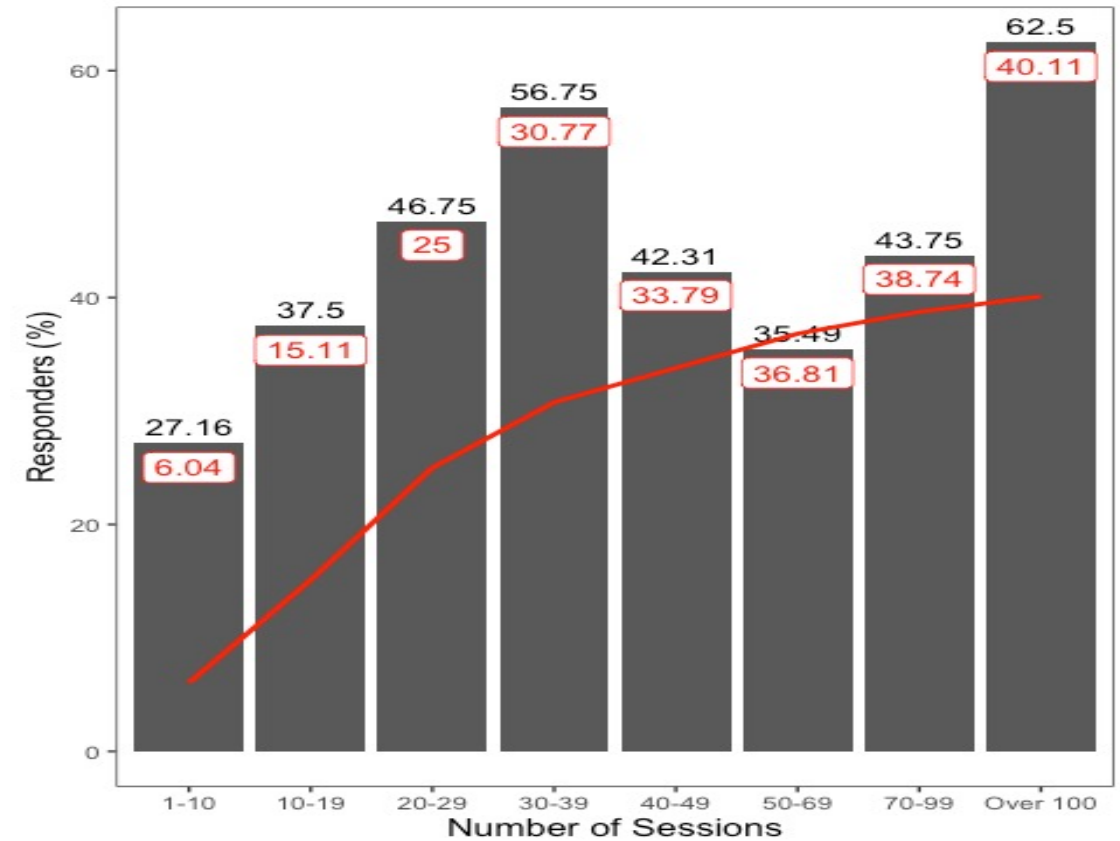Improved = Reliable Improvement   Deterioration = reliable Deterioration

Dose Response

Table 3

Non-cumulative, diffential rates of statistical and clinical change based on different dosage groups.

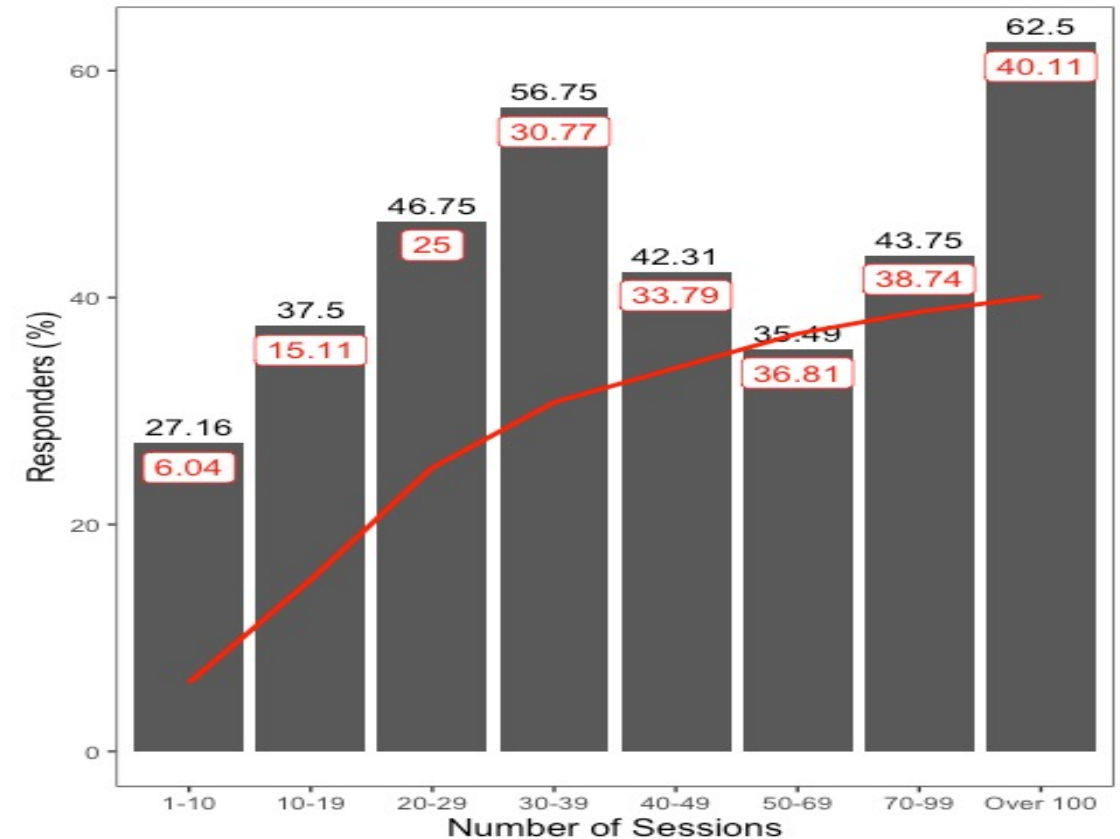| sessiongroup	n	d	ci	Recovered	No Change	Deteriorated	Improved
1-10	81	0.15	-0.04-0.35	4 (4.94%)	50 (61.73%)	9 (11.11%)	18 (22.22%)
10-19	88	0.51	0.31-0.71	8 (9.09%)	48 (54.55%)	7 (7.95%)	25 (28.41%)
20-29	77	0.63	0.41-0.85	14 (18.18%)	32 (41.56%)	9 (11.69%)	22 (28.57%)
30-39	37	0.94	0.58-1.3	5 (13.51%)	16 (43.24%)	0 (0.00%)	16 (43.24%)
40-49	26	0.54	0.17-0.91	0 (0.00%)	14 (53.85%)	1 (3.85%)	11 (42.31%)
50-69	31	0.25	-0.07-0.57	3 (9.68%)	18 (58.06%)	2 (6.45%)	8 (25.81%)
70-99	16	0.67	0.17-1.16	1 (6.25%)	9 (56.25%)	0 (0.00%)	6 (37.50%)
Over 100	8	0.46	-0.2-1.12	2 (25.00%)	2 (25.00%)	1 (12.50%)	3 (37.50%)

Dose Response

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*Non-cumulative, diffential rates of statistical and clinical change based on different dosage groups.*

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10-19	88	0.51	0.31-0.71	8 (9.09%)	48 (54.55%)	7 (7.95%)	25 (28.41%)
20-29	77	0.63	0.41-0.85	14 (18.18%)	32 (41.56%)	9 (11.69%)	22 (28.57%)
30-39	37	0.94	0.58-1.3	5 (13.51%)	16 (43.24%)	0 (0.00%)	16 (43.24%)
40-49	26	0.54	0.17-0.91	0 (0.00%)	14 (53.85%)	1 (3.85%)	11 (42.31%)
50-69	31	0.25	-0.07-0.57	3 (9.68%)	18 (58.06%)	2 (6.45%)	8 (25.81%)
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Trajectories of Change

Trajectories of Change

Cubic Trends
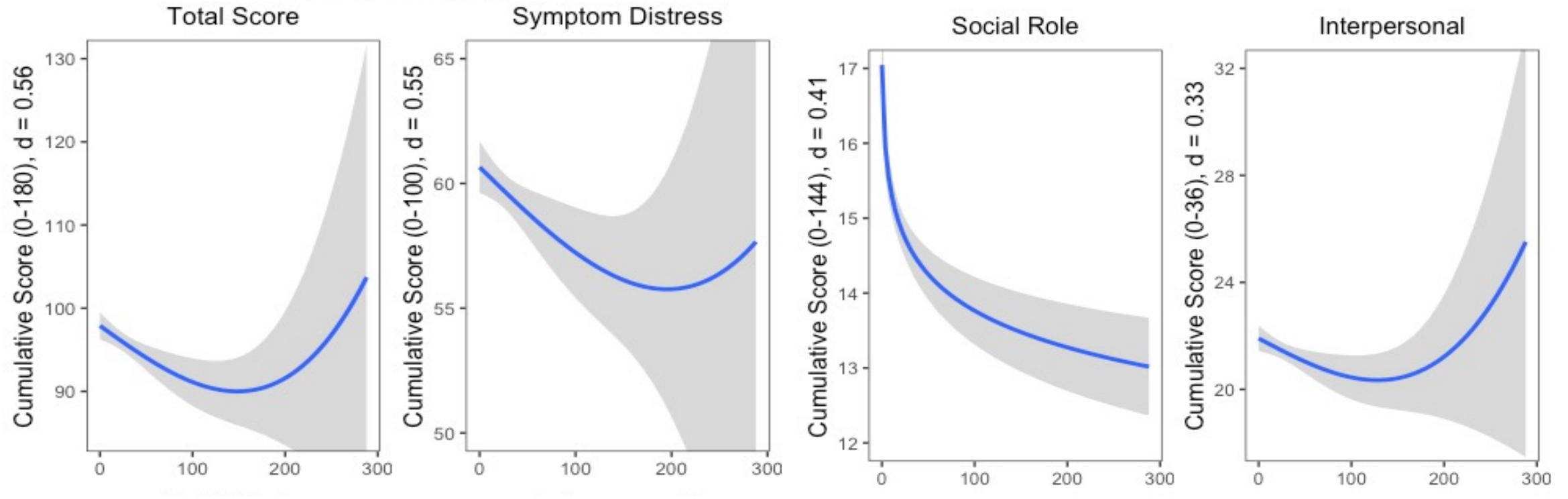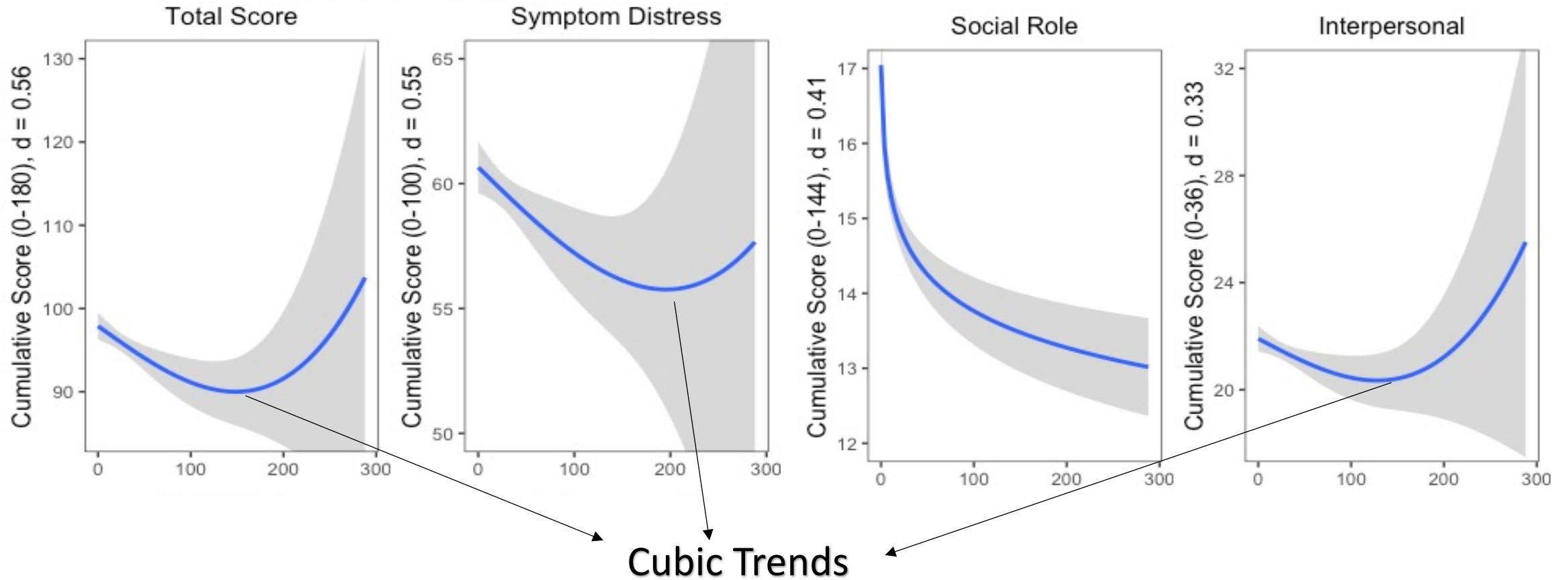
- People get worse after approx. 150 sessions?
- The people left in treatment after 150 sessions have high distress and aren't getting better.

Trajectories of Change
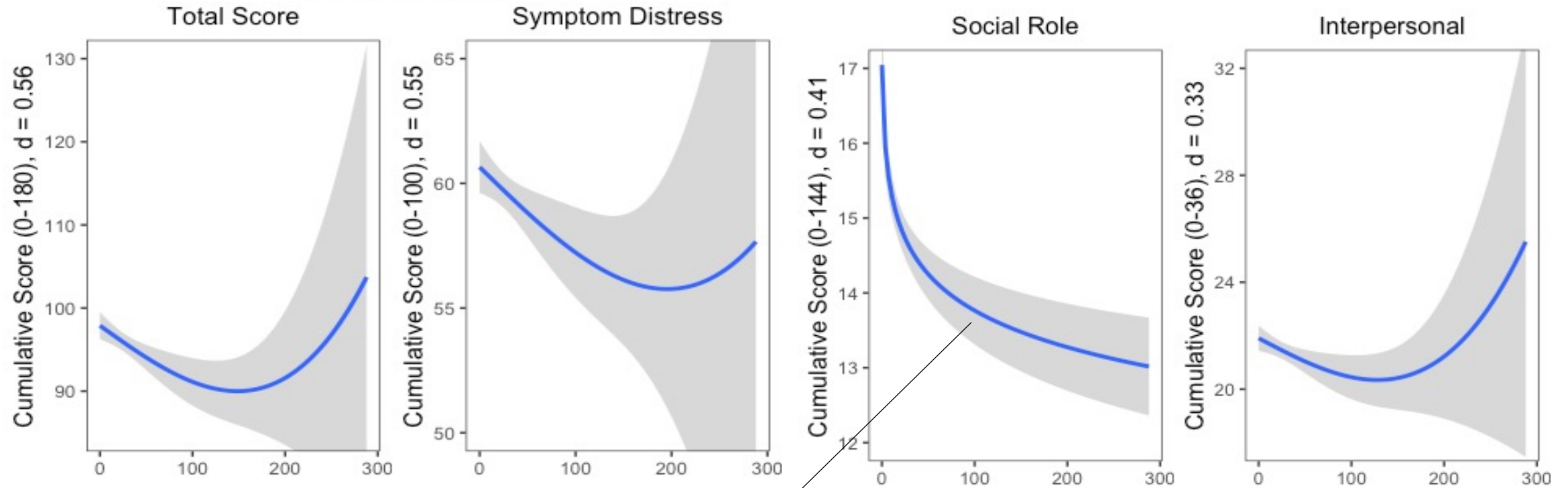
Log-linear Trend
- Negatively accelerating changes.

Trajectories of Change

Table 4

Fixed effects and goodness-of-fit statistics for optimal unconditional and final conditional models for the OQ-45 and each of the three sub-scales

	Total Score		Symptom Distress		Social Role		Inter-Personal	
	OQ Cubic	OQ Cond.	SD Log	SD Cond.	SR Log	SR Cond.	IR Quad	IR Cond.
Fixed Effects								
Intercept	104.180*	105.453*	64.725*	65.403*	17.668*	17.847*	22.973*	23.151*
	(1.497)	(1.693)	(0.962)	(1.246)	(0.407)	(0.515)	(0.434)	(0.496)
Linear/Log	-0.496*	-0.494*	-0.293*	-0.275*	-0.949*	-1.021*	-0.103*	-0.102*
	(0.057)	(0.058)	(0.036)	(0.070)	(0.129)	(0.165)	(0.017)	(0.017)
Quadratic	0.005*	0.005*	0.003*	0.003*			0.001*	0.001*
	(0.001)	(0.001)	(0.000)	(0.001)			(0.000)	(0.000)
Cubic	-0.000*	-0.000*	-0.000*	-0.000*			-0.000*	-0.000*
	(0.000)	(0.000)	(0.000)	(0.000)			(0.000)	(0.000)
Analytic		-3.102		-1.107		-0.425		-0.424
		(2.134)		(1.641)		(0.768)		(0.634)
Goodness of fit								
AIC	17216.0	17211.7	15199.3	15193.4	12110.7	12114.2	12166.7	12168.6
BIC	17261.2	17268.2	15244.5	15255.6	12144.6	12159.4	12211.9	12225.1
Log-Likelihood	-8599.99	-8595.87	-7591.66	-7585.72	-6049.34	-6049.08	-6075.34	-6074.32
p value		0.016		0.008		0.774		0.362

* $p < 0.05$

Summary of Findings

- High levels of baseline distress
- Therapy is effective but only a small effect.
  - Is it suppressed by non-responders?
- Recovery rates are low (but comparable to CMHC).
- No differences between treatments (effectiveness).
- Change is non-linear (mainly cubic).
- Very short treatments (1-10 sessions) show very little change.

Implications

- Support for service remit
  - Work with high distress
  - Short treatments less effective
- Some patients stay in treatment for a very long time but show limited change.
- Regularly monitoring outcomes could inform treatment decisions.
- Limited support for one treatment over another.

Limitations & Future Opportunities

No control group   -> RCT

Not systematic   -> Session-by-session monitoring.

Self report only   -> Other measures (self, clinician, utilisation).

US norms   -> UK OQ-45 validation study.

No fidelity checks   -> use them.

Durability unknown -> Follow-up data

Solely quantitative   -> qual!

Unknown concurrent treatments -> enquire & record

<u>More UK tertiary care studies!</u>