THE EFFECTIVENESS OF HUMANISTIC-EXPERIENTIAL PSYCHOTHERAPIES: A META-ANALYSIS UPDATE

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AIM

- This is an update of a large previous meta-analysis of outcome research on humanistic-experiential psychotherapies (HEPs)
- Covering the period 2009-2018
- Using current meta-analysis techniques

Chapter to appear in…

- Elliott, R., Watson, J., Timulak, L., & Sharbanee, J. (in press). Research on Humanistic-Experiential Psychotherapies. To appear in M. Barkham, W. Lutz, & L Castonguay (eds.). *Garfield & Bergin's Handbook of Psychotherapy & Behavior Change* (7th ed.). New York: Wiley.

Humanistic-Experiential Psychotherapy Meta-Analysis Project

- 1992-93: Greenberg, Lietaer & Elliott invited to contribute a chapter on humanistic-experiential psychotherapies (HEPs) for Bergin & Garfield's *Handbook of Psychotherapy & Behavior Change*
- Undertook a meta-analysis of all research on HEPs
- Most recent versions:
  - *Cumulative analysis: Elliott, Watson, Greenberg, Timulak & Freire, 2013: 1948 – 2008*
  - *This update: Elliott, Sharbanee, Watson & Timulak, in press: 2009 – 2018*

HEP Meta-Analysis Project Generations

Authors	Pub. Year	Years reviewed	N HEP studies
1. Greenberg, Elliott & Lietaer (individual therapy only)	1994	1974 - 1992	37
2. Elliott	1996	1947 - 1994	63
3. Elliott	2002	1947 - 1999	86
4. Elliott, Greenberg & Lietaer	2004	1947 - 2002	112
5. Elliott & Freire (published 2013 as Elliott et al.)	2013	1947 - 2008	191
6. Elliott, Watson, Timulak & Sharbanee	**2021**	**2008 - 2018**	**+91**

DESIGN

- Systematic, inclusive quantitative meta-analysis strategy
- Three main lines of quantitative outcome evidence:
  - *(1) pre-post effects (= effectiveness studies)*
  - *(2) controlled effects vs. no-treatment controls (=efficacy studies)*
  - *(3) comparative studies vs non-HEPs (especially CBT)*
- Look for convergence/divergence among lines of evidence

DESIGN

- Used contemporary meta-analysis methods:
  - *Independent judges for final selection of studies*
  - *Audited all study analyses*
  - *Constructed a PRISMA diagram tracking our screening of studies*
  - *Looked at both completer and intent-to-treatment designs*
  - *Focused on primary outcome measures*
  - *Weighted effects by inverse error*
  - *Used random effects models and restricted maximum likelihood analyses*
  - *Looked at both main and moderator variable effects*
- Results compared to our previous meta-analysis (Elliott et al., 2013) covering nearly 200 outcome studies from 1948 – 2008.

Inclusion Criteria

- Exhaustive search: attempted to find all existing studies:
  - *Therapy must be labeled as Client-/Person-centred, (Process)Experiential/Emotion-Focused, Focusing, or Gestalt; or described explicitly as empathic and/or centering on client experience*
  - *2+ sessions*
  - *10+ clients (2019: 2008: to 5+ clients)*
  - *Adults or adolescents (12+ years)*
  - *Effect size (Cohen´s d) could be calculated*

Measuring Effect Size

- Standardised Mean Difference (SMD)
- Also known as Cohen's d

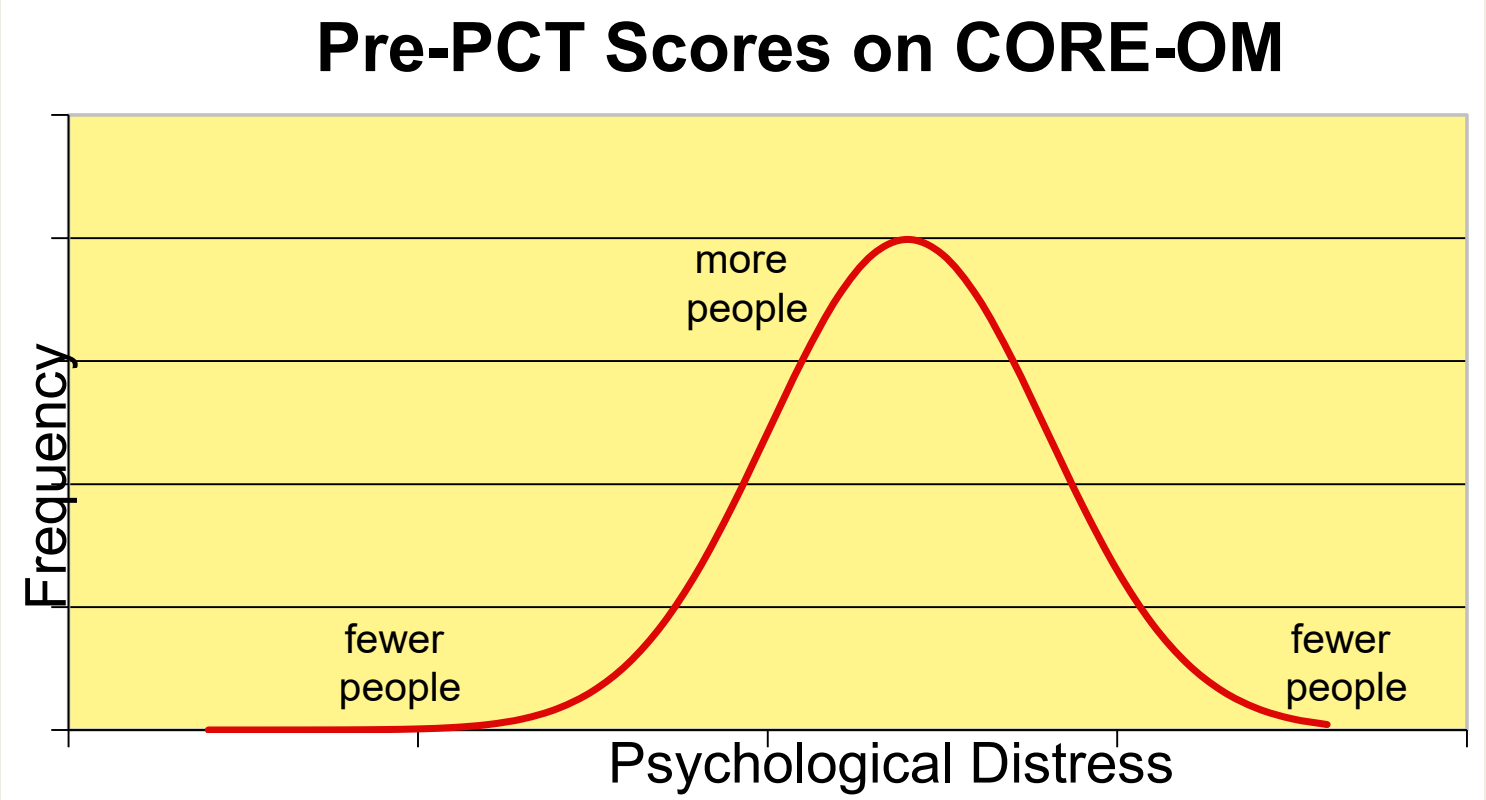
Measuring Effect Size (ES)

$$\text{Change E.S.} = \frac{m_{pre} - m_{post}}{sd_{(pooled)}}$$

- This stuff is algebra …
  - That means when you use letters to stand for numbers
  - The letters are called "variables", because they vary…
  - This is useful because we can use them to stand for lots of different numbers
- Change ES = Pre-post Effect size
- M = mean/average of pre or post scores
- SD = averaged ("pooled") standard deviation

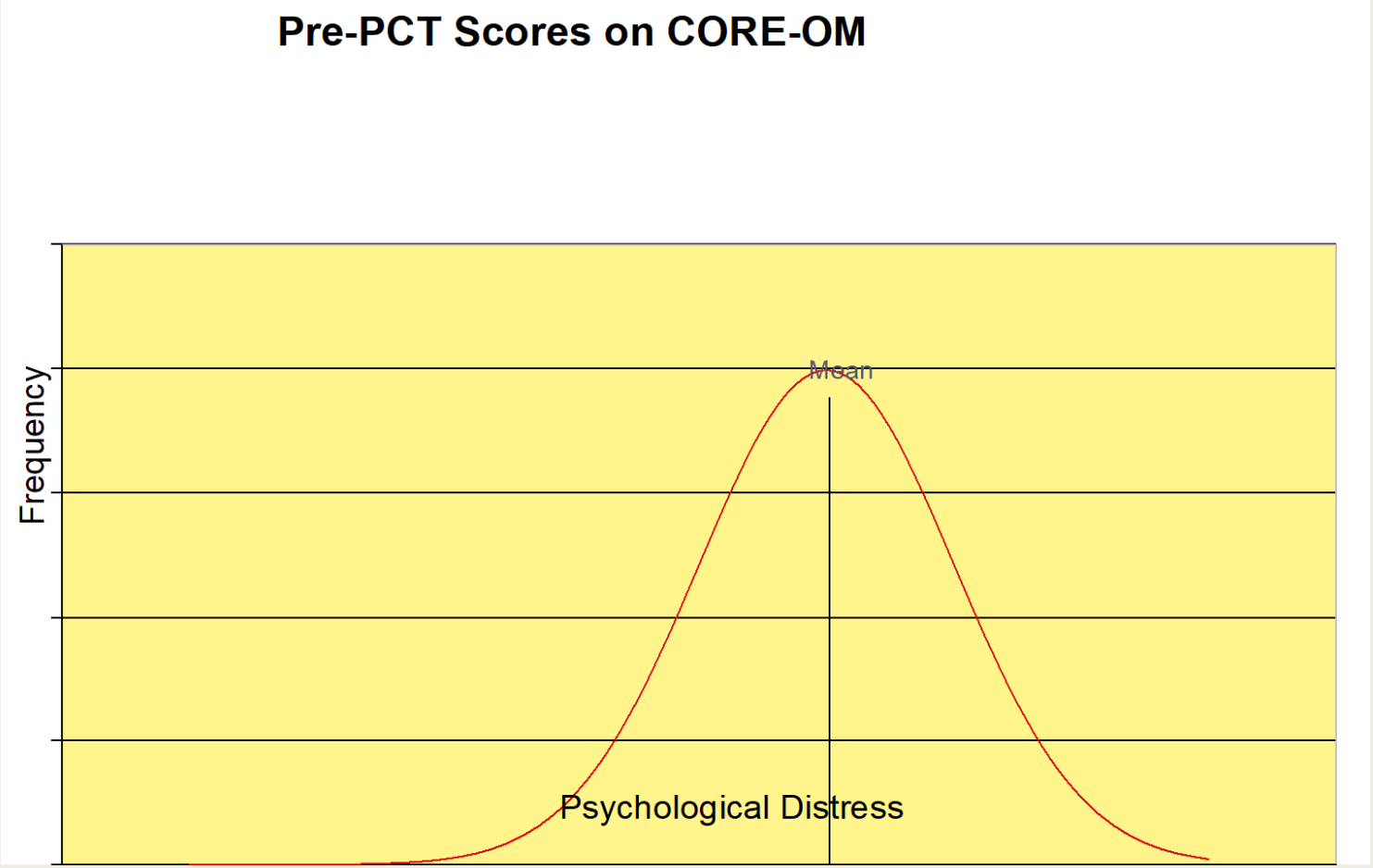
What is a “Standard Deviation”?

- 1. Start with distribution of people’s scores:



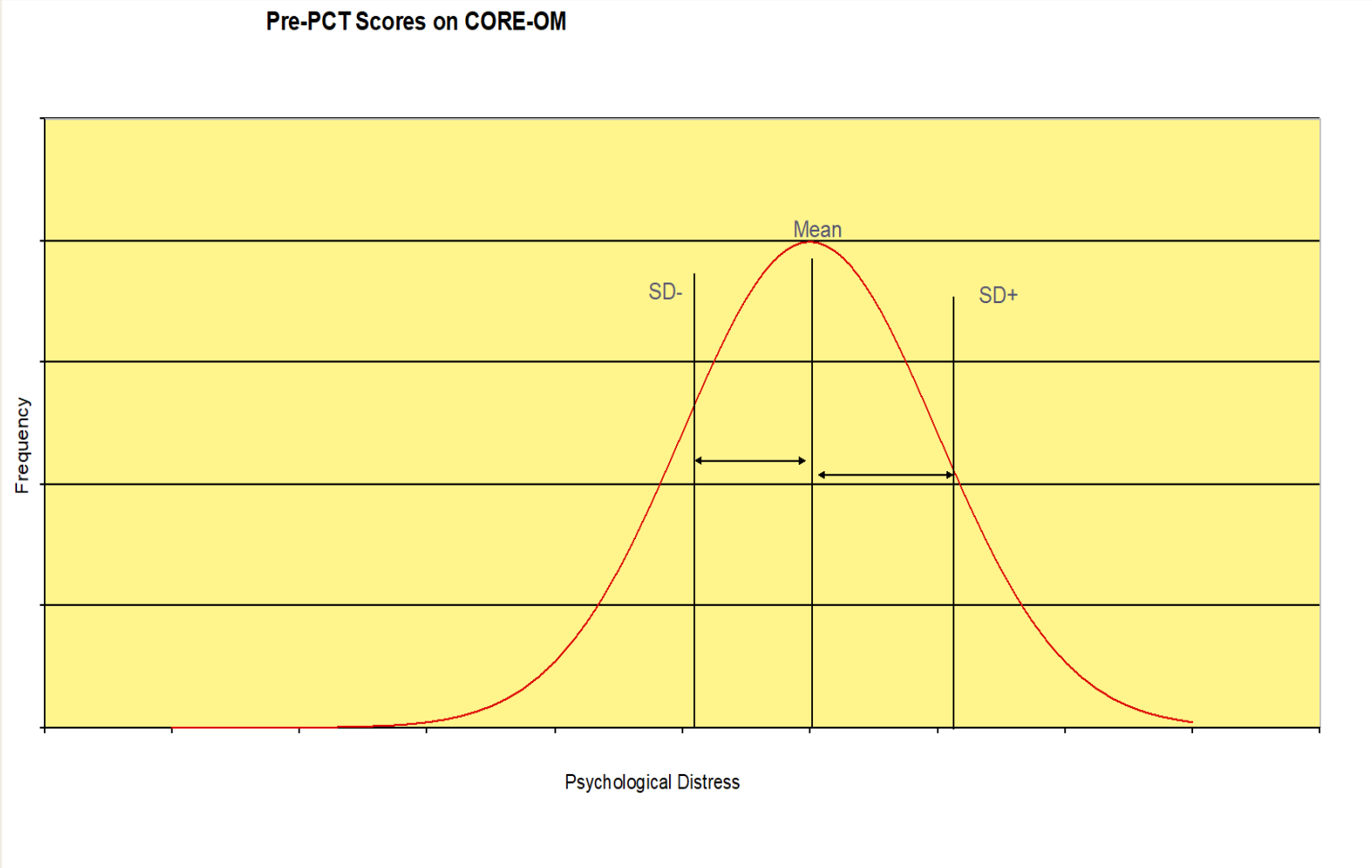
What is a “Standard Deviation”?

- 2. Mean: Find the average score/person:



What is a "Standard Deviation"?

- 3. SD: Find the average distance from the mean
  - *"Standard" = "average"; "deviation" = difference/distance*



The Meaning of "Standard Deviations"

- … Provides a **ruler** for comparing studies using different measures
- … Is a **person-centred** number:
  - *It makes a special place for people to be different from each other*
- … Tells us how **dodgy** the mean is:
  - *Small SD = mean does a **good** job describing the people as a group*
  - *Large SD = mean does a **bad** job describing the people as a group*
- The larger the standard deviation, the more important **individual differences** are

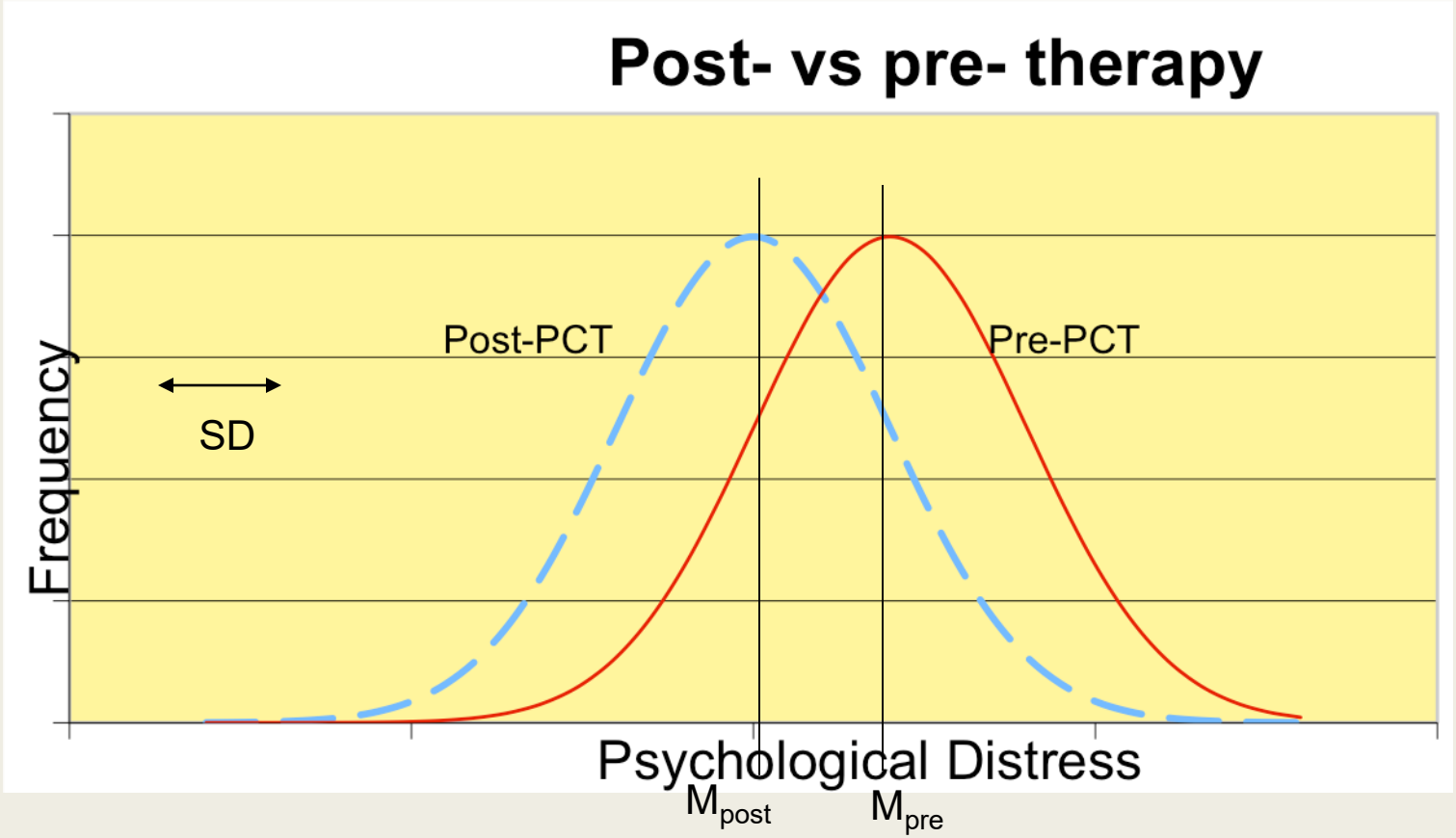
Effect Size (ES) formula again:

$$\text{Change E.S.} = \frac{m_{pre} - m_{post}}{sd_{(pooled)}}$$

- Allows use of largest number of studies
- Averaged across subscales within measures; then across measures; then across assessment periods
- Used special form of ES: Hedge's *g* for pre-post differences
  - more conservative, controls for small sample bias

Visual Depiction of Pre-Post ES:

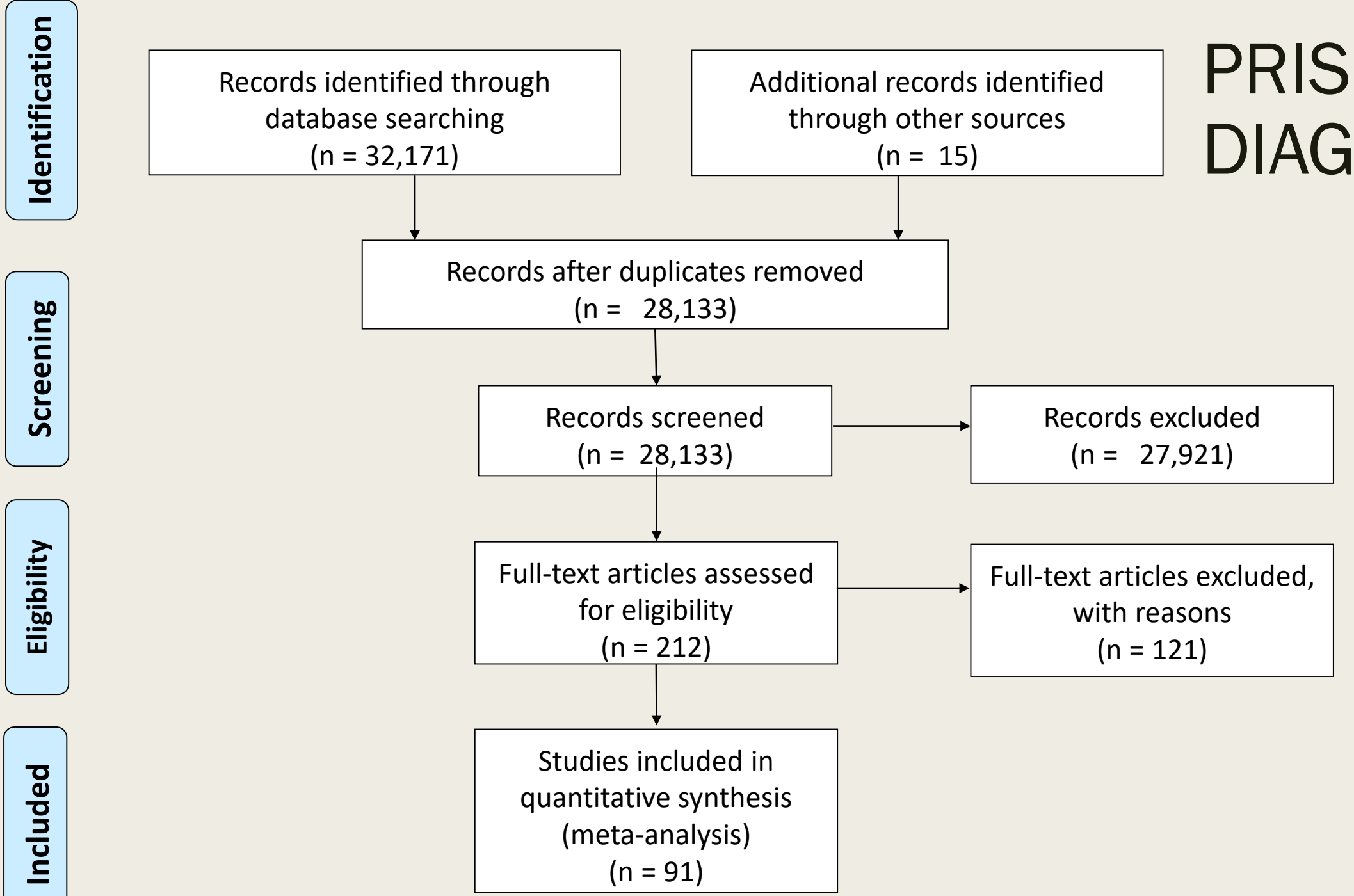
Compare Mean Pre-test vs Post-test and express in SD units



Interpreting Effect Sizes (SD units)

	1.0
	0.9
LARGE	**0.8**
	0.7
	0.6
MEDIUM	**0.5**
	0.4
	0.3
SMALL	**0.2**
	0.1
	0.0

PRISMA DIAGRAM



Type of HEP

(Pre-post effects)	2008 Frequency (%)	**2019 Frequency (%)**
Person-Centred Therapy (PCT)	82 (40%)	**19 (21%)**
Supportive-Nondirective (SNT)	33 (17%)	**30 (33%)**
Emotion-Focused Therapy (EFT)	34 (17%)	**18 (20%)**
Gestalt/Psychodrama	43 (21%)	**17 (19%)**
Other Experiential (eg, supportive-expressive group therapy)	10 (5%)	**11 (12%)**

Study Characteristics

	2008	**2019**
Length of Therapy (sessions) *(pre-post effects)*	M (mean or average) = 20; Median = 12 Range = 2 - 124	M = 11.3 sessions Median = 10 Range = 4 - 67
Sample Size (clients) *(pre-post effects)*	M = 70; Median = 22 Range = 5 - 2742	M = 79; Median = 25 Range = 7 - 3003
Pro-PCE Researcher Allegiance	Pre-post effects: 87% Comparative effects: 31%	Pre-post effects: 60% Comparative effects: 35%
Non bona fide (i.e., *placebo*)	Pre-post: 13% Comparative: 19%	--

First Line of Evidence: Overall Pre-Post Effect Sizes (Hedges' g): 2019 Results: Per protocol primary outcomes

ASSESSMENT POINT	N Studies	N Clients	Mean ES	Standard error of mean ES*
Post	91	6842	**.86**	.06
Early Follow-up (< 12 months)	41	2161	**.88**	.11
Late Follow-up (12+ months)	15	599	**.92**	.20
Overall:				
Weighted	94	7558	**.86**	.06

*Standard error of mean = how dodgy the mean ES is; the smaller the better!

First Line of Evidence: Overall Pre-Post Effect Sizes (Hedges' g): 2008 Results: All Outcomes

ASSESSMENT POINT	N	Mean ES	Standard error of mean ES
Post	185	**.95**	.05
Early Follow-up (< 12 months)	77	**1.05**	.07
Late Follow-up (12+ months)	52	**1.11**	.09
Overall:			
Unweighted	199	**.96**	.04
Weighted	199	**.93**	.04

Methods for Controlled & Comparative Study Analyses

- Calculate difference in pre-post ES between:
  - *HEP, and*
  - *No-treatment control or non-HEP treatment*
- Coded effects:
  - *+: HEP better outcome*
  - *-: HEP worse outcome*
- Allows "equivalence analysis" to support no difference findings

Second Line of Evidence: Are HEPs More Effective Than No Therapy?

- Use to infer causality: Do HEPs cause clients to change?
- Better: Do clients use HEPs to cause themselves to change?

2019 Results: Controlled Effect Sizes (vs. waitlist or untreated clients)

	N Studies	N Clients	Mean ES	Standard error of mean
Untreated clients pre-post ES	*20*	***648***	***.09***	*.06*
Controlled:				
Weighted	21	**1519**	**.88**	.16
Weighted, RCTs only	14	**848**	**.98**	.24

2008 Results: Controlled Effect Sizes (vs. waitlist or untreated clients)

	N	Mean ES	Standard error of mean
Untreated clients pre-post ES	*53*	***.19***	*.04*
Controlled: Unweighted	62	**.81**	.08
Weighted by N	62	**.76**	.06
Weighted, RCTs only	31	**.76**	.10

Interpreting Effect Sizes (SD units)

	1.0
	0.9
LARGE	**0.8**
	0.7
	0.6
MEDIUM	**0.5**
	0.4
	0.3
SMALL	**0.2**
	0.1
	0.0

Third Line of Evidence: Are Other Therapies More Effective than HEPs?

- Note: Most people in our culture assume that CBT is more effective than other therapies, including HEPs.
- Is this true or is it a myth?

2019 Results: Comparative Effect Sizes (vs. non-HEPs)

	N Studies	N Clients	Mean ES	Standard error of mean
Weighted by N	63	**16266**	**-.08**	.06
Weighted, RCTs only	56	**6931**	**-.07**	.07

2008 Results: Comparative Effect Sizes (vs. non-HEPs)

	N Studies	N Clients	Mean ES	Standard error of mean
Unweighted	135	**6097**	**-.02**	.05
Weighted by N	135	**6097**	**.01**	.03
Weighted, RCTs only	113	**--**	**-.01**	.04

2019 Equivalence Analyses

Comparison	N Studies	N Clients	Mean Comp ES	Stand err of mean	Result
HEP vs. non-CBT	27	2481	.19	0.12	Trivially Better
HEP vs. CBT	36	13,785	-.26	0.06	Equivocally Worse
SNT vs. CBT	23	--	-0.28	0.06	Equivocally worse
PCT vs. CBT	10		-0.30	0.13	Equivocally Worse

2008 Equivalence Analyses

Comparison	N	Mean Comp ES	Stand err of mean	Result
HEP vs. non-HEP	135	0.01	0.03	Equivalent
HEP vs. non-CBT	59	0.17	0.05	Trivially better
HEP vs. CBT	76	-0.13	0.04	Trivially Worse
SNT vs. CBT	37	-0.27	0.07	Equivocally worse
PCT vs. CBT	22	-0.06	0.02	Equivalent
EFT vs. CBT	6	0.53	0.2	Better
Other HEP vs. CBT	10	-0.17	0.1	Trivially Worse

2019: What Client Problems Do HEPs do Best and Worst With?

Problem	Pre-Post		Controlled		Comparative	
	n	Mean ES	n	Mean ES	n	Mean ES
Relationship/ Interpersonal/ Trauma	27	1.13*	8	1.26*	12	-.10(=)
Depression	30	.96*	3	.51*	25	-.20*(=)
Psychosis	5	.71	0	--	6	.16
Medical/ physical	28	.69*	5	.48	26	-.07(=)
Habit/sub-stance misuse	8	1.00*	1	.53	8	.09
Anxiety	26	.94*	3	.93*	19	-.34*(-)
Total Sample	94	.86*	21	.88*	63	-.08(=)

2008: What Client Problems Do HEPs do Best and Worst With?

Problem	Pre-Post		Controlled		Comparative	
	n	Mean ES	n	Mean ES	n	Mean ES
Relationship/ Interpersonal/ Trauma	23	1.27(+)	11	1.39(+)	15	.34(+)
Depression	34	1.23(+)	8	.42	37	-.02
Psychosis	6	1.08	0	--	6	.39(+)
Medical/ physical	25	.57(-)	6	.52	24	-.00
Habit/sub-stance misuse	13	.65(-)	2	.55	10	.07
Anxiety	20	.94	4	.50	19	-.39(-)
Total Sample	201	.93	62	.76	135	.01

2019 Conclusions: Short Version

- Previous versions of meta-analysis largely replicated with an independent sample of new, recent studies:
- HEPs, including PCT and EFT, appear to be effective.
- HEPs didn't do as well in 2019 samples because of overwhelming CBT researcher allegiance

CONCLUSIONS: LONG VERSION: OVERALL

- 1. HEPs associated with large *pre-post* client change.
  - *These client changes are maintained over the early posttherapy period (< 12 months)*
- 2. In *controlled studies*, clients in HEPs generally show large gains relative to clients who receive no therapy
  - *Regardless of whether studies are randomized or not*
- 3. In *comparative outcome* studies, HEPs overall are statistically and clinically equivalent in effectiveness to other therapies (especially nonCBT therapies),
  - *Regardless of whether studies are randomized or not*

CONCLUSIONS: OVERALL

- 4. However: In the current dataset, CBT appears to have a small advantage over HEPs
  - *But negative researcher allegiance was so prevalent that we couldn't control for it statistically*
  - *Often: non bona fide treatments*

CONCLUSIONS: TYPES OF HEP

- **1. Best outcome: EFT**
  - *But number of recent controlled & comparative studies too small to generalise*
- **2. Poorest outcome: Supportive-nondirective therapy**
  - *Weaker form of HEP, performs poorly against CBT*
  - *Recommendation: Don't use weak forms of HEP that you don't believe in*
- **3. Person-centered therapy: Falls in between supportive-nondirective therapies and EFT**
  - *But did better against CBT in 2008 sample*

- All three findings generally consistent across both our previous and current meta-analyses

CONCLUSIONS: CLIENT POPULATIONS/PRESENTATIONS

- Best results for:
  - *Interpersonal/relationship problems/trauma: but not supportive-nondirective*
  - *Coping with chronic medical conditions: under-recognized possibility for HEP*
  - *Habitual self-damaging activities: not just motivational interviewing*
  - *Coping with Psychosis: small samples but consistent over time*

- Mixed:
  - *Depression: better in 2008 sample than here*
  - *Anxiety: consistently poor against CBT; but promising new forms of EFT*

CONCLUSIONS: RESEARCH

- 1. More research needed
  - *Especially collaborations with folks from other approaches*
- 2. Quantitative research can be our friend
  - *Along with qualitative & case study research,*
- 3. Research evidence is not enough:
  - *Need to network & lobby*
  - *Develop own networks & structures (eg, guideline development groups)*

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