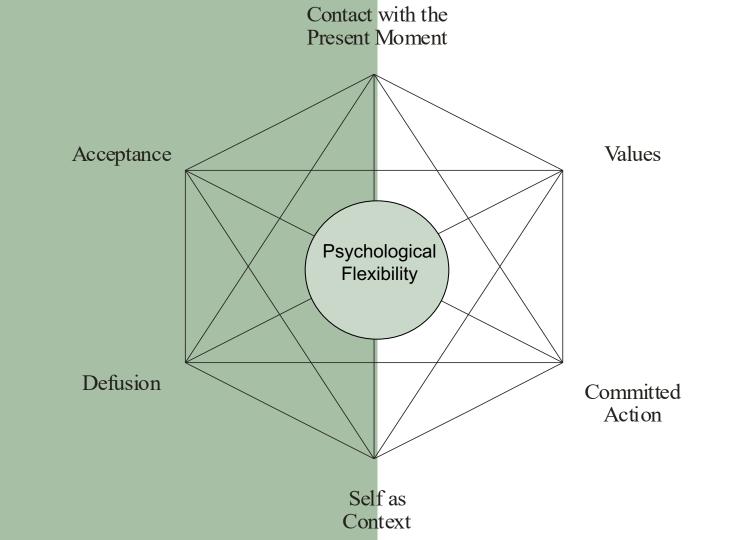
# State of the Evidence on ACT for OCD

Michael Twohig, Ph.D. Leila Capel Utah State University

# What is ACT?

A brief overview



# Measure Development

#### Measures of Psychological Flexibility in OCRDs

AAQ-OC

(Jacoby et al., 2018)

Obsessions and compulsions related psychological flexibility

AAQ-TTM

(Houghton et al., 2014)

Trichotillomaniarelated psychological flexibility AAQH

(Krafft et al., 2019)

Hoarding-related psychological flexibility

Below you will find a list of statements asking about your experiences with unwanted intrusive thoughts. Please rate how true each statement is for you by selecting a number using the scale below.

1 never true	2 very seldom true	3 seldom true	4 sometimes true	5 frequently true	6 almost alw	ays	tru	e	7 a	lwa	ys tr	rue
1. My intrusiv	e thoughts determine the	e actions that I tak	ce.			1	2	3	4	5	6	7
2. I try hard to	o avoid having intrusive	thoughts.				1	2	3	4	5	6	7
3. Intrusive th	oughts get in the way of	f my success.				1	2	3	4	5	6	7
4. It seems lik	e other people are hand	ling their unwante	d intrusive thoughts l	etter than I am.		1	2	3	4	5	6	7
5. I need to co	ontrol my intrusive thou	ghts in order to ha	ndle my life well.			1	2	3	4	5	6	7
6. I stop takin	g care of my responsibil	ities when I have i	ntrusive thoughts.			1	2	3	4	5	6	7
7. If an unplea	asant intrusive thought c	omes into my hea	d, I try to get rid of it	•		1	2	3	4	5	6	7
8. Intrusive th	oughts cause problems i	n my life.				1	2	3	4	5	6	7
9. I'm afraid o	of my intrusive thoughts.					1	2	3	4	5	6	7
10. My intrusi	ve thoughts prevent me	from leading a fulf	filling life.			1	2	3	4	5	6	7
11. I can't star	nd having intrusive thou	ghts.				1	2	3	4	5	6	7
12. I worry ab	out not being able to con	ntrol my intrusive	thoughts.			1	2	3	4	5	6	7
13. I try hard	to control the physical retracing, sweating).		-	hen I am having intru	sive thoughts	1	2	3	4	5	6	7

#### Disorder specific versions are more sensitive to change

Journal of Contextual Behavioral Science 12 (2019) 329-346



Contents lists available at ScienceDirect

#### Journal of Contextual Behavioral Science





A review of AAQ variants and other context-specific measures of psychological flexibility



Clarissa W. Ong<sup>1,\*</sup>, Eric B. Lee<sup>1</sup>, Michael E. Levin, Michael P. Twohig

Department of Psychology, Utah State University, 2810 Old Main Hill, Logan, UT 84322, USA

# Psychological Flexibility

Process of Change in OCD

### AAQ and Anxiety

- 63 studies
  - AAQ and all measures of anxiety r = .45
- General anxiety symptoms r = .48
- Specific anxiety disorder symptoms r = .42
- Specific disorders
  - $\circ$  GAD r = .61
  - Social phobia r = .41
  - PTSD r = .39
  - OCD r = .36
  - o panic/agoraphobia r = .21

## Outcome Research

Efficacy and effectiveness trials in the U.S.

#### **Overview of Trials in the US**

Case Studies

Multiple Baseline

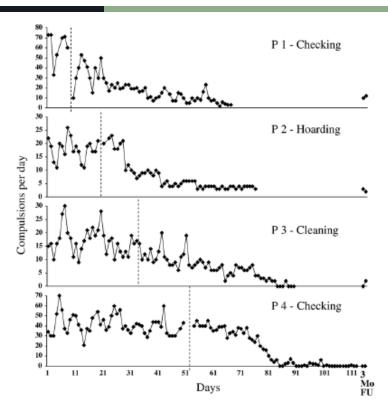
Open Trials

Hayes (1987)

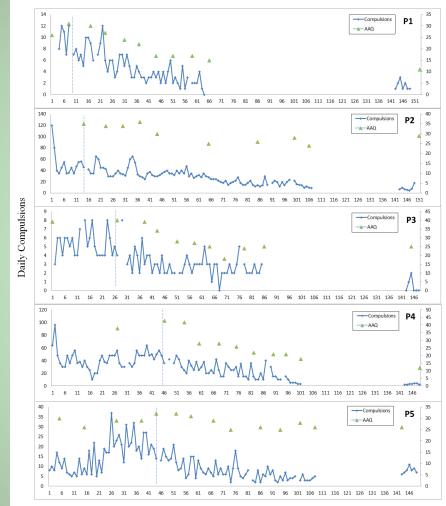
Twohig, Hayes &
Masuda (2006b)
Dehlin, Morison &
Twohig, (2013)
Armstrong et al. (2013)\*
Barney et al (2017)\*
Thompson et al (2021)

Capel et al. (2022) Petersen et al. (2022)\*

### ACT for OCD



#### **ACT for Scrupulosity**



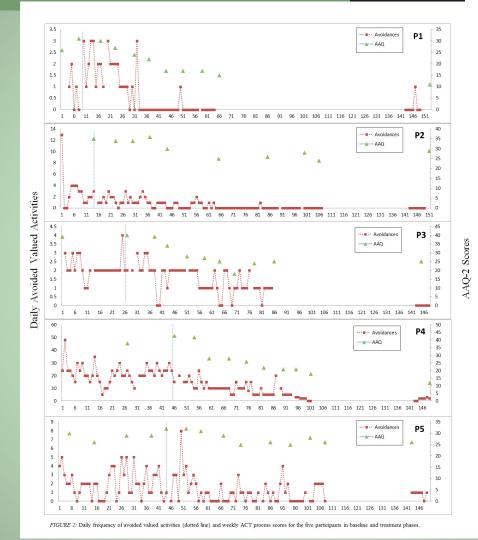
Scores

AAQ-2

Dehlin, Morrison, & Twohig, 2013

FIGURE 1: Daily frequency of compulsions (solid line) and weekly ACT process scores for the five participants in baseline and treatment phases.

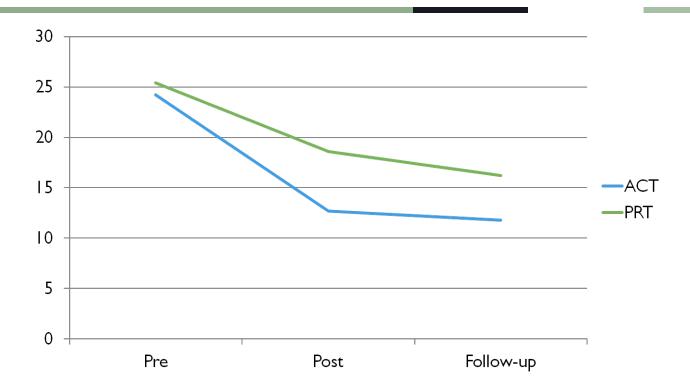
#### **ACT for Scrupulosity**



# Randomized Controlled Trials with Adults in USA

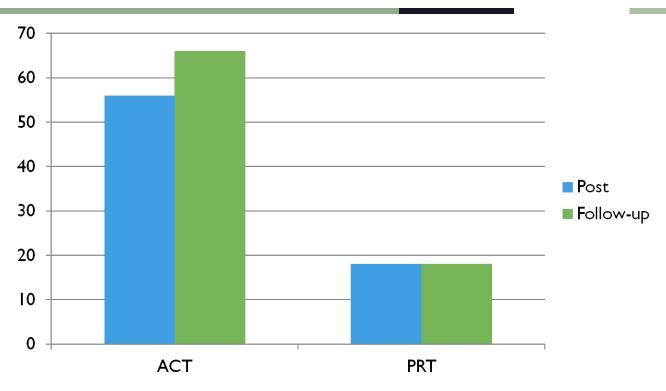
Twohig, Hayes, et al. (2010) Twohig et al. (2018)

#### **Y-BOCS Scores**

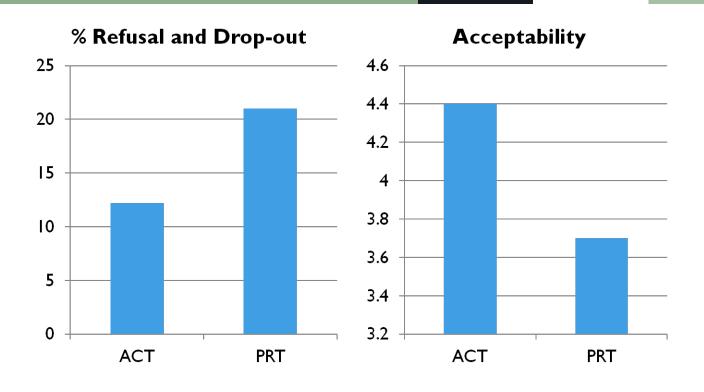


Twohig et al. (2010). Journal of Clinical and Consulting Psychology

## % treatment responders



## Refusal, drop-out, and acceptability



#### ACT+ERP vs ERP for OCD

Behaviour Research and Therapy 108 (2018) 1-9



Contents lists available at ScienceDirect

#### Behaviour Research and Therapy

journal homepage: www.elsevier.com/locate/brat



Adding acceptance and commitment therapy to exposure and response prevention for obsessive-compulsive disorder: A randomized controlled trial



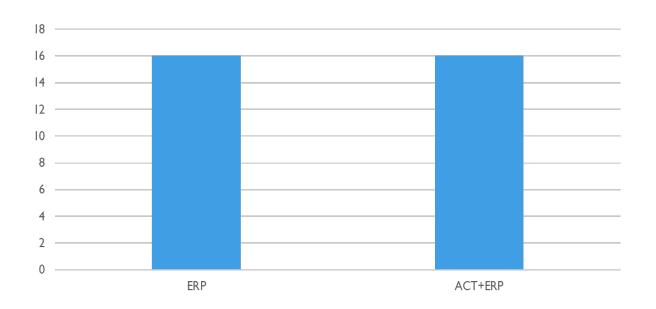
Michael P. Twohig<sup>a,\*</sup>, Jonathan S. Abramowitz<sup>b</sup>, Brooke M. Smith<sup>a</sup>, Laura E. Fabricant<sup>b</sup>, Ryan J. Jacoby<sup>b</sup>, Kate L. Morrison<sup>a</sup>, Ellen J. Bluett<sup>a</sup>, Lillian Reuman<sup>b</sup>, Shannon M. Blakey<sup>b</sup>, Thomas Ledermann<sup>c</sup>

a Utah State University, USA

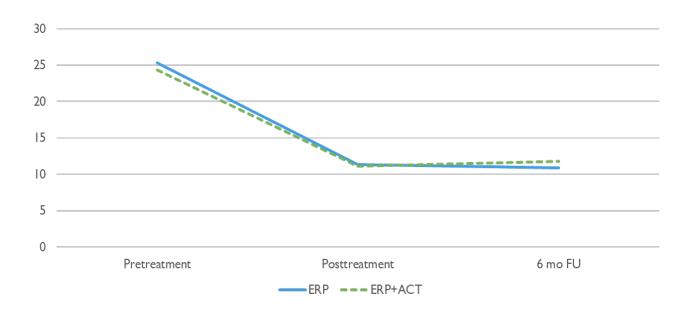
b University of North Carolina at Chapel Hill, USA

c Florida State University, USA

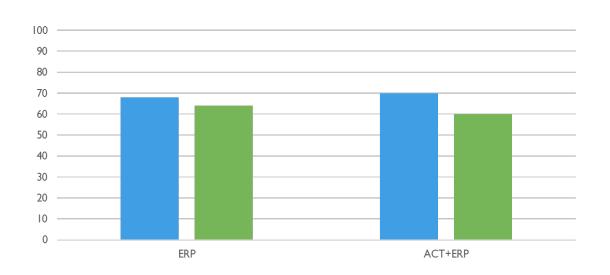
## Percent drop out



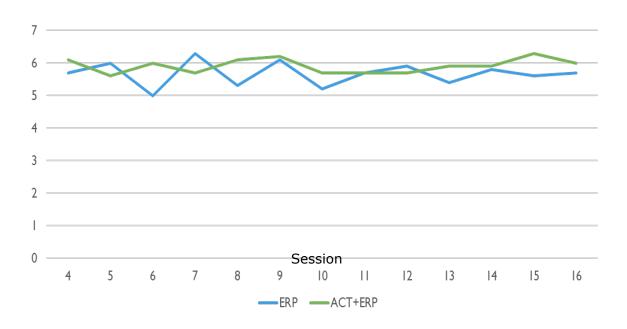
#### Y-BOCS



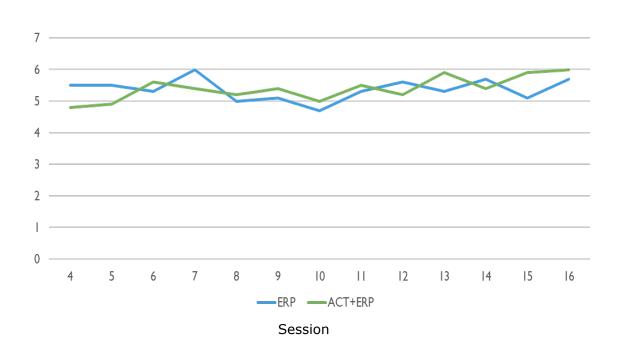
### Responders Score below 16 and 6.4 point change



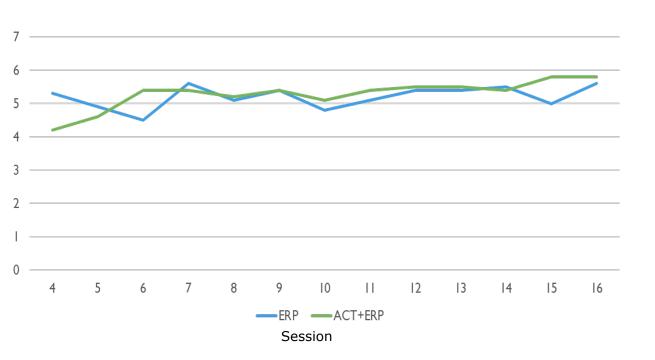
# PEAS Q1- What % of exposures 1=none, 6=most, 7=all



# PEAS Q2- How well exposures completed? 1=refused, 5=as assigned, 7=excellent



PEAS Q3- What % of urges were response prevention used 1=none, many (75%) =most, 7=most (redid exposure if mistake)



# Efficacy Trials in Iran

RCTs conducted in Iran

#### **Overview of Trials in Iran**

ACT vs. Waitlist

Izadi et al., 2014 Ghazanfari et al., 2015 Narimani et al., 2016 Shabani et al., 2019 Asli-Azad et al., 2019 Hashemi-Jashni et al., 2020 \*

Borghei et al., 2020

ACT vs. Nontraditional Comparison

Esfahani et al., 2015 Ghazanfari et al., 2015 Borghei et al., 2020 ACT+SSRI vs.
Continued SSRI

Vakili et al., 2013 Baghooli et al., 2014 Rohani et al., 2018

#### **Overview of Trials in Iran**

ACT+ SSRI vs. CBT+ SSRI

Shabani et al., 2019 \* Zemestani et al., 2020 ACT vs. CBT

Izadi et al., 2014 Narimani et al., 2016 Hashemi-Jashni et al., 2020 \* Processes of Change Assessed

Izadi et al., 2014 Rohani et al., 2018 Shabani et al., 2019 \* Zemestani et al., 2020

#### ACT+ SSRI vs. Continued SSRI

Trial	Age	Conditions	Outcomes
Vakili et al., 2013	Mean (SD): 26.96 (6.83)	ACT, ACT +SSRI, SRRI- alone	ACT = ACT +SSRI > SSRI alone
Baghooli et al., 2014	Mean (SD): 27.96 (6.07)	ACT, ACT + SSRI, SSRI- alone	ACT = ACT+SSR > SSRI-alone
Rohani et al., 2018	Mean (SD): 27.91 (7.26)	ACT + SSRI, SRRI- alone	ACT +SSRI > SRRI- alone <b>PF:</b> Statistically significant change

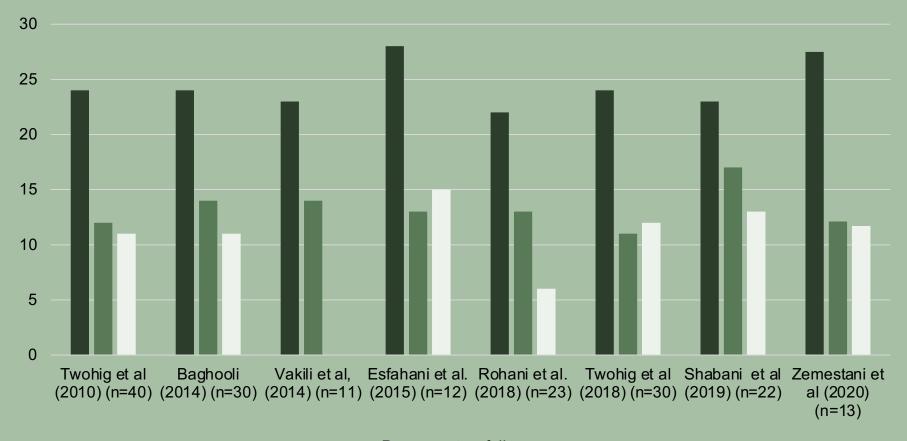
#### ACT+SSRI vs. CBT+SSRI

Trial	Age	Conditions	Outcomes		
Shabani et al., 2019	Mean (SD): 14.96	ACT + SSRI, CBT +	ACT + SSRI = CBT +		
	(1.47)	SSRI, SSRI	SSRI > SSRI		
			PF: ACT > CBT		
Zemestani et al, 2020	Mean (SD): 35.69	ACT + SSRI, ERP +	ACT + SSRI = ERP +		
	(9.34)	SSRI, SSRI	SSRI > SSRI alone		
			PF: ACT > CBT		

#### ACT vs. CBT

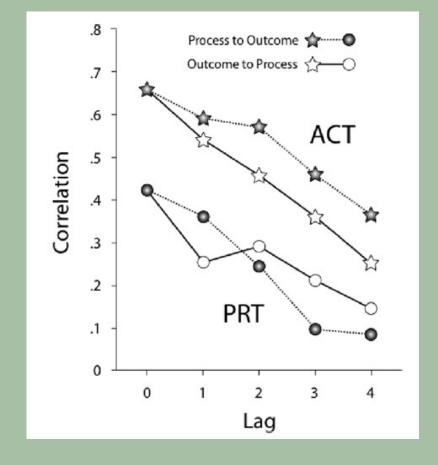
ACT VS. CBT				
Trial	Age	Conditions	Outcomes	
Izadi et al., 2014	Mean (SD): 31.97 (7.16)	ACT, CBT, WL	Post: CBT: ∠ACT > WL Follow-up: ACT = CBT > WL PF: ACT > CBT	
Narimani et al., 2016	Mean (SD): 28.13 (7.38)	ACT, ERP, WL	ACT > ERP > Waitlist	
Hashemi-Jashni et al., 2020	Range 18-50	ACT, ERP, WL	ERP > ACT >WL	

# Summary of YBOCS scores



■ Pre ■ post □ follow-up

# O5 Process of Change





Contents lists available at ScienceDirect

#### Journal of Obsessive-Compulsive and Related Disorders

journal homepage: www.elsevier.com/locate/jocrd



Moderators and processes of change in traditional exposure and response prevention (ERP) versus acceptance and commitment therapy-informed ERP for obsessive-compulsive disorder

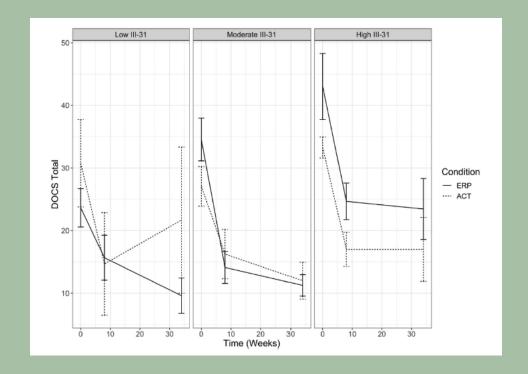


Clarissa W. Ong<sup>a,\*</sup>, Shannon M. Blakey<sup>b</sup>, Brooke M. Smith<sup>a</sup>, Kate L. Morrison<sup>a</sup>, Ellen J. Bluett<sup>a</sup>, Jonathan S. Abramowitz<sup>b</sup>, Michael P. Twohig<sup>a</sup>

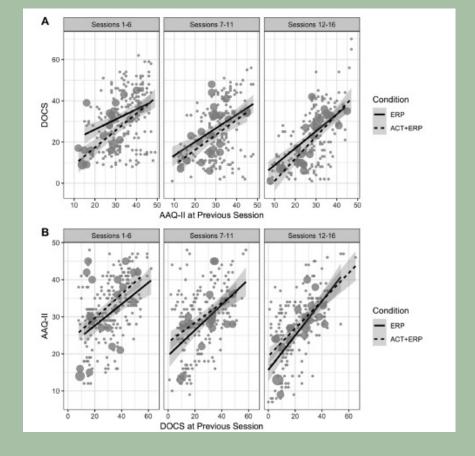
Psychological inflexibility and interpretation of intrusions both functioned as predictors of change

a Department of Psychology, Utah State University, USA

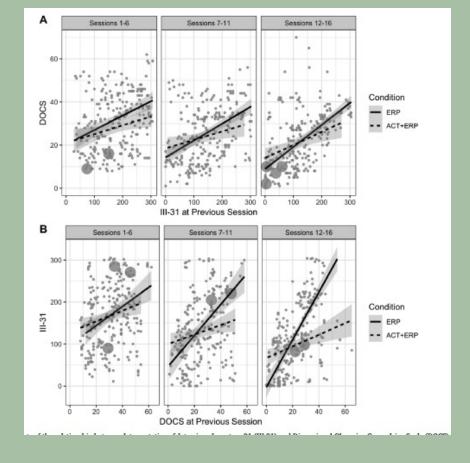
b Department of Psychology, University of North Carolina at Chapel Hill, USA



Participants with less dysfunctional appraisals at pretreatment performed consistently better in ERP relative to ACT + ERP.



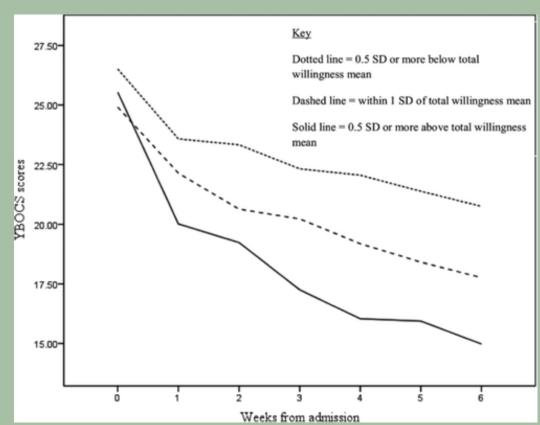
Psychological inflexibility and interpretation of intrusions both functioned as predictors of change



Psychological inflexibility and interpretation of intrusions both functioned as predictors of change

Psychological flexibility as a general predictor

#### Willingness as a predictor of outcomes



		PEAS: Exposure Adherence	PEAS: Urges Resisted	AAQ- II	DOCS: Contamination	DOCS: Responsibility for Harm	DOCS: Unacceptable Thoughts	DOC! Symn
	Session	-0.02 [-0.07; 0.04]	0.06 [0.00; 0.11] <sup>a</sup>	-0.48 [-0.67; -0.28] <sup>a</sup>	-0.24 [-0.36; -0.11] <sup>a</sup>	-0.20 [-0.28; -0.11] <sup>a</sup>	-0.25 [-0.38; -0.12] <sup>a</sup>	-0.18 [-0.25; -0.12] <sup>c</sup>
Psychological	Acceptance/tolerance (quantity)	-0.03 [-0.13; 0.07]	-0.19 [-0.29; -0.10] <sup>a</sup>	-0.08 [-0.28; 0.13]	0.01 [-0.10; 0.13]	0.25 [0.13; 0.37] <sup>a</sup>	0.21 [0.10; 0.32] <sup>a</sup>	0.06 [-0.03; 0.16]
Flexibility as a Predictor	Acceptance/tolerance (quality)	0.17 [0.08; 0.26] <sup>a</sup>	0.28 [0.19; 0.36] <sup>a</sup>	-0.48 [-0.66; -0.30] <sup>a</sup>	0.04 [-0.06; 0.14]	-0.15 [-0.26; -0.05] <sup>a</sup>	-0.20 [-0.29; -0.10] <sup>a</sup>	-0.18 [-0.27; -0.10] <sup>6</sup>
	Distress reduction (quantity)	0.16 [0.05; 0.26] <sup>a</sup>	-0.08 [-0.18; 0.01]	-0.73 [-0.95; -0.51] <sup>a</sup>	0.26 [0.13; 0.39] <sup>a</sup>	-0.01 [-0.15; 0.12]	-0.10 [-0.22; 0.03]	-0.07 [-0.17; 0.04]
	Duration	-0.01 [-0.02; -0.00] <sup>a</sup>	-0.00 [-0.01; 0.00]	0.02 [0.00; 0.03] <sup>a</sup>	-0.02 [-0.02; -0.01] <sup>a</sup>	-0.00 [-0.01; 0.01]	0.01 [0.00; 0.01] <sup>a</sup>	-0.01 [-0.02; -0.00] <sup>6</sup>
	Collaboration	0.15 [0.04; 0.26] <sup>a</sup>	0.06 [-0.04; 0.16]	-0.44 [-0.66; -0.22] <sup>a</sup>	-0.08 [-0.20; 0.05]	0.09 [-0.04; 0.22]	-0.19 [-0.31; -0.07] <sup>a</sup>	0.10 [-0.00; 0.20]
	Rationale	0.00 [-0.07; 0.07]	-0.02 [-0.08; 0.04]	-0.43 [-0.56; -0.30] <sup>a</sup>	0.09 [0.01; 0.17] <sup>a</sup>	0.02 [-0.06; 0.10]	-0.01 [-0.08; 0.07]	-0.08 [-0.15; -0.02] <sup>6</sup>
Ong et al. (2022)	BIC Number of observations	3998.53 1289	3546.54 1248	6093.01 1339	4486.40 1321	4605.64 1321	4515.17 1339	3961. <sup>∠</sup> 1321

# One more cool study



Contents lists available at ScienceDirect

#### Journal of Contextual Behavioral Science





The role of therapist experiential avoidance in predicting therapist preference for exposure treatment for OCD



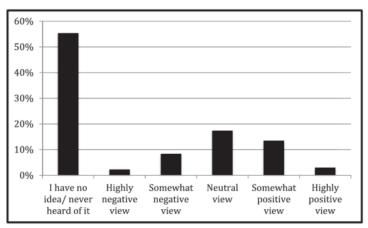
Stephanie Rabin Scherr, James D. Herbert\*, Evan M. Forman

Drexel University, 3141 Chestnut Street, Stratton Hall, Philadelphia, PA 19104, USA

- Watched mock intake and asked how much time dedicated to exposure.
- 2. More experiential avoidance = less time in exposure

# Ok, one more study

## Therapists, not clients, are opposed to exposure therapy (Arch et al., 2015)



Note: These ratings were made *prior* to participants receiving a basic definition or rationale for exposure therapy.

**Fig. 2.** Baseline view of exposure therapy for treating anxiety or trauma, n = 964.

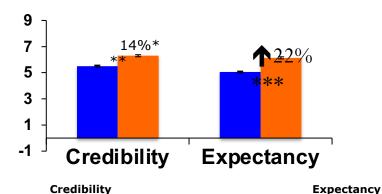
## Therapists, not clients, are opposed to exposure therapy (Arch et al., 2015)

**Table 3**Treatment credibility/expectancy questionnaire pre to post rationale ratings.

Credibility/Expectancy questionnaire item:	Baseline mean (SD)	Post-rationale mean (SD)		
1. How likely to participate?	5.02	6.07		
	(2.38)	(2.32)		
2. How logical?	6.81	7.17		
	(1.81)	(1.84)		
3. How successful?	5.66	6.29		
	(2.15)	(2.12)		
4. How confident to recommend?	5.38	6.17		
	(2.28)	(2.16)		
5. How enthusiastic?	4.66	5.80		
	(2.45)	(2.42)		
6. How much improvement?	50.50%	61.40%		
	(25.10)	(26.96)		

Note: For full measure item content, please refer to the Appendix A (items are shortened here for brevity). "Baseline" refers to ET credibility ratings following a basic definition of ET. "Post-rationale" refers to overall ET credibility following all rationale. Items 1–5 were assessed on a 1–9 Likert scale whereas Item 6 was assessed on a 0–100% scale.

## Did the ACT/CBT rationale improve credibility and expectancy from baseline?



Initial View	Baselin e	Post	Effect size (pn2)	e % Increase	Initial View	Effect size (pn2)	% Increase
No idea	5.47	6.34	.32***	16%	No idea	.29***	25%
Neutral	5.26	6.13	30***	16%	Neutral	.27***	21%
Negative	3.61	4.57	.32***	27%	Negative	.26***	31%
Positive ***p <	7.11	/.51	.13	U-70	Politive	.21	11%

.001

### Questions?

## Thank you!

Do you have any questions?

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#### References

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