



A systematic review and meta-analysis of brief Acceptance and Commitment Therapy

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Introduction

Acceptance and Commitment Therapy (ACT) is a form of psychological intervention with trans-diagnostic effects. Traditionally face-to-face and with multiple sessions, ACT is also implemented in various formats. Implementing ACT in the short-term may be useful because of the high possibility of participation and low cost. The purpose of this study was to gather the literature on ACT implemented in the short term and review its efficacy.

Methods

Selection criteria

Studies with short-term therapist-conducted ACT were included. Studies dealing with psychological or physical problems were included. We excluded interventions to improve performance.

"Short-term" criteria

In Ost (2014), the bottom 25% of studies on 60 ACT were used as short-term criteria. Then, the definition of short-term was that two or more of the following three criteria were met.

1. Up to one month
2. Four sessions or less
3. Total session time within 6 hours

ACT criteria

Following Ruiz et al. (2010), we included studies with two or more components of psychological flexibility as studies with ACT.

Data analysis

We conducted a meta-analysis for primary outcomes in RCTs with means and standard deviations. We used a random-effects model to determine the standardized mean difference.

Search strategy & Data extraction

Database

- PubMed
- CENTRAL
- PsychINFO
- PsychArticles

Key terms

"acceptance and commitment therapy"
"short term"
"brief"
"one session"
"one day"
"intensive"

This search was conducted on 14th July 2017.

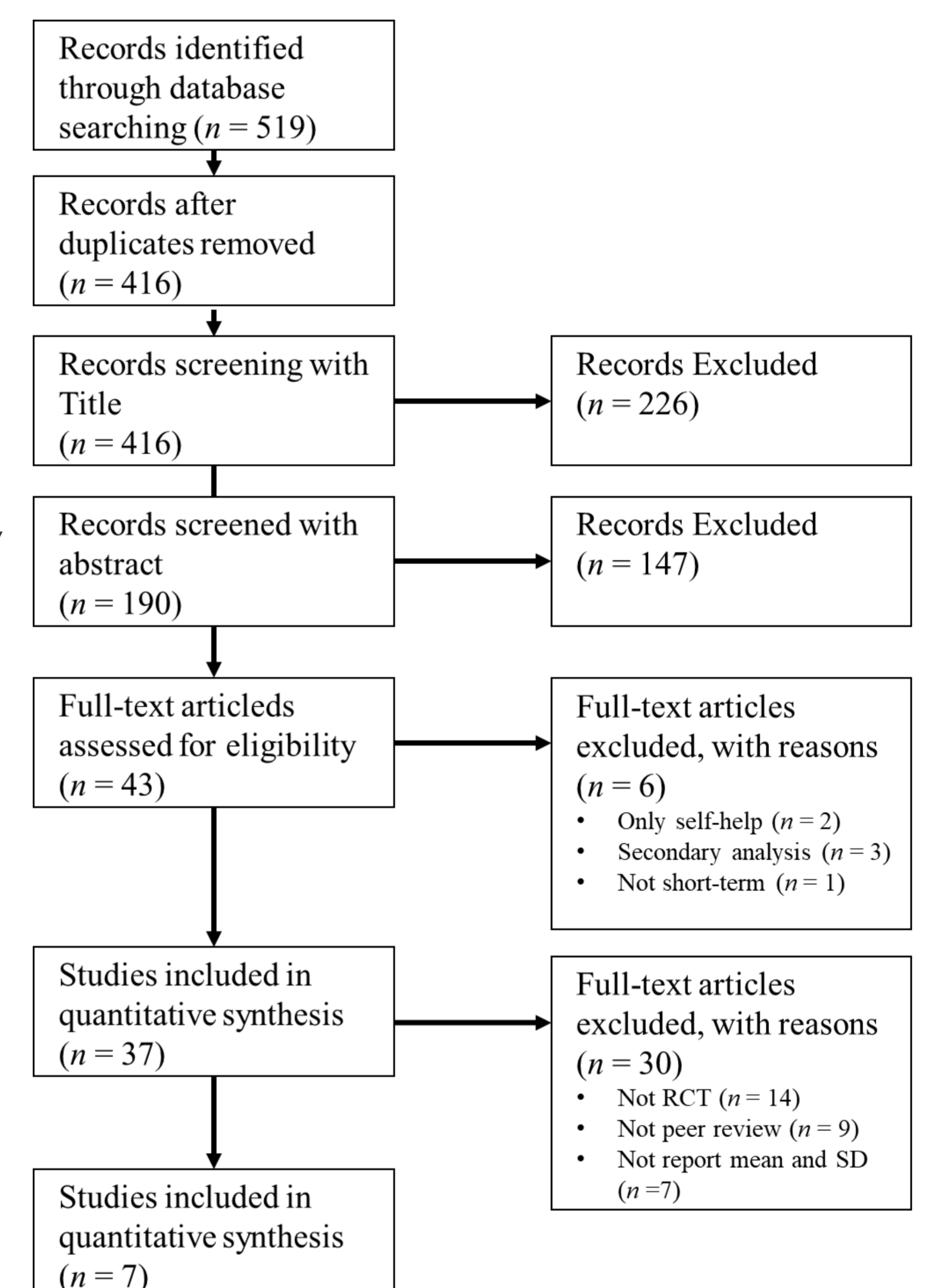


Figure 1. Data extraction flow

Results

Table 1 shows seven studies including a meta-analysis. The meta-analysis of the seven studies showed a significant effect size with a standardized mean difference of -1.18 (see Table 2). However, the score of I^2 was 87%, being quite high. Also, the funnel plot was asymmetrical (Figure 2).

	Primary outcome	Target	Results
Dahl et al. (2004)	Sick leave	public health service employees	ACT>TAU
Lundgren et al. (2006)	Seizure frequency	institutionalized or day workers in a center for elipsy	ACT>ST
Gregg et al. (2007)	HbA1c	Type II diabetes	ACT on EDU > EDU
Flaxman & Bond (2010)	GHQ-12	employee	ACT=SIT>Cont
MacCracken et al. (2013)	RMDQ	chronic pain in a primary care setting	ACT+TAU>TAU
Danitz & Orsillo (2014)	DASS-21	freshmen and first-year law students	ACT>WL
Kohtala et al. (2015)	BDI-II	individuals with depressed mood	ACT>WL

Notes: ACT; Acceptance and Commitment Therapy, TAU; Treatment As Usual, ST; Supportive Therapy, EDU; Education, SIT; Stress Inoculation Training, WL; Waiting List

Table 1. Summary of the studies including meta-analysis

Study or Subgroup	ACT			Control			Weight	Std. Mean Difference IV, Random, 95% CI	Year
	Mean	SD	Total	Mean	SD	Total			
Dahl et al. 2004	1	2.3	11	11.5	12.5	13	13.3%	-1.08 [-1.95, -0.21]	2004
Lundgren et al. 2006	0.71	0.89	14	5.86	3.62	13	12.8%	-1.93 [-2.87, -0.99]	2006
Gregg et al. 2007	7.47	1.46	33	9.07	2.22	40	15.6%	-0.83 [-1.31, -0.35]	2007
Flaxman & Bond 2010 vs AC	10.53	4.8	23	10.55	5.96	23	15.1%	-0.00 [-0.58, 0.57]	2010
MacCracken et al. 2013	9.96	4.85	31	12.58	6.02	27	15.4%	-0.48 [-1.00, 0.05]	2013
Danitz & Orsillo 2014	5.48	1.77	17	10.99	1.35	29	12.6%	-3.57 [-4.54, -2.60]	2014
Kohtala et al. 2015	12.57	8.88	28	21.21	9.76	29	15.3%	-0.91 [-1.46, -0.36]	2015
Total (95% CI)			157			174	100.0%	-1.18 [-1.86, -0.50]	

Table 2. Forest plot

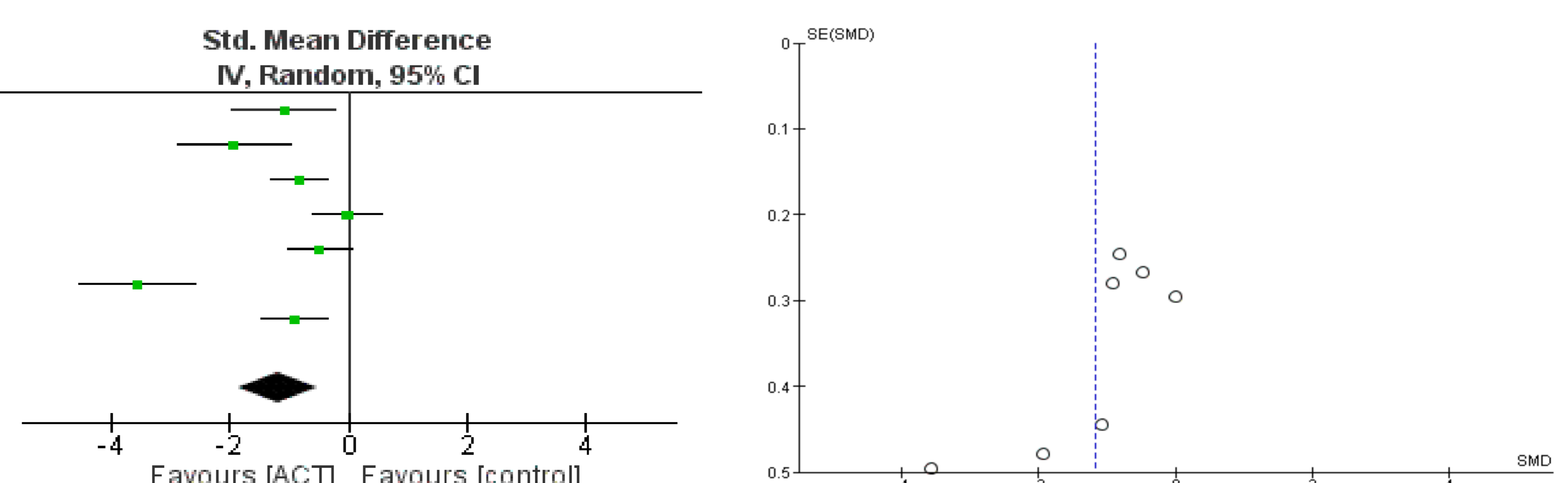


Figure 2. Funnel plot

Discussion

The results of this study showed that the short-term implementation of ACT is effective for a variety of problems. However, there is also a high degree of heterogeneity due to the small number of studies and the integration of different outcome measures. In order to be sufficiently effective, the number of studies needs to increase. Lastly, the data acquisition happened long ago, so there is a need to search again.