

# Web-based self-help ACT for chronic pain: Is it effective? And for whom?

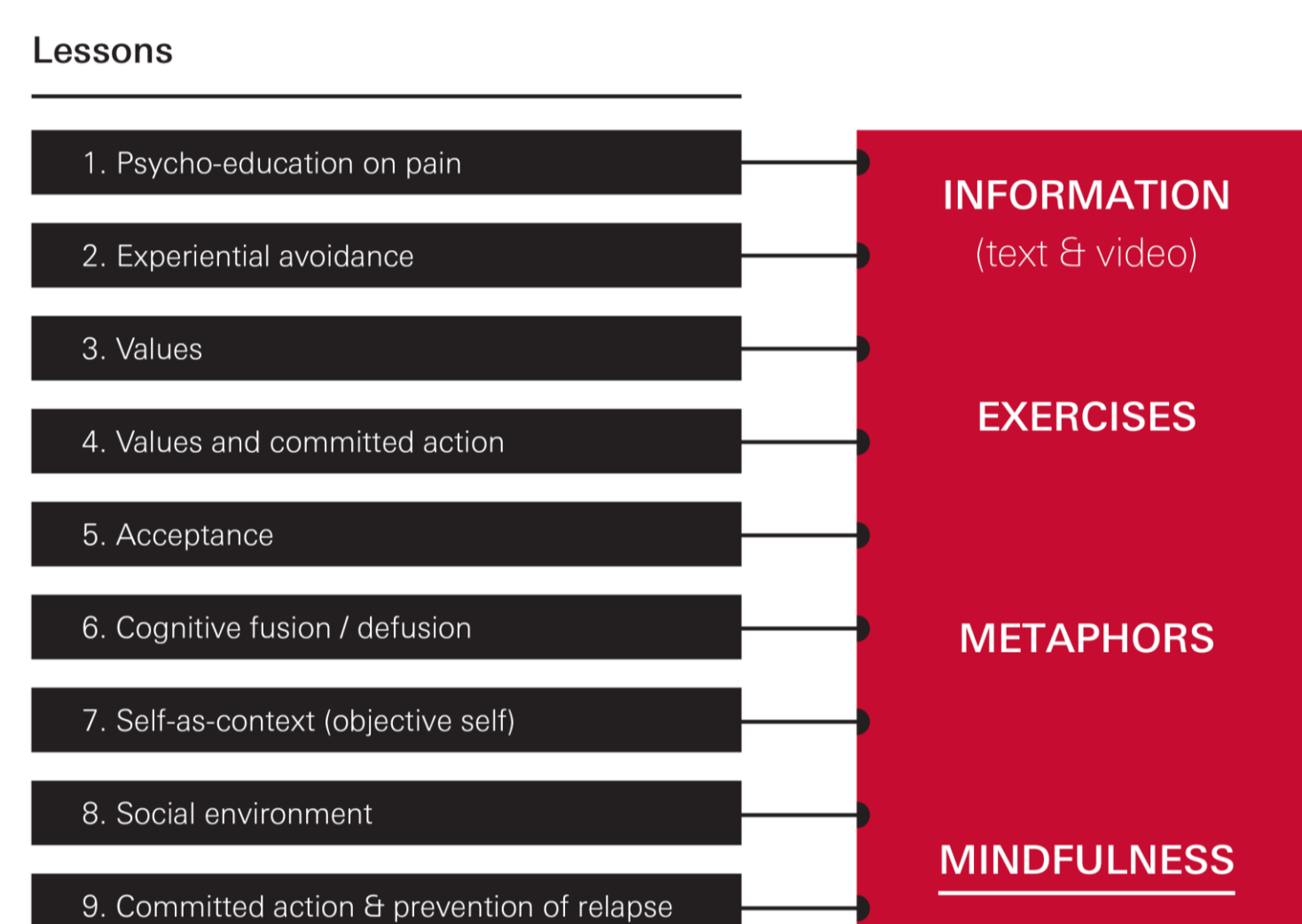
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## STATE-OF-THE-ART

- Web-based self-help interventions can alleviate the disease burden of (mental) health problems. They are potentially cost- and time-effective, can be easily disseminated to large groups and followed at one's own pace.
- Knowledge on the effectiveness of web-based self-help ACT is scarce.
- We too often ignore asking *how, why and for whom* ACT and other psychological treatments do (not) work. Doing so can increase effectiveness and inform allocation and tailoring of treatment to individuals.

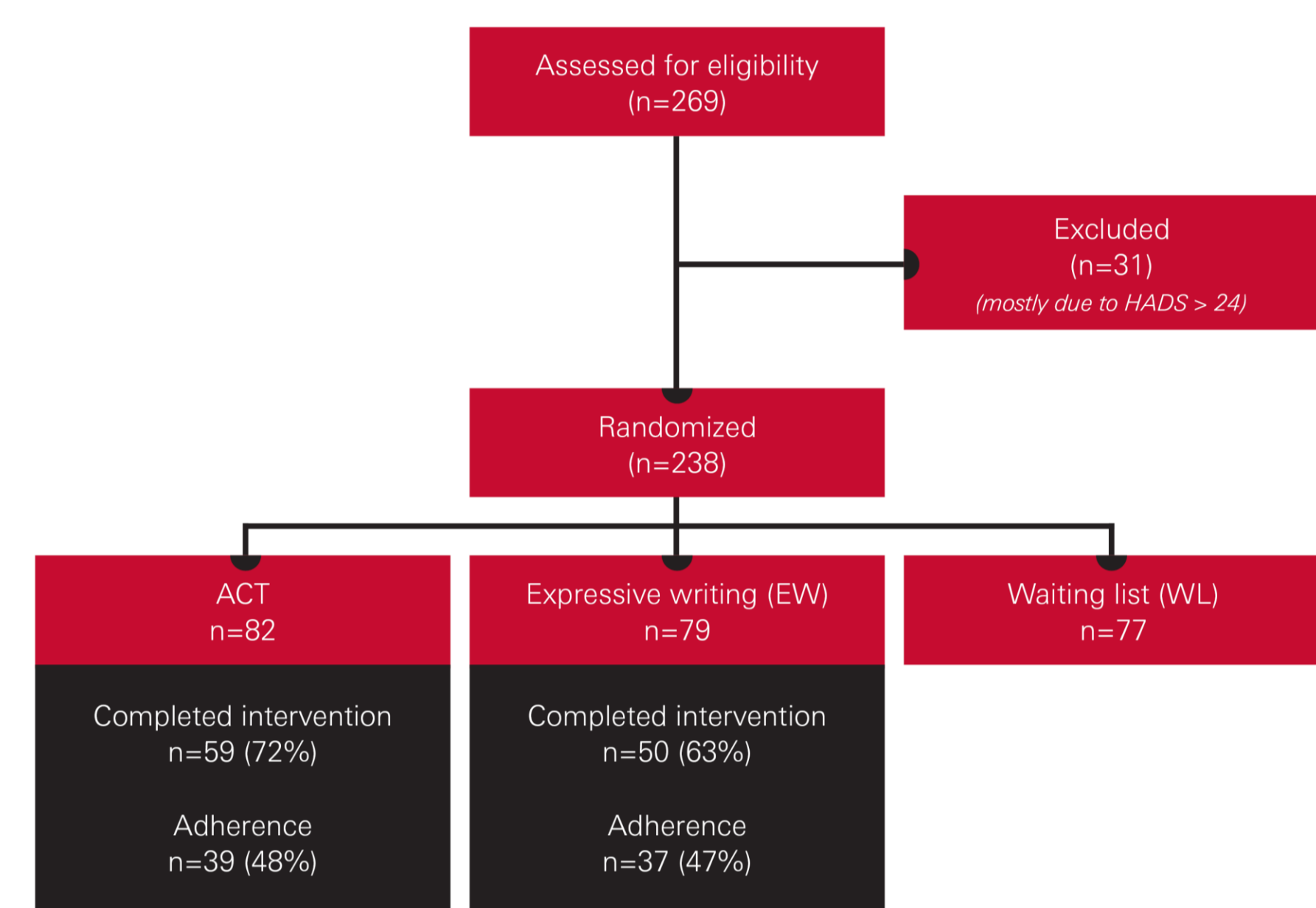
## LIVING WITH PAIN

- Based on successful 'Living to the Full' protocol for mild depression.
- 9-12 weeks
- Weekly feedback for guidance of process and motivation.



## SAMPLE & PROCEDURE

Heterogeneously diagnosed chronic pain sufferers from the Dutch population participated in a RCT. The typical participant was a highly educated, 53-year old female with pain complaints > 5 years.

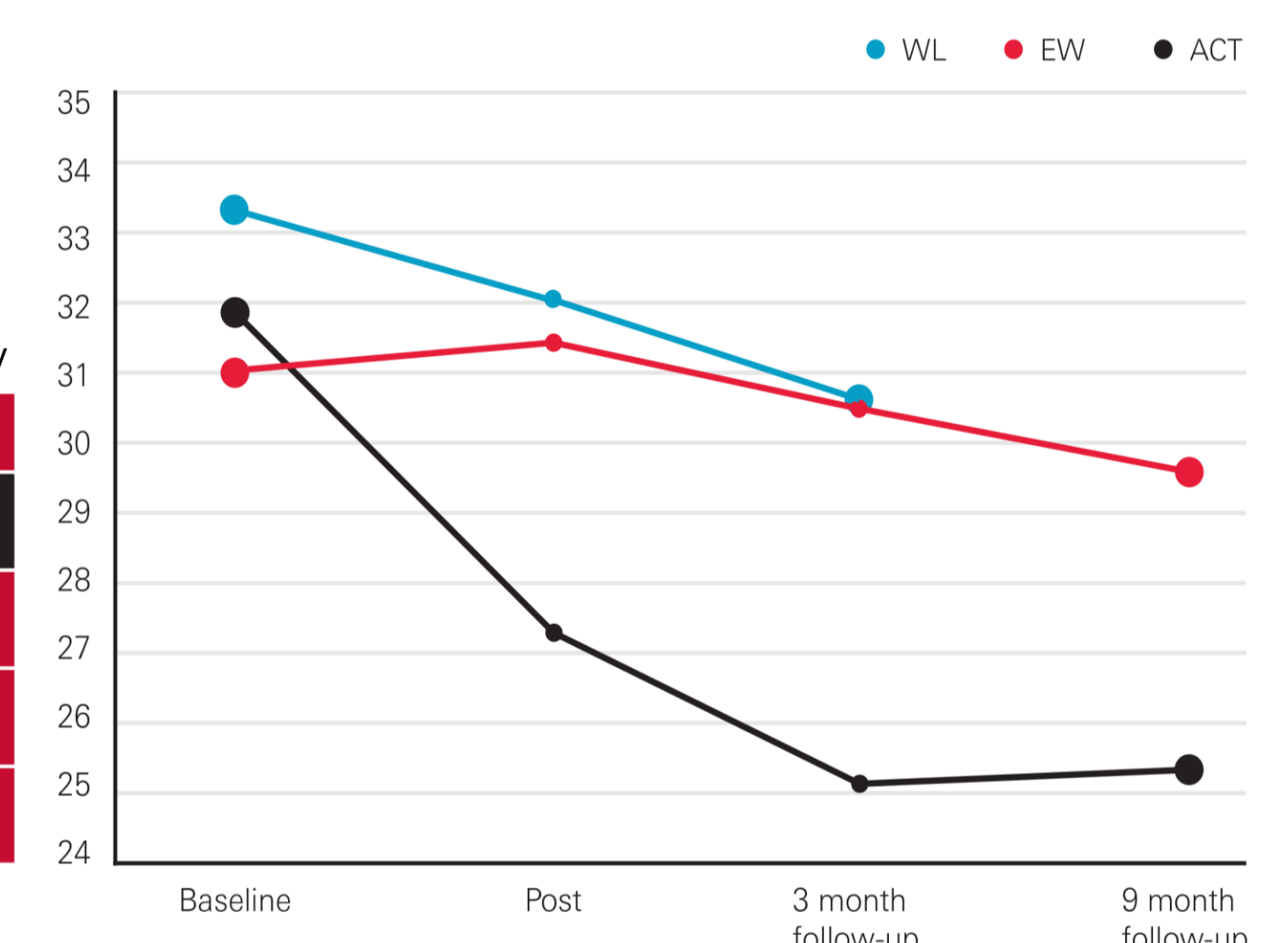


## RESULTS

### Pain interference (MPI)

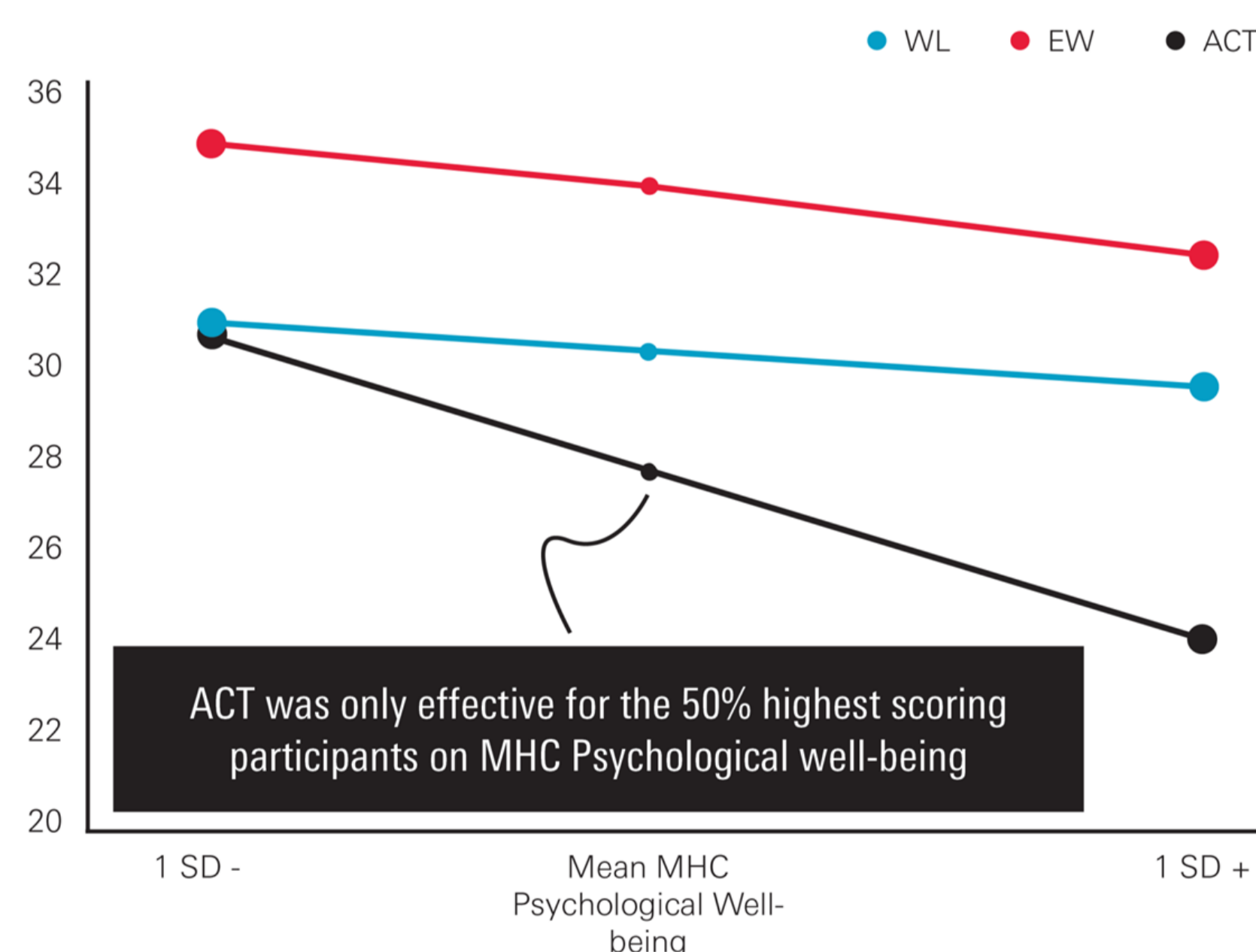
Note: Outcomes for adherers only

	ACT versus EW		ACT versus WL	
	p	Cohen's d	p	Cohen's d
Post	.005	.33	.029	.49
3 month follow-up	.000	.48	.008	.49
9 month follow-up	.024	.26		



## FOR WHOM DID IT WORK?

We studied a range of potential demographic, physical and emotional baseline moderators of changes in pain interference in daily life during web-based ACT compared to both control conditions. The goal was to discern for whom web-based ACT was most or least effective.



*Psychological well-being (Carol Ryff) is a state of optimal mental functioning defined by self-acceptance, environmental mastery, positive social relations, personal growth etc. It functions independent from vulnerabilities and distress in predicting mental and physical illness.*

### Effect sizes

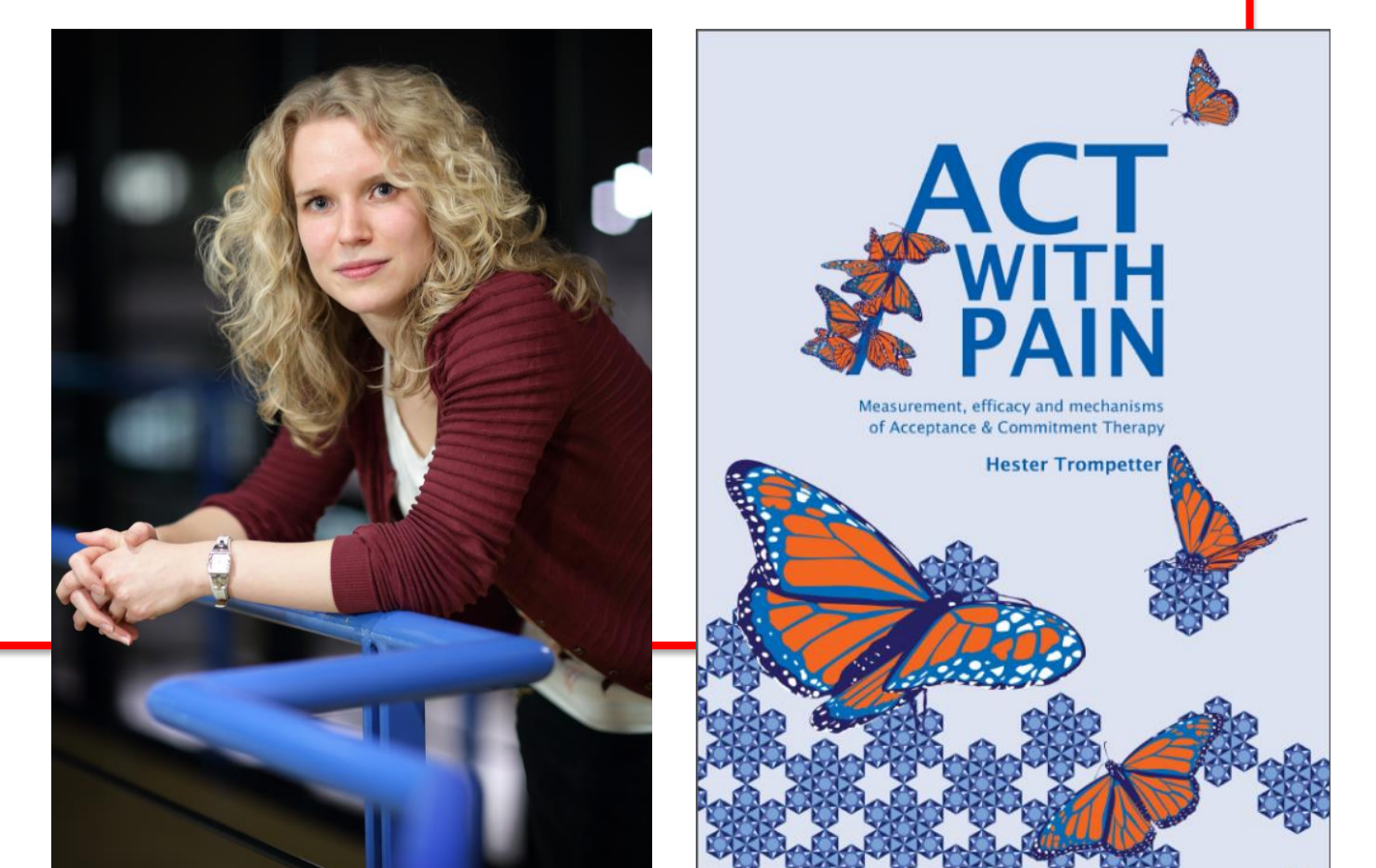
At 3-month follow-up, ITT-analyses showed that effects were also present in favour of ACT in psychological distress, pain intensity, pain disability, psychological inflexibility, mindfulness and pain catastrophizing. Effect sizes ranged from .28 (pain intensity) to .60 (psychological inflexibility).

### Clinically relevant change

	N participants improved / total				p-value*	
	ACT	EW	WL		vs EW	vs WL
<b>MPI</b>						
≥ 0.6 SD improvement	43/82 52%	13/79 16%	25/77 32%		.001	.072
<b>Pain intensity (NRS)</b>						
≥ 20% improvement	44/82 52%	24/79 30%	18/77 23%		.004	.000
≥ 30% improvement	31/82 38%	17/79 22%	15/77 19%		.026	.014
<b>HADS depression</b>						
Score < 8 at follow-up	69/82 84%	53/79 67%	54/77 70%		.016	.032
<b>More than 1 outcome</b>						
≥ 2 outcomes	52/82 63%	24/79 30%	29/77 38%		.000	.001
All 3 outcomes	23/82 28%	4/79 5%	5/77 5%		.000	.000

## GENERAL CONCLUSION

The online self-help ACT intervention 'Living with Pain' is effective. Approximately 1 in 4 shows clinically relevant improvement in *all of the three* recommended chronic pain outcomes pain interference, depression and pain intensity. Effect sizes are relatively similar to other web-based- and face-to-face ACT- and CBT-interventions. However, self-managing a challenging cognitive-behavioral intervention that requires the transformation of patterns that narrowed effective living for a prolonged period of time, could simply be too much for individuals lacking positive psychological resources. More focus on positive resilience mechanisms for chronic pain, and the how, why and for whom of ACT, is necessary.



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