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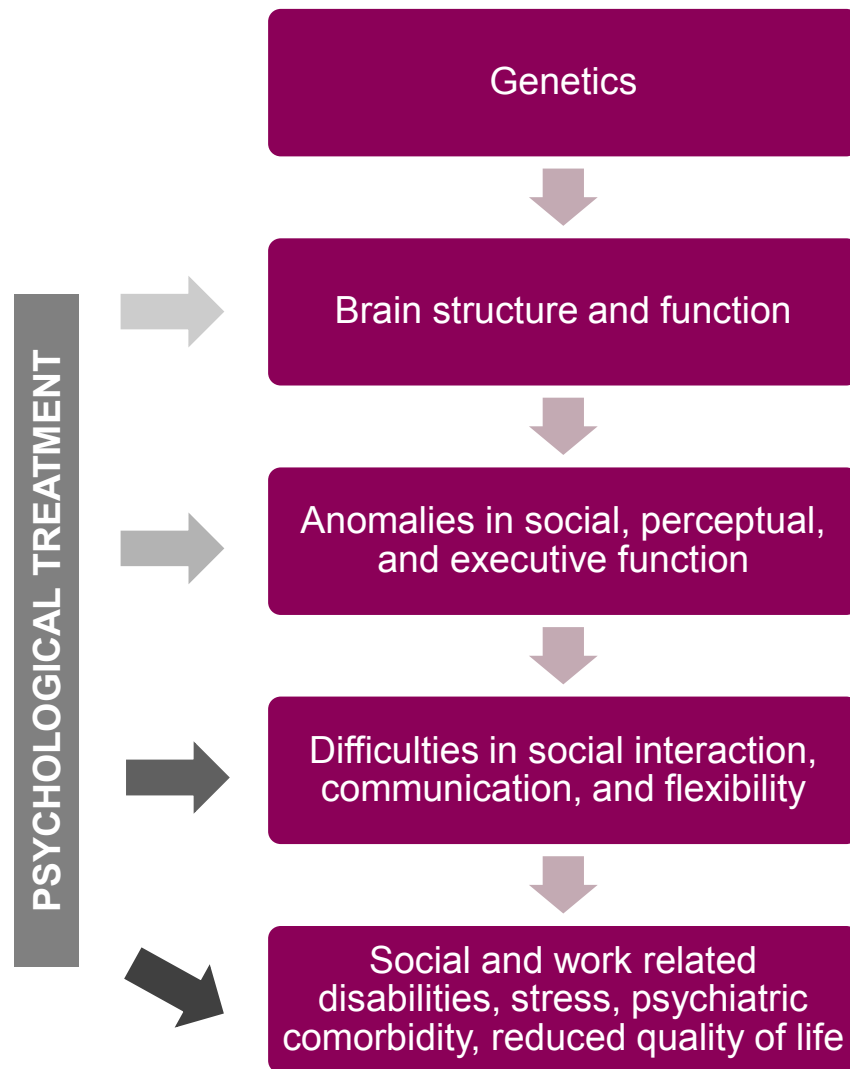
# **Acceptance and Commitment Therapy (ACT) and high-functioning autism spectrum disorder (ASD): a functional contextual approach to conceptualize and treat associated symptoms**

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# Autism spectrum



# Studies

- Social skills training (Reichow et al., 2012)
- Cognitive behavior therapy (Wood et al., 2009)
- Mindfulness-based therapy (Spek et al., 2013)
- Acceptance and commitment therapy (Pahnke et al., 2013)



# Conceptualization of ACT in ASD

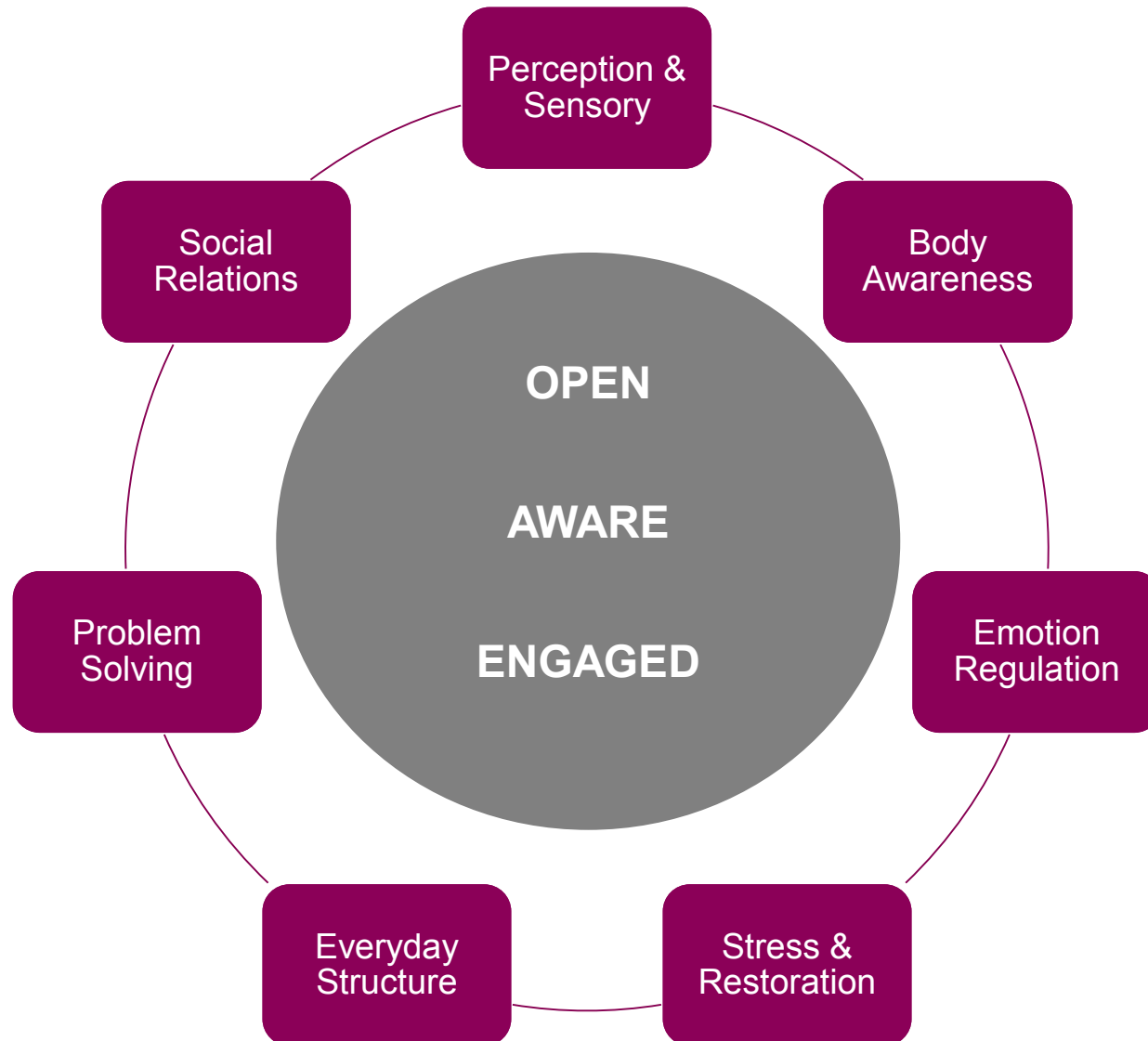
ACT		ASD	
PSYCHOLOGICAL FLEXIBILITY	<b>OPEN</b> Acceptance & willingness	Emotional and social avoidance	PSYCHOLOGICAL INFLEXIBILITY
		Sensory over- and under stimulation	
		Aversion to uncertainty and changes	
	<b>AWARE</b> Being present & perspective taking	Literality & fusion	
		Intellectualization & worry	
		Perseveration in problem solving	
	<b>ENGAGED</b> Values & committed action	Deficits in perception of self and others	
		Rituals and rule-governed behaviors	

# The ACT-based skills training program

(Pahnke et al.)

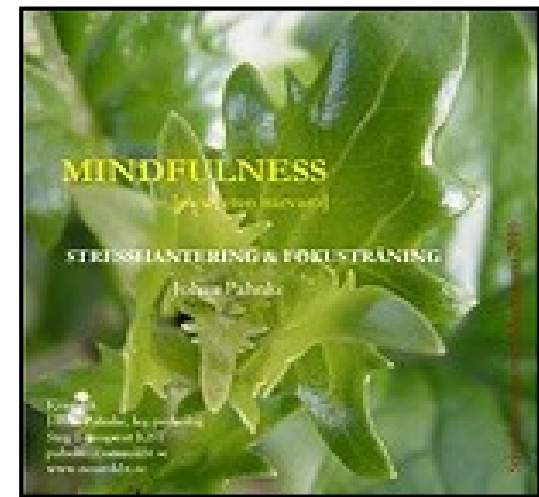


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# Structure of the skills training

- 12-14 weekly group sessions (modules)
- Home work assignments
- Mindfulness & acceptance exercises with an adapted CD
- Group and pen & paper exercises (mindfulness, acceptance, values/committed action, defusion)
- Short (6-12 min) & easy mindfulness & acceptance exercises (listen to sounds, shifting attention, focus on breathing, body scan)





Article

# **Outcomes of an acceptance and commitment therapy-based skills training group for students with high-functioning autism spectrum disorder: A quasi-experimental pilot study**

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and Tatja Hirvikoski<sup>1</sup>**

Autism

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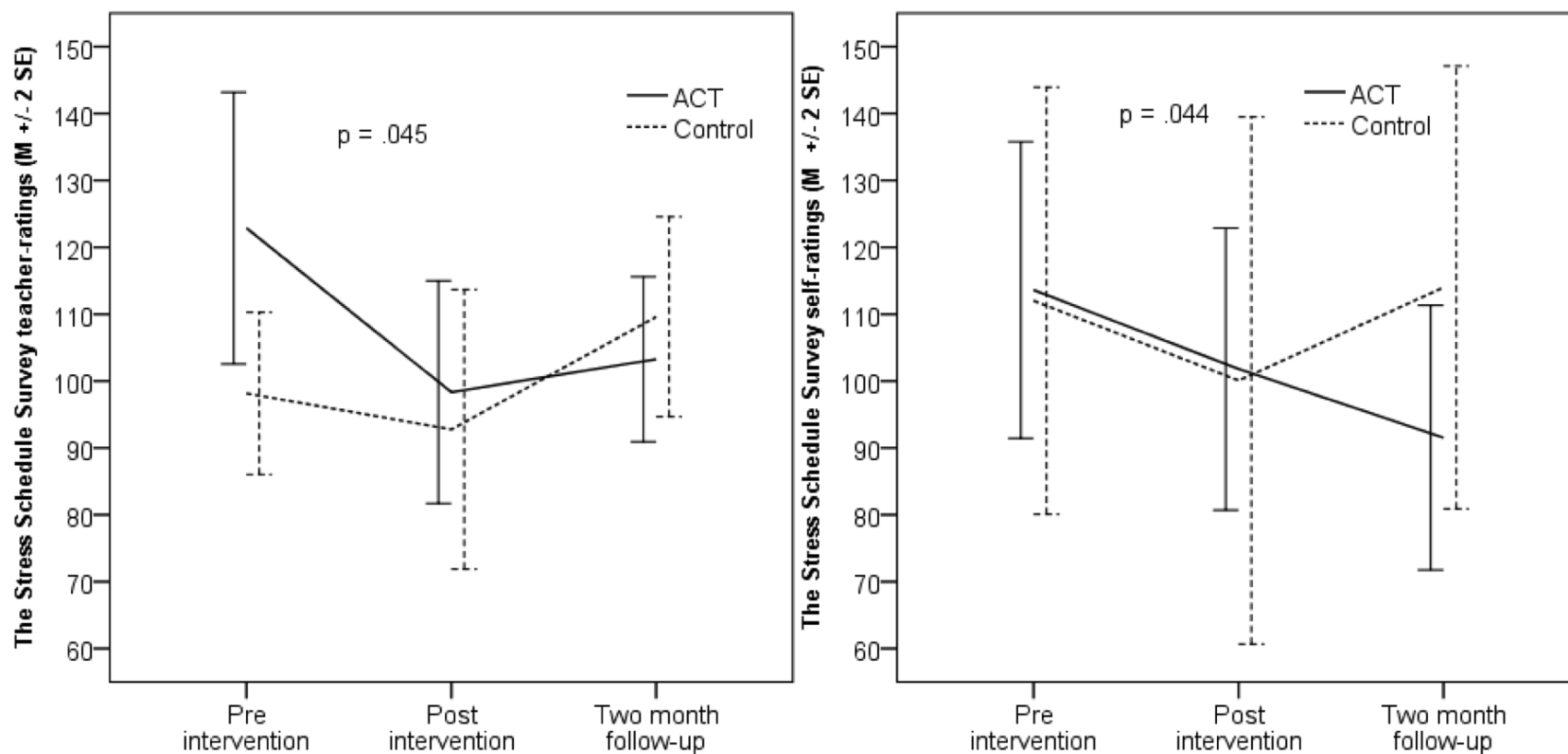


# Study 1: ACT-based skills training group for adolescents/young adults with high-functioning ASD

(Pahnke, Lundgren, Hursti, & Hirvikoski, *published in Autism*, October 2013)

- Pilot RCT study
- 28 adolescents and young adults (aged 13-21)
- Psychiatric comorbidity (ADHD, stress, emotional distress)
- Special school setting
- ACT group and controls (school classes as usual)
- Self- and teacher-rated stress (Stress Survey Schedule, Groden et al., 2001)
- Self-rated emotional distress (Beck Youth Inventories, Beck, Beck, & Jolly, 2001)

## Self- and teacher-rated stress



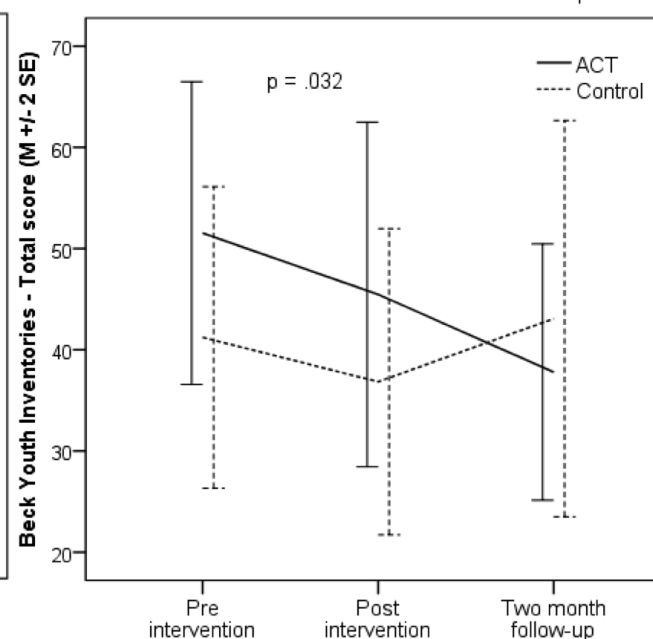
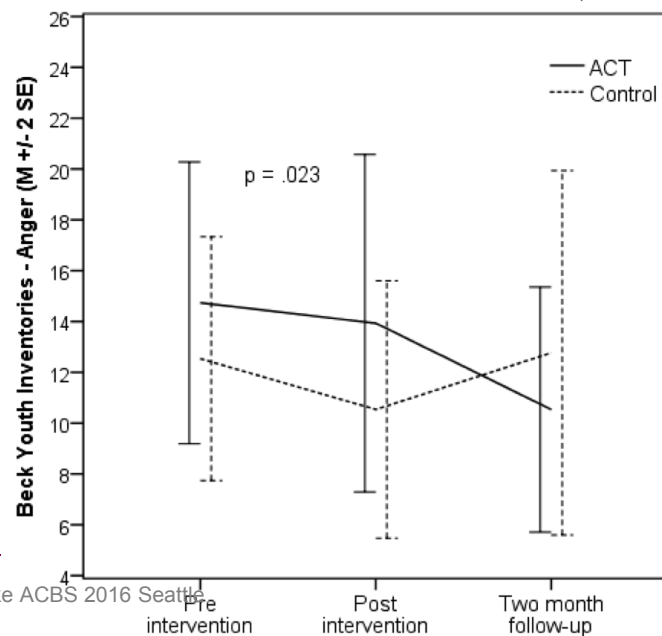
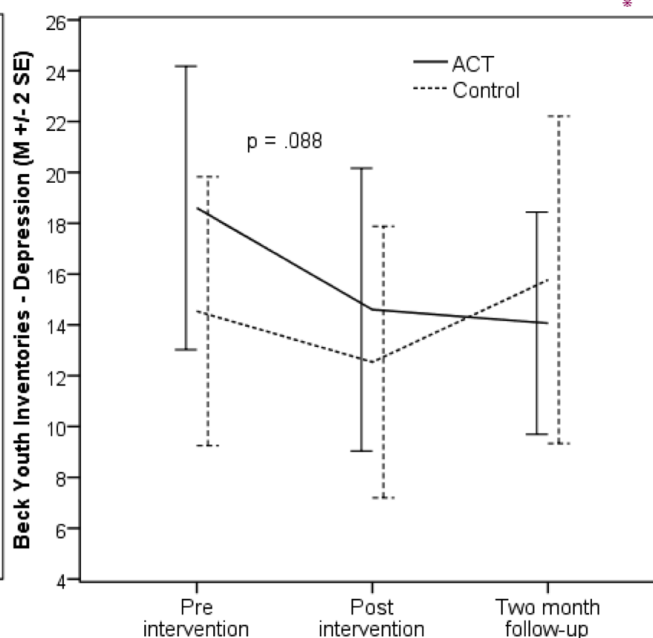
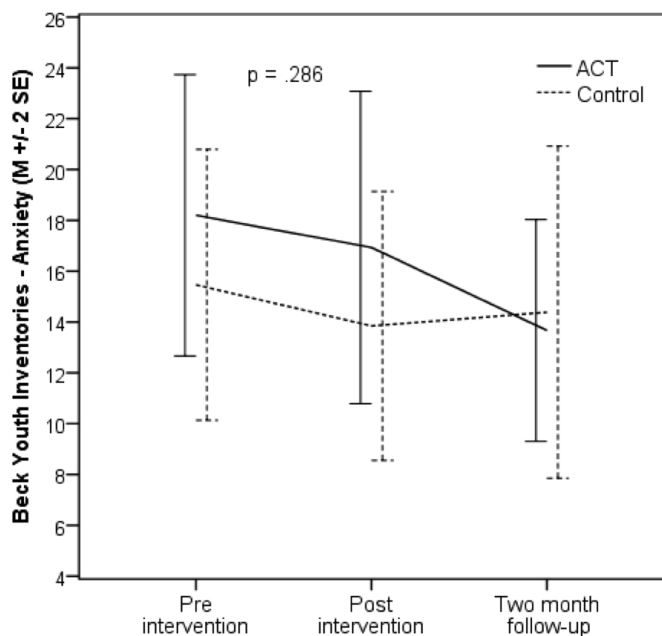
(Pahnke, Lundgren, Hursti, & Hirvikoski, *published in Autism*, October 2013)

# Self-rated emotional distress

(Pahnke, Lundgren, Hursti, & Hirvikoski, *published in Autism*, October 2013)



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## Study 2: ACT-based skills training group for adults with high-functioning ASD (pilot)

- Pilot study in open trial design in a psychiatric outpatient context
- 5 men and 5 women, with ASD, mean age: 49 (25-65)
- Psychiatric patients – depression, anxiety, stress and reduced quality of life
- Exclusion: psychosis, addiction, intellectual disabilities (>IQ 70)
- Objective: evaluate treatment acceptability, feasibility, and efficacy

# Assessments

- **Stress (PSS, Perceived Stress Scale)**
- **Quality of life (SWLS, Satisfaction With Life Scale)**
- Depression (BDI, Beck Depression Inventory)
- Anxiety (BAI, Beck Anxiety Inventory)
- Acceptability (TCQ, Treatment Credibility Questionnaire)

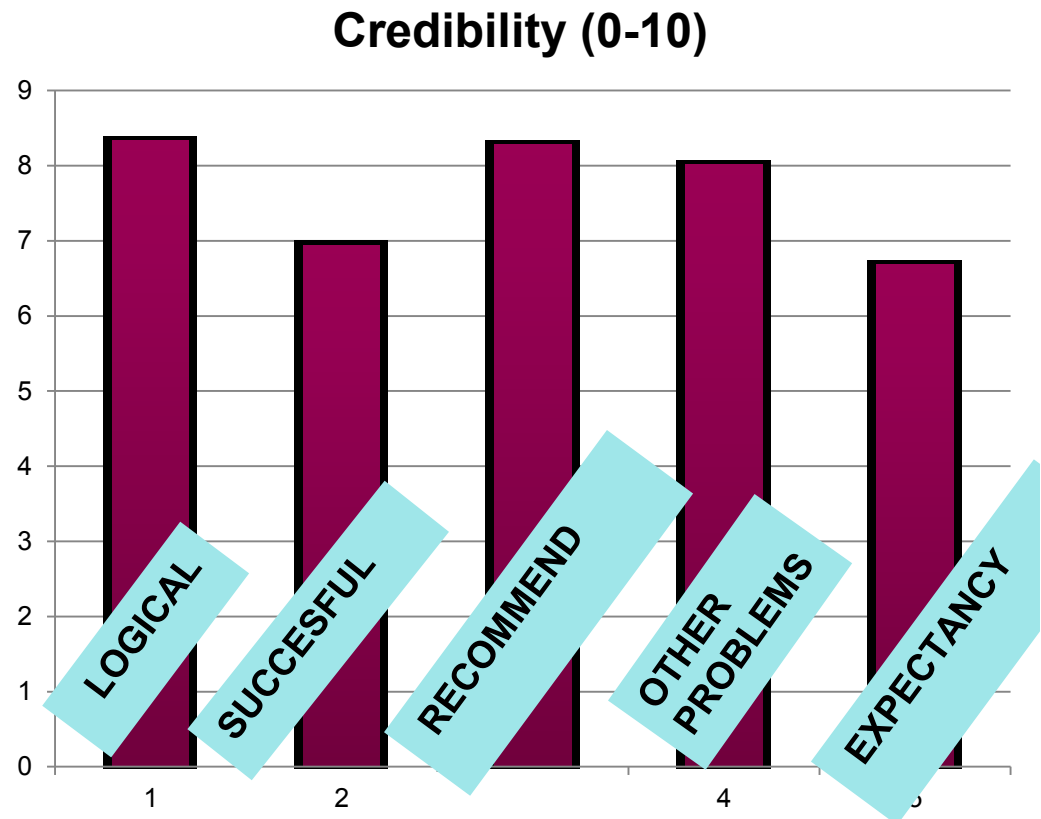
# Results

- Feasibility:

- 9/10 completed
  - Attendance 11/12 sessions

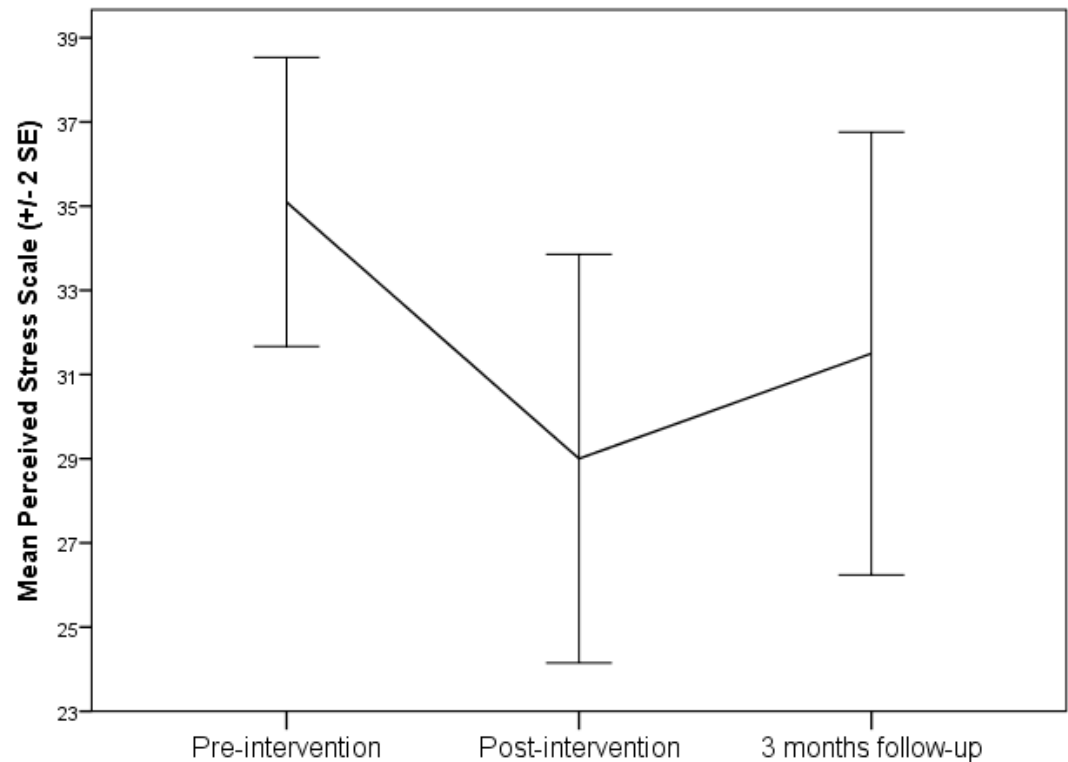
- Credibility (0-10):

- The treatment credibility was good



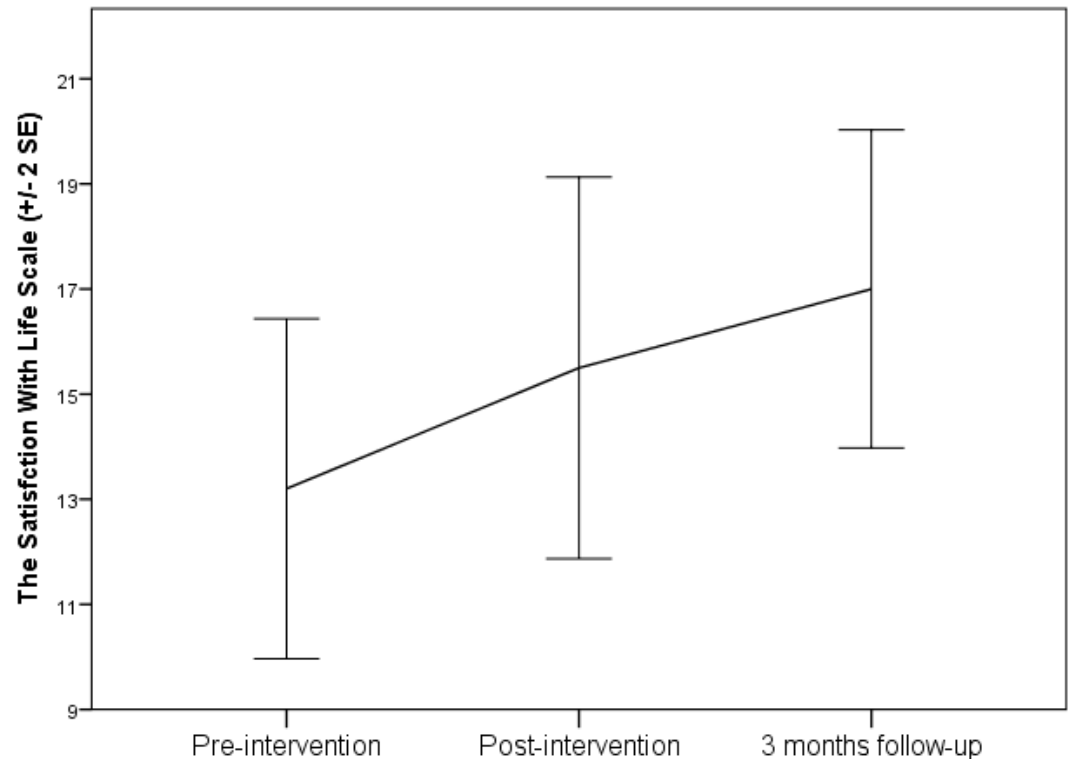
# Stress

Subjective stress was reduced from pre- to post-treatment ( $p=.023$ , Cohen's  $d=.92$ ).



# Quality of life

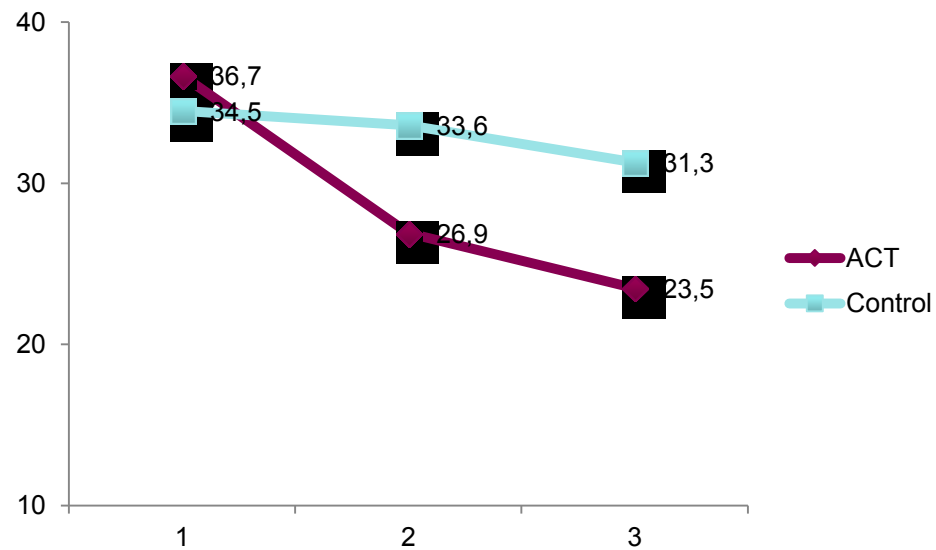
Quality of life increased from pre-treatment to 3-month follow-up ( $p=.026$ , Cohen's  $d=.77$ ).



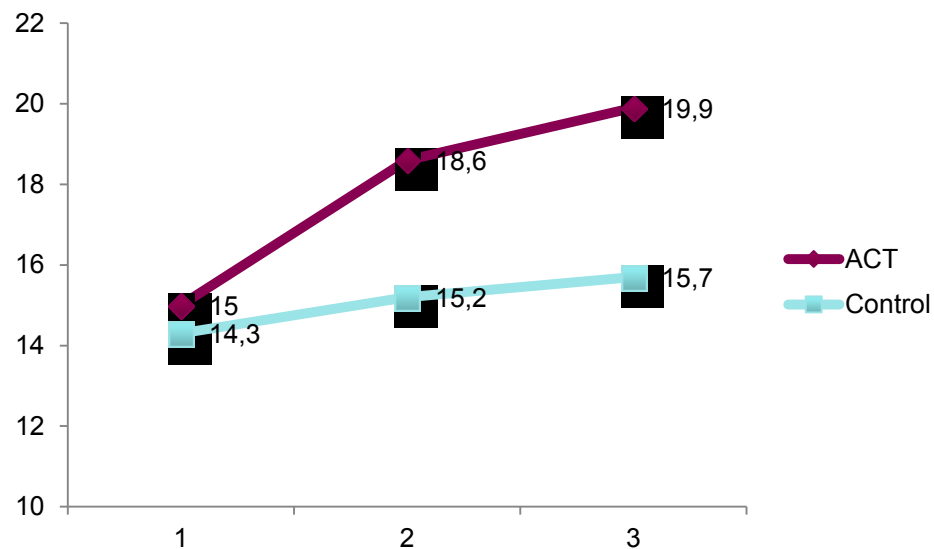
## Study 3: ACT-based skills training group for adults with high-functioning ASD (RCT)

- Randomized controlled trial
- Outpatient psychiatric hospital
- 38 patients with ASD (18-65 years)
- Pre, post, 6 months follow-up
- Primary measures: stress (PSS), quality of life (SWLS), autistic core symptoms (SRS)

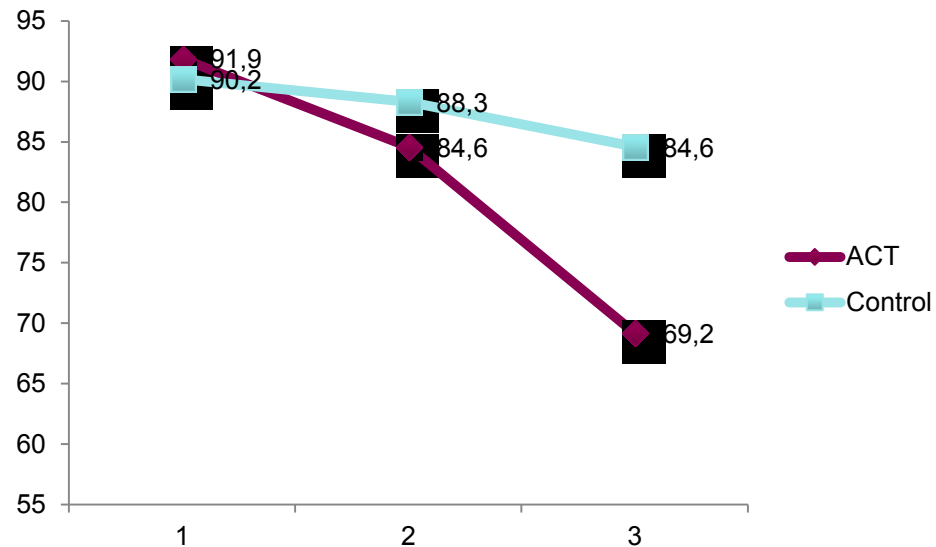
# Perceived Stress Scale (PSS)



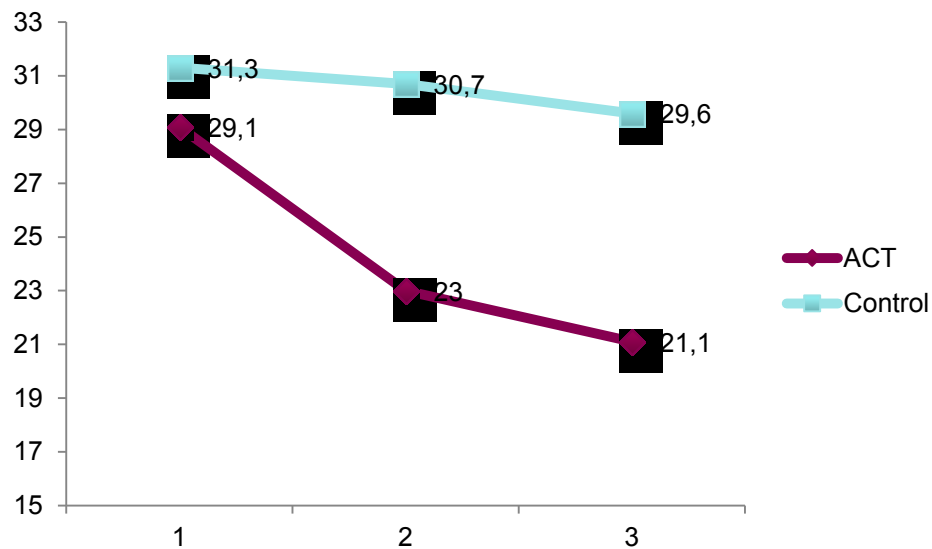
# Satisfaction With Life Scale (SWLS)



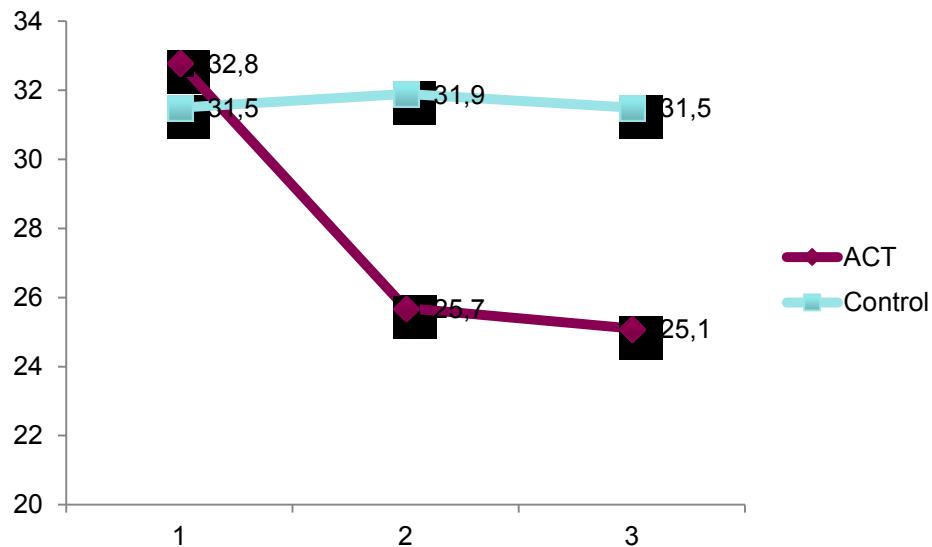
# Social Responsiveness Scale (SRS)



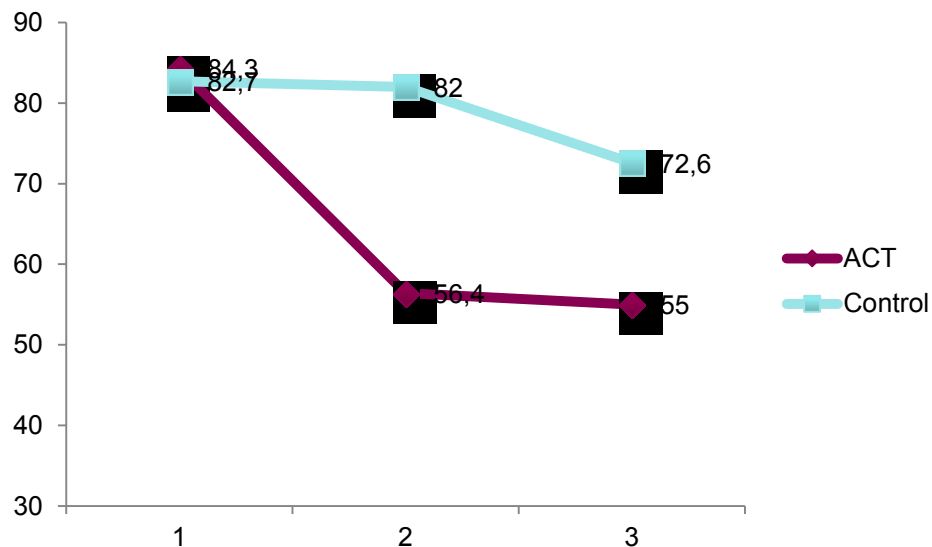
# Acceptance and Action Questionnaire (AAQ)



# Cognitive Fusion Questionnaire (CFQ)



# Cognitive and Behavioral Avoidance Questionnaire (CBAS)



# Conclusions

- Preliminary results support the ACT-based skills training group to be feasible and effective in high-functioning ASD
- Effect on stress, quality of life as well as core symptoms
- Effect on ACT-consistent variables as potential mediators
- Further evaluations are needed

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# Thanks!

Participants in all phases of the project

## Co-workers:

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Johan Bjureberg, PhD student/Psychologist

Tatja Hirvikoski, PhD/Neuropsychologist

Jussi Jokinen, PhD/MD

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