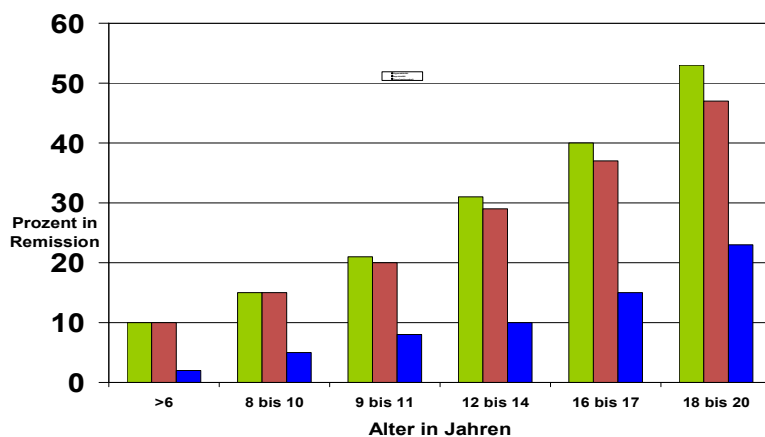


# ADHS im Erwachsenenalter- State of the Art

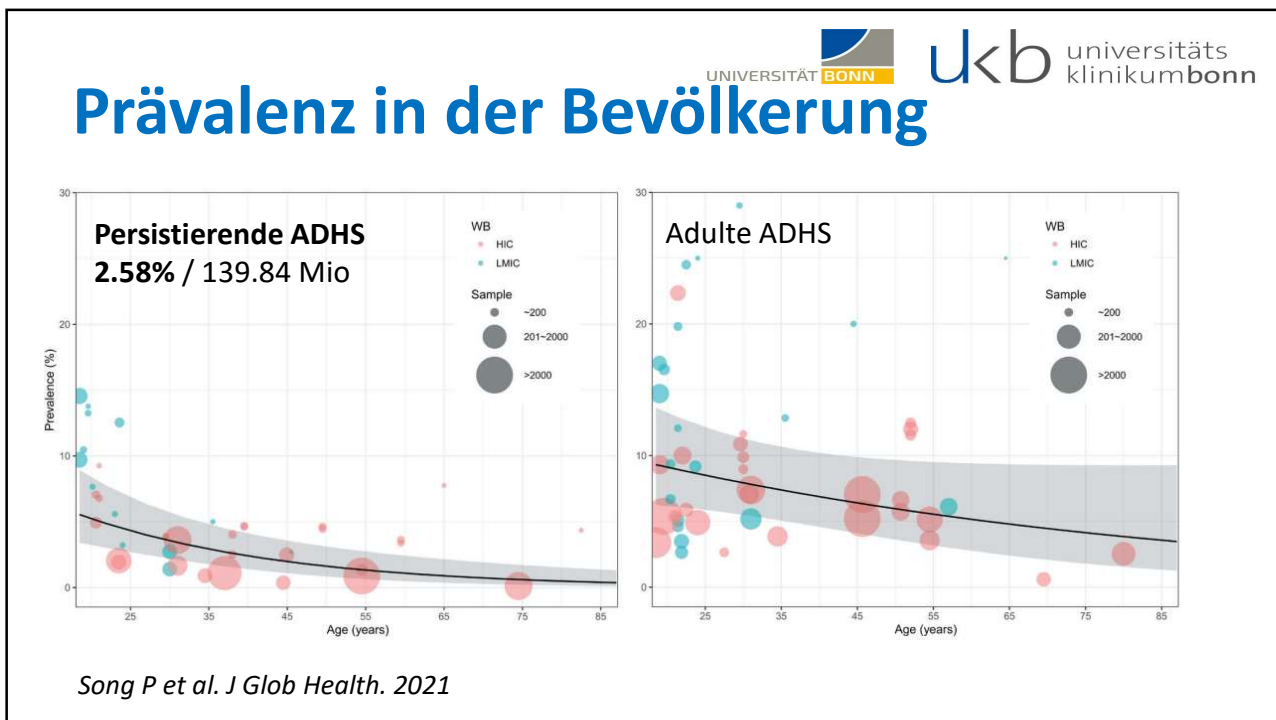
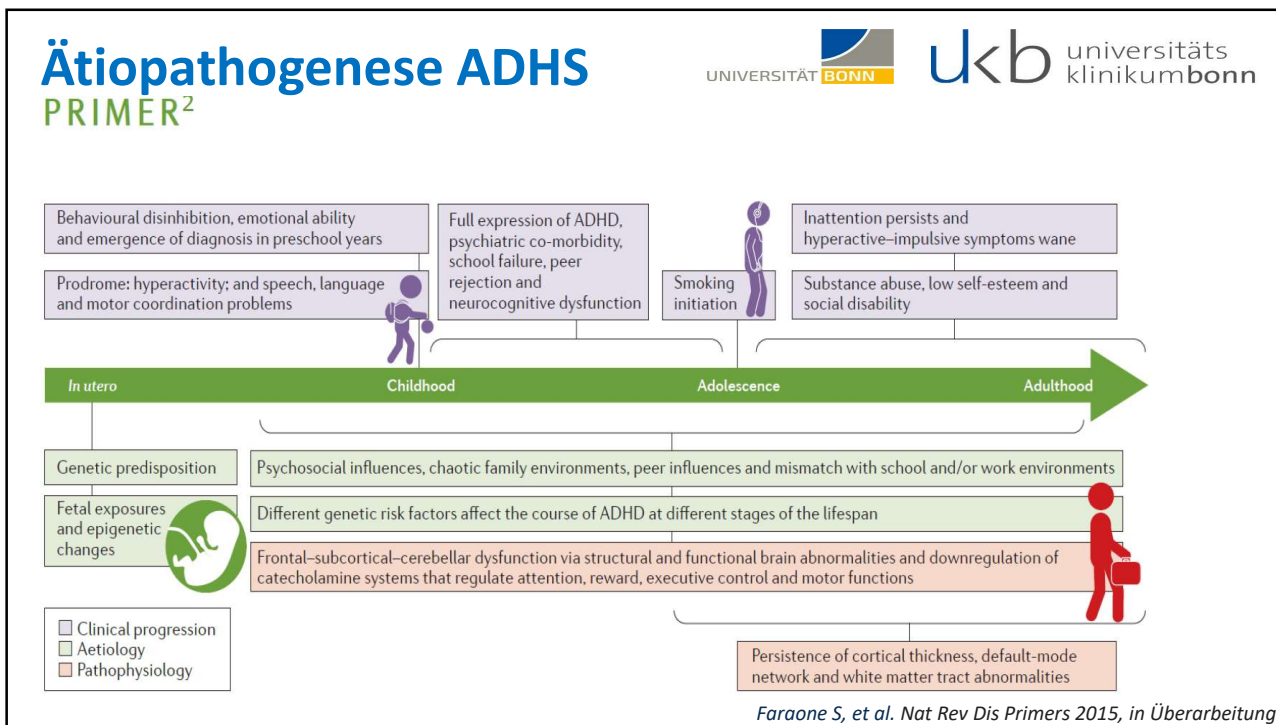
Alexandra Philipsen  
 Klinik für Psychiatrie und Psychotherapie  
 Universitätsklinikum Bonn - Oberberg, 27.06.2023



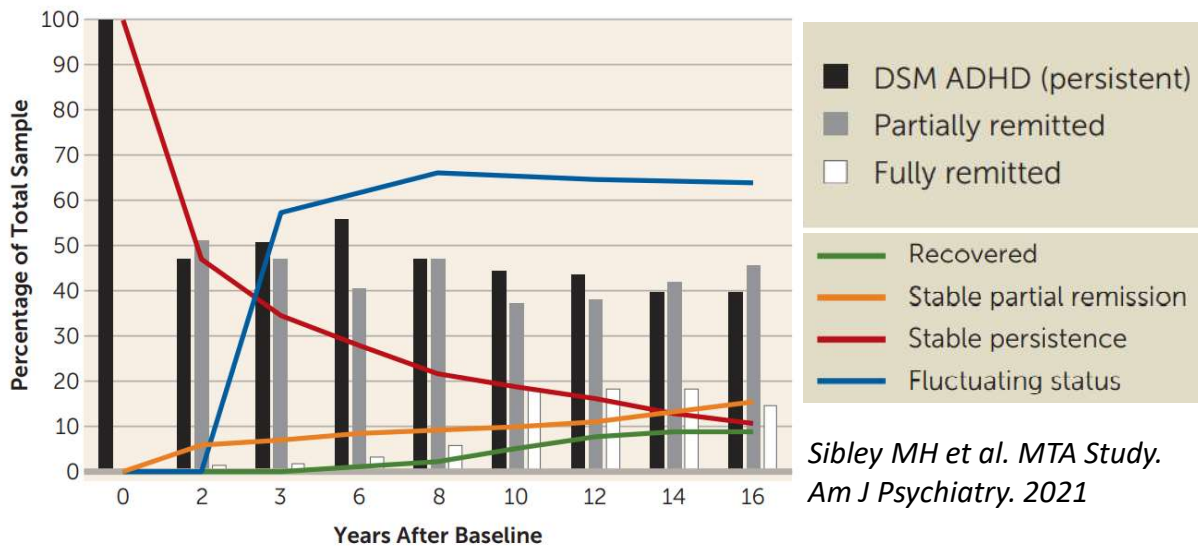
## Erste Studien bei Jungen



*Biederman et al, American Journal of Psychiatry, 2000*



## Persistenz? (10-25J)



## Diagnostik im Erwachsenenalter

- Strukturierte Anamnese (Biographie!)
- Standardisiertes Interview/Fragebogen
  - Quer- und Längsschnitt, funktionelle Einschränkungen
- Fremdanamnese (Schulzeugnisse,...)
- Neuropsychologische Testung ergänzend
  - (ggf. IQ,...), Verhaltensbeobachtung!
- Routinelabor, Untersuchung zur Differentialdiagnostik

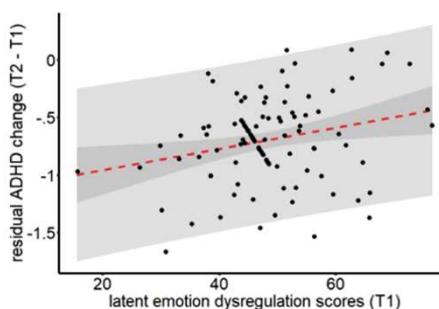
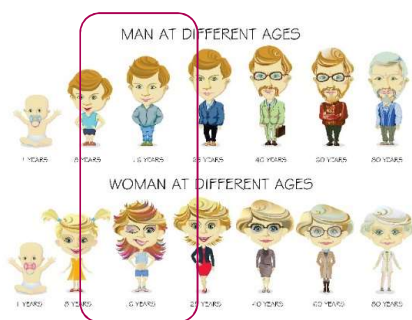


# Emotionsregulation und Persistenz

Viering T et al. Neuroimage. 2021

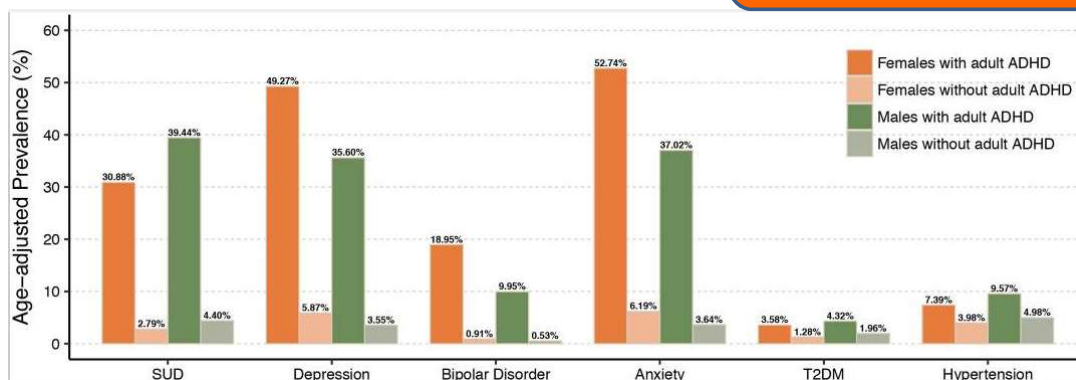
T1: 16.53 Jahre  
T2: 20.09 Jahre

Korrelation ED und Schwere der ADHS



# Psychische und somatische Erkrankungen

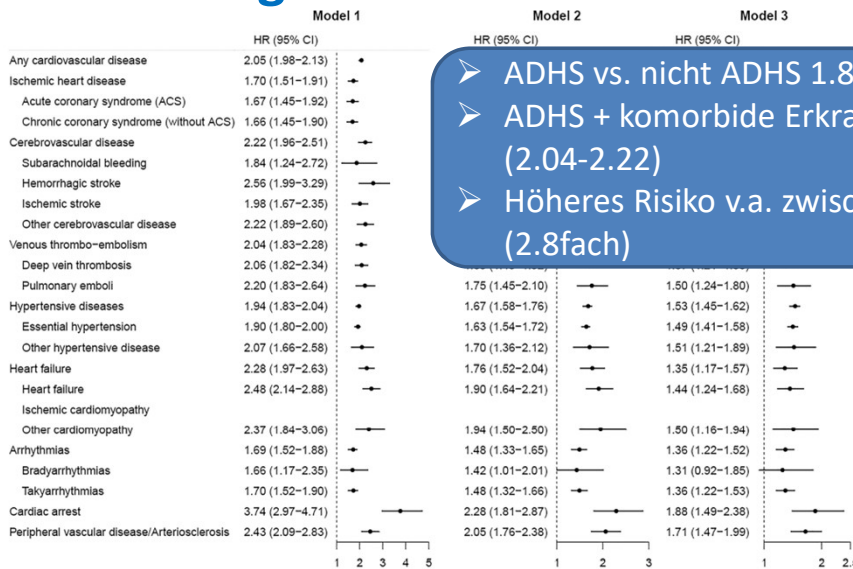
4,8 fach ↑ Risiko,  
kardiovaskuläre Erkrankungen,  
frühe Mortalität



Chen Q et al. PLOS ONE, 2018, (> 5,5 Mio Menschen, 18-64J)

\*Oliva F et al. J Psychiatr Res. 2021 Nov.

# Kardiovaskuläre Erkrankungen und ADHS



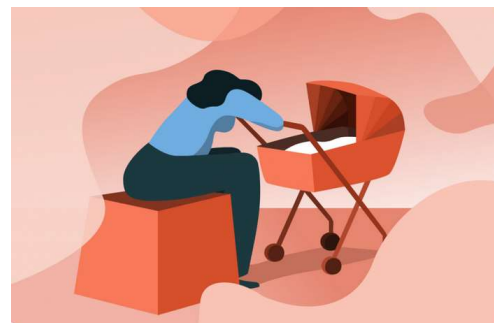
- ADHS vs. nicht ADHS 1.8 fach ↑ (1.68-1.97)
- ADHS + komorbide Erkrankung: 2.1 fach ↑ (2.04-2.22)
- Höheres Risiko v.a. zwischen 18-30 Jahren (2.8fach)



Li L et al. World Psychiatry. 2022

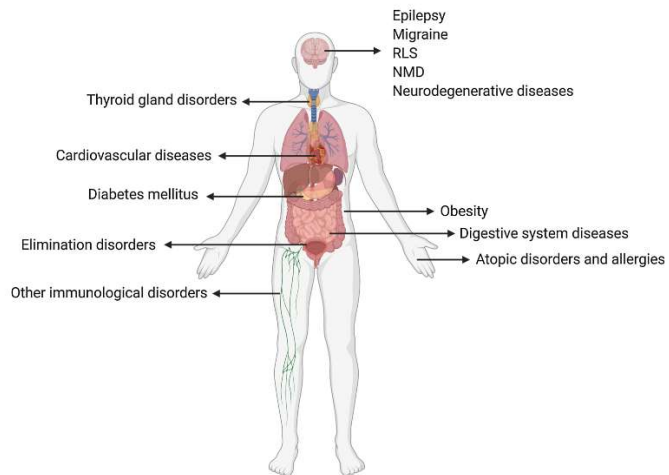
## Postpartale Depression bei Frauen mit ADHS nach der ersten Geburt

- Edinburgh Postnatal Depression Scale (EPDS), N= 85
- **57.6% ADHS versus 14.5%**



Dorani F et al. J Psychiatr Res. 2021; Haimov-Kochman R et al. Front Hum Neurosci, 2014

## Körperliche Erkrankungen bei ADHS über die Lebensspanne



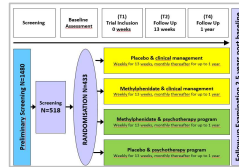
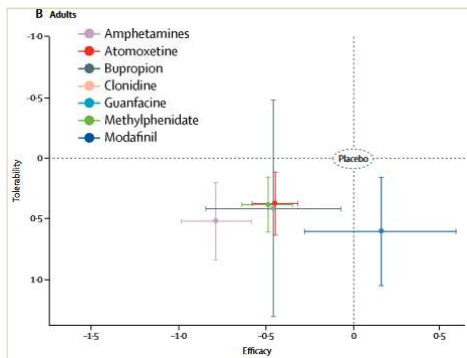
Adipositas bei jungen Frauen  
**40.2%** bei ADHS versus  
**15.4%** bei Non-ADHS  
 (N=140)  
 (Erstuntersuchung 6-12 J,  
 Folgeuntersuchung 16 Jahre  
 später)

Porter PA et al. *J Clin Child Adolesc Psychol.* 2022, Kittel-Schneider S et al. *Neurosci Biobehav Rev.* 2022

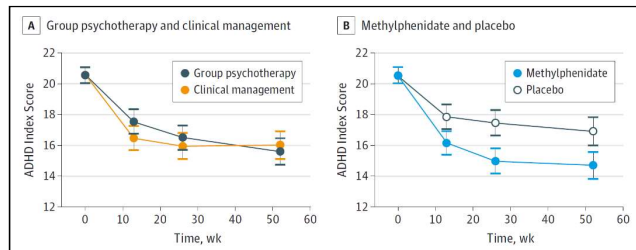
## Behandlung

# Exzellente Evidenz für Medikation...

(effect size, ES: ~0.8)

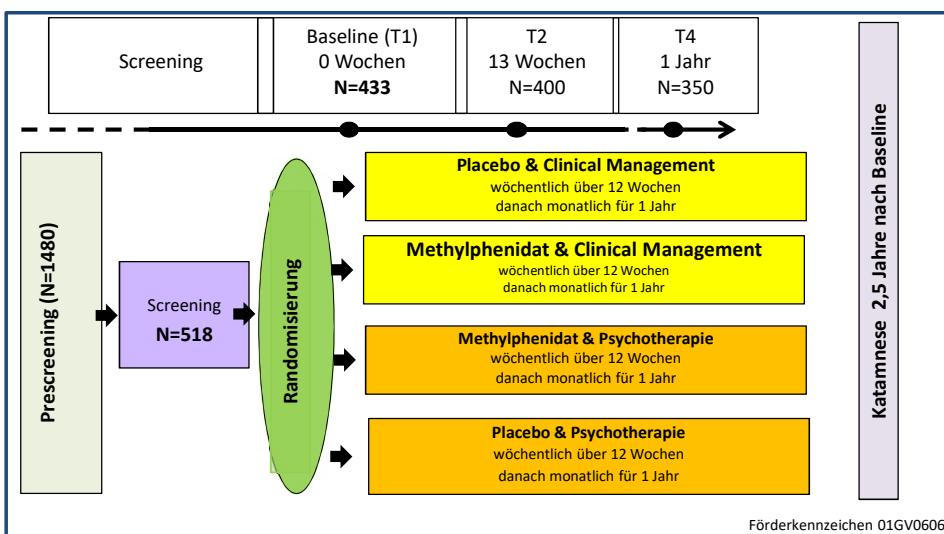


## Multimodale COMPAS Studie



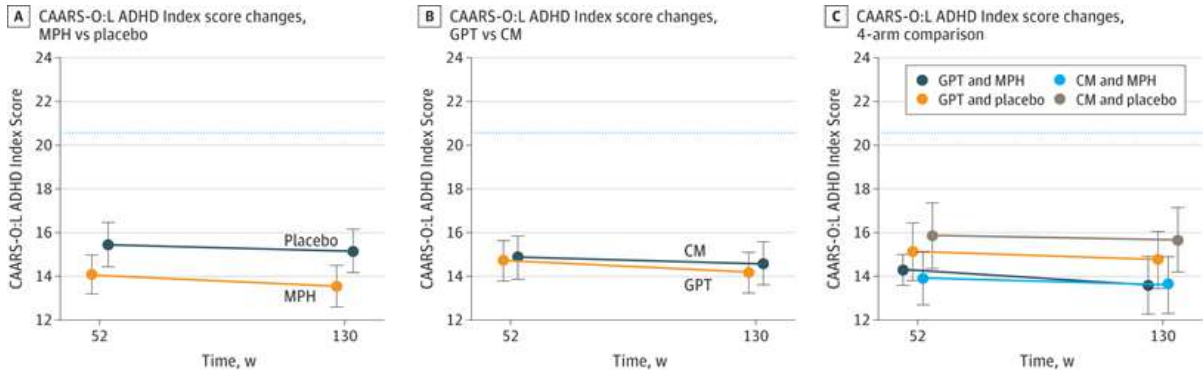
Cortese S et al. Lancet Psychiatry, 2018. Philipsen A et al. JAMA Psychiatry, 2015.

# COMPAS Comparison of Methylphenidate and Psychotherapy Study



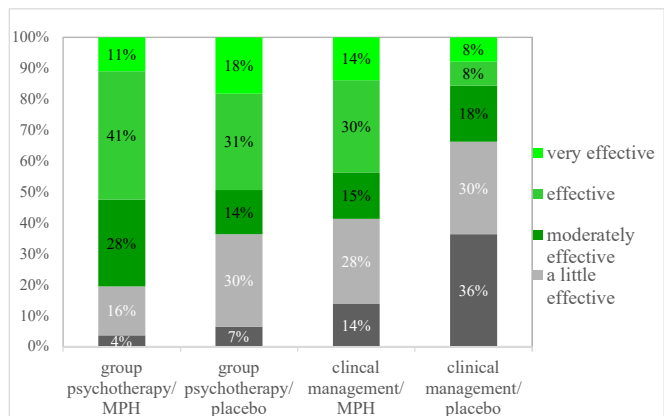
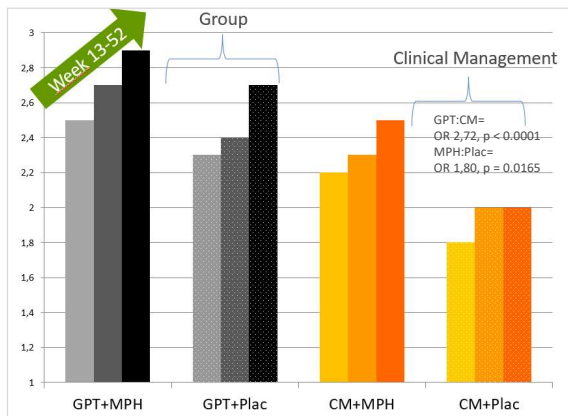
Philipsen et al. ADHD, 2013, 2014, JAMA Psychiatry 2018. JAMA Network Open 2019

# Katamnese



Lam et al. JAMA Network Open 2019

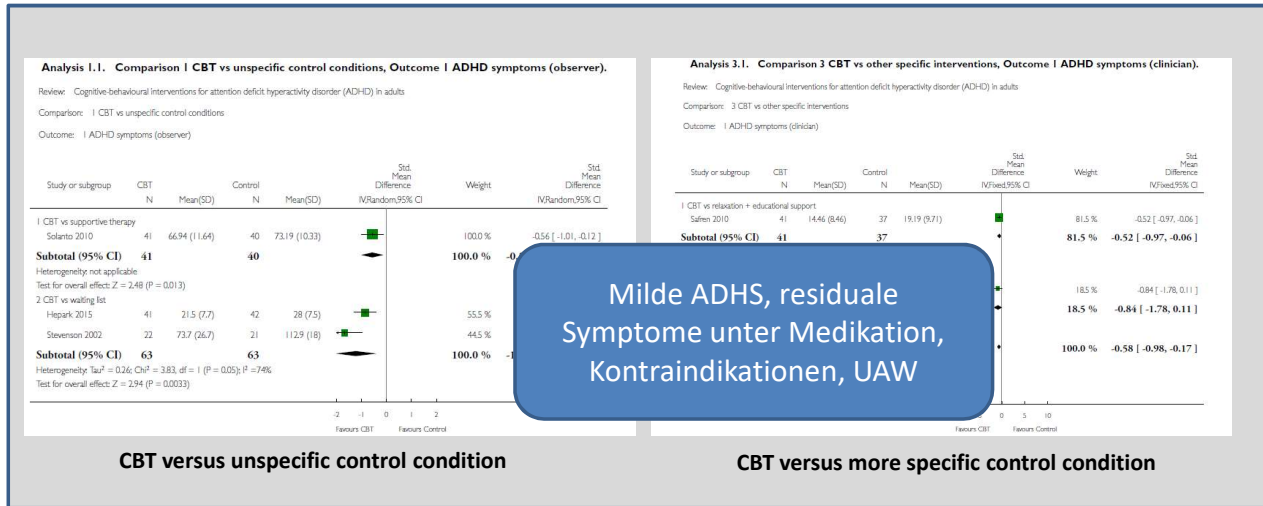
# Global assessment of functioning and patients' satisfaction.....



Philipsen A et al. JAMA Psychiatry, 2015, Groß et al. J Atten Dis, 2019.



# Herausforderung in der Psychotherapieforschung..

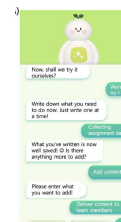
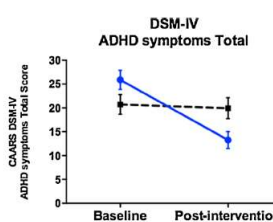
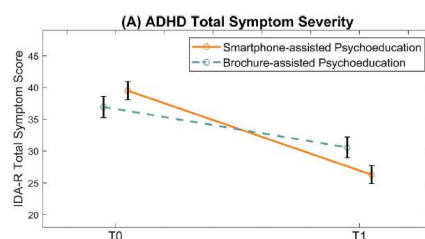


Cochrane Database Syst Rev. 2018;3(3):CD010840

# eHealth Studies



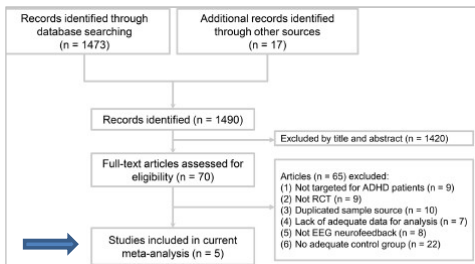
- Selaskowski B et al., *Psychiatry Research*, 2022
  - **Smartphone app** to support psychoeducation group vs. paper booklets (N = 60; 19-61 y).
  - Significant superiority of app for ADHD symptom reduction (inattention & impulsivity): 33.4% vs.17.3%
- Shelton CR et al., *J Technol Behav Sci*, 2022
  - **Internet-based intervention** (IBI) for young adults (N = 235; 18-35)
  - Majority of 59% preferred internet-based interventions over face-to-face
- Jang S et al., *Int J Med Inform.*, 2021
  - CBT & psychoeducation via **smartphone app** chatbot (N = 46; 19-60 y.)
  - Significant superiority of chatbot group vs. control group for ADHD symptom reduction



Selaskowski B et al., *Psychiatry Res.* 2022 Aug 20;317:114802; Shelton CR et al., *J Technol Behav Sci.* 2022 May 17:1-11; Jang S et al., *Int J Med Inform.* 2021 Jun;150:104440

# Neurofeedback

## Heterogenous protocols...



Metaanalysis in Fan HY et al. Sci Rep. 2022

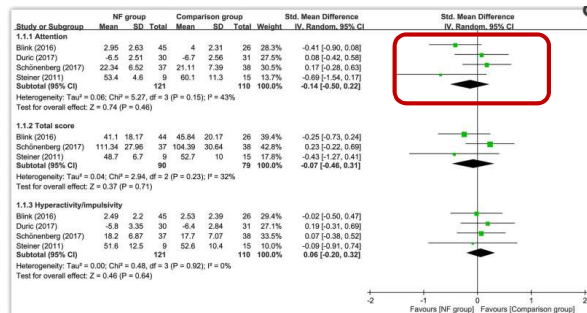
Zinnov et al. *Trials* (2018) 19:260  
<https://doi.org/10.1186/s13065-018-2665-9>

Trials

STUDY PROTOCOL Open Access

### ESCaLate – Adaptive treatment approach for adolescents and adults with ADHD: study protocol for a randomized controlled trial

Toivo Zinnov<sup>1\*</sup>, Tobias Baraschewski<sup>2</sup>, Andreas J. Fallgatter<sup>1,3</sup>, Carolin Jenkner<sup>4</sup>, Florence Philipp-Wiegmann<sup>1</sup>, Alexandra Philippen<sup>1</sup>, Wolfgang Retz<sup>5</sup>, Esther Sobanski<sup>6,7</sup>, Johannes Thome<sup>8</sup> and Michael Rösler<sup>1</sup>



# Brain Stimulation (tDCS)

## JAMA Psychiatry

### RCT: Transcranial Direct Current Stimulation vs Sham for the Treatment of Inattention in Adults With Attention-Deficit/Hyperactivity Disorder

**POPULATION**  
34 Men, 30 Women

Adults with attention-deficit/hyperactivity disorder (ADHD) not receiving stimulant drug treatment  
**Mean age, 38.3 y**

**INTERVENTION**  
64 Patients randomized

**32 Active tDCS**  
30-min Daily sessions of home-based transcranial direct current stimulation (tDCS) for 4 wk

**32 Sham tDCS**  
30-min Daily sessions of sham home-based tDCS for 4 wk

**FINDINGS**

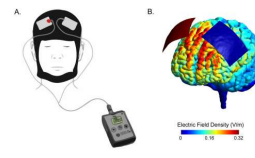
Daily treatment with a home-based tDCS device over 4 wk significantly improved symptoms of inattention compared to sham tDCS.

**Mean (SD) 4-wk CASRS-I score.**  
 Sham tDCS, 23.63 (3.97)  
 Active tDCS, 18.88 (5.79)  
**Treatment by time interaction for CASRS-I (β interaction)**  
 -3.18 (95% CI, -4.60 to -1.75); P<.001

**SETTINGS / LOCATIONS**  
1 Hospital in Brazil

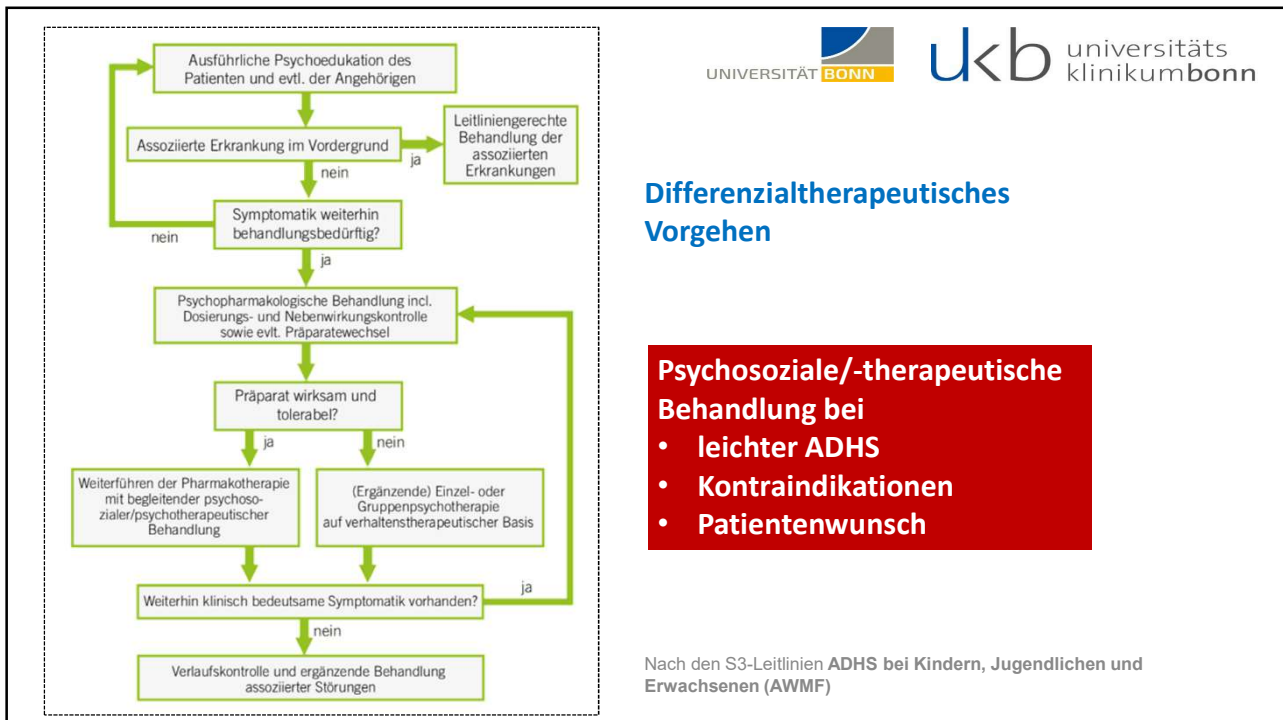
**PRIMARY OUTCOME**

Symptoms of inattention, evaluated with the clinician-administered version of the Adult ADHD Self-report Scale version 1.1 (CASRS-I; 9 questions on a scale from 0-4, with higher scores indicating increased symptoms)



Leffa DT, Grevet EG, Bau CHD, et al. Transcranial direct current stimulation vs sham for the treatment of inattention in adults with attention-deficit/hyperactivity disorder: the TUNED randomized clinical trial. *JAMA Psychiatry*. Published August 3, 2022. doi:10.1001/jamapsychiatry.2022.2055

See also Review in Rubia K et al. *Cells*, 2021; Meta-analysis in Salehinejad MA et al. *PLoS One*. 2019.



## Zusammenfassung

- Persistenz der ADHS in das Erwachsenenalter ↔ Behandlungsabbrüche in Transition
- ADHS + Emotionale Dysregulation → Borderline ?
- Komorbidität / assoziierte psychische und somatische Erkrankungen → Beeinträchtigung ↑
- Medikation / Stimulanzien beste Evidenz und gute Verträglichkeit
- Psychotherapie v.a. bei residualer ADHS, Alltagsfunktion, internalisierenden Symptomen und ED
- eHealth sinnvoll und wirksam
- Neurofeedback, Brain Stimulation (tDCS, TMS), Sport,.....
- Lebensführung (Habitat, Struktur, körperliche Aktivität,..)

## Ausblick

- Systematic and comprehensive network meta-analysis
- Comparison of medication and any non-pharmacological intervention
  - ADHD, emotion regulation and quality of life...

*Cortese S, Del Giovane C, Chamberlain S, Philipsen A, Young S, Bilbow A, Cipriani A. Pharmacological and non-pharmacological interventions for adults with ADHD: protocol for a systematic review and network meta-analysis. BMJ Open. 2022*

## Vielen Dank für Ihre Aufmerksamkeit

