Nine everyday situations, nine different forms of attention

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Objectives

The aim of this study was to develop a questionnaire for the assessment of everyday attentional capacities in adults: the Everyday Life Attention Scale (ELAS). Its developmental was inspired by multi-component theories of attention and clinical neuropsychology guidelines for the assessment of attention.

The nine ELAS situations

Reading | Lecture | Cooking
Movie | Conversation | Cleaning up
Activity | Assignment | Driving

The items of the ELAS

Each situation was sketched and followed by the same questions about different components of attention.

Sustained attention: "How long can you carry this out without having a break (so without a break or mind wandering)?";
Focused attention: "How well can you focus on this?";
Selective attention: "How well can you focus on this if there is distraction around you (e.g. children playing)?";
Divided attention: "How well can you concentrate if you have to do something else at the same time (e.g. talking to a friend about a different subject)?";
Motivation: "How motivated are you to perform the task well (so to take in all details)?".

11-point Likert scales with reference labels were used, e.g.:

0 = no motivation to perform well
50 = motivated to perform the task for 50% correctly
100 = motivated to perform the task for 100% correctly

0 10 20 30 40 50 60 70 80 90 100

Psychometrics

Factor structure (CFA) (N = 1206)

Compared to a 1-factor model and multi-component attention 3-/4-/5-factor models, the situation-specific 9-factor model had the most optimal fit.
Fit indices: $x^2(866)$ = 11719, p<.001; x^2/df = 13.5; RMSEA = 0.14; CI-RMSEA = .14-.15; SRMR = .08; CFI = .86

Reliability (N = 1206)

Cronbach's α = .77 - .87 (good reliability)
Intercorrelations r = .22 - .49 (small and medium)
4-week test-retest r(n = 43) = .51 - .67 (good reliability, except Lecture .48 and Cooking .32)

Validity (N = 1206)

Small to medium correlations with executive dysfunctioning (BDEFS), memory self-efficacy (MSEQ) and ADHD rating scale (ARS).
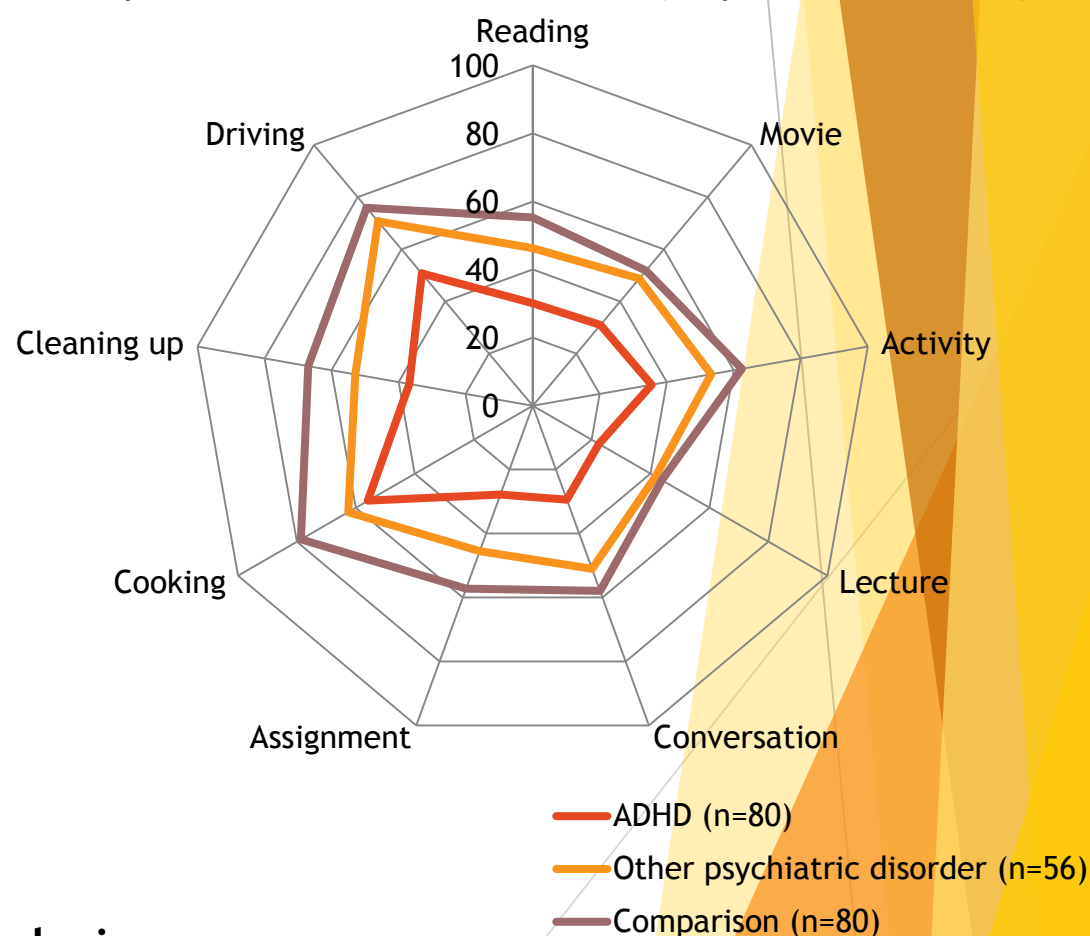
Sensitivity (N = 216)

Patients with ADHD score lower (with large effect sizes) than comparison in all situations, see Figure.
Attentional impairments in Reading, Activity, Conversation, and Assignment were specific for ADHD.

Figure

Group means on the ELAS situations (11-point scale scores)

ADHD (n=80)
Other psychiatric disorder (n=56)
Comparison (n=80)

Conclusions

- The ELAS can reliably measure attention in everyday life by situation-specific scales.
- The ELAS scales are sensitive for attentional difficulties in adult patients with ADHD.
- The ELAS can complement assessment of adult ADHD and assist in treatment evaluation.
- Norms of ~2000 people and automated scoring forms are underway.

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