

# Ageing with Autism Traits: Examining Ageing in the Broad Autism Phenotype.

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## Background

- The Broad Autism Phenotype (BAP) describes sub-clinical autism spectrum disorders (ASD) traits.
- As ASD was initially identified in the 1940s, only now can we examine ageing in this population.
- Diagnosis of ASD in adulthood is becoming more common.
- With the increasing ageing population, there are growing numbers of older adults with ASD.
- Examining the BAP in older adults can provide information about ageing with ASD traits.

## Hypotheses

- Elevated BAP traits will be associated with:
  - Greater executive function difficulties,
  - Increased depression and anxiety symptoms,
  - Lower quality of life.

## Methods

### Participants:

33 community dwelling adults aged  $\geq 60$  years.

17 above cut-off (3.15) on BAPQ (BAP group); 16 below cut-off, control older adults (COA).

No group differences observed in age, sex, education or FSIQ.

Table 1: Group demographics, mean (standard deviation)

	BAP (n=17)	COA (n=16)	Group differences
Age	72.53 (8.21)	72.25 (8.13)	$F = .010, p = .922$
Sex (m,f)	7,10	5,11	$\chi^2 = .351, p = .554$

### Neuropsychological Assessments:

**Executive Function:** DKEFS Trail Making, WMS Verbal Fluency.

**Working Memory:** WMS Digit Span (Forward/Backward), WMS Number-Letter Sequencing, WMS Logical Memory.

### Self-report Measures:

**BAP Traits:** Broad Autism Phenotype Questionnaire (BAPQ)

**Mood:** Geriatric Depression Scale (GDS); Beck Anxiety Inventory (BAI).

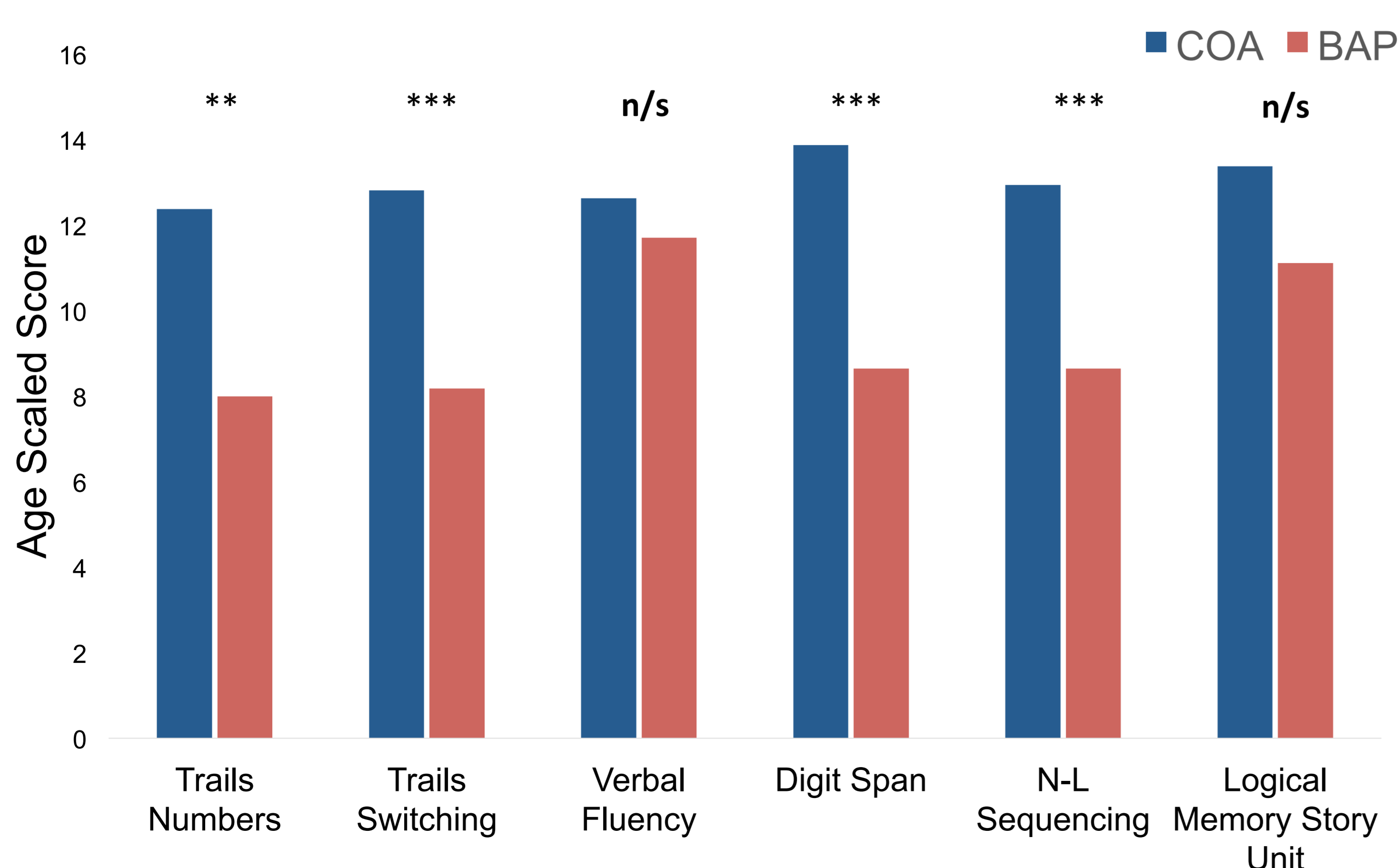
**Quality of Life:** Warwick-Edinburgh Mental Well-being Scale (WEMWBS).

**Social Impairment:** Social Responsiveness Scale (SRS)

**Alexithymia Traits:** Bermond-Vorst Alexithymia Questionnaire (BVAQ).

## Results, Group differences

Figure 1: Group differences on Neuropsychological Assessments



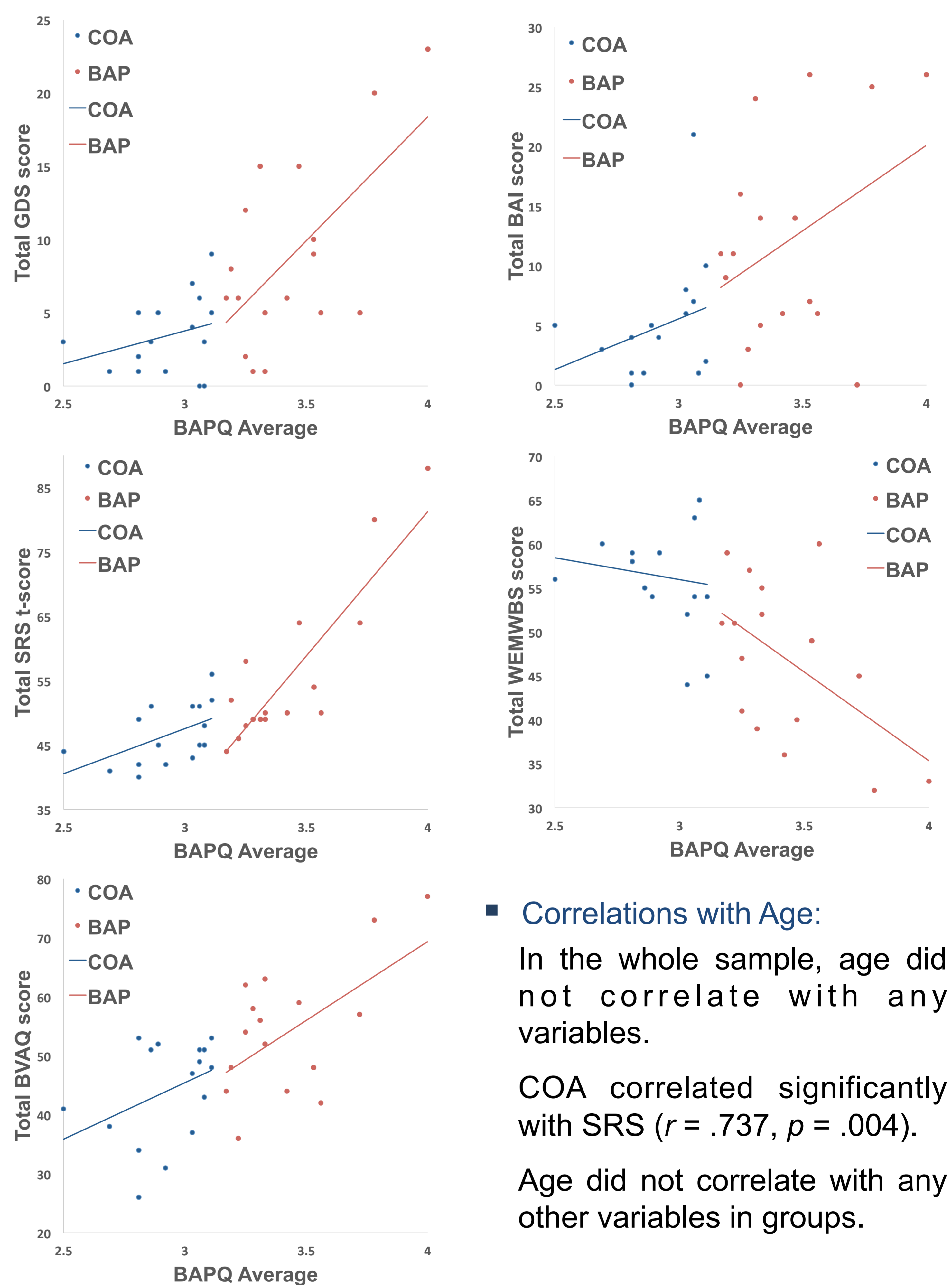
\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

## Results, Correlation Analyses

Table 2: Correlations with BAPQ by Group

	BAP (n=17)	COA (n=16)	Total (n=33)
GDS	$r = .615, p = .009^{**}$	$r = .249, p = .352$	$r = .644, p = .001^{***}$
BAI	$r = .374, p = .139$	$r = .221, p = .410$	$r = .520, p = .002^{**}$
SRS	$r = .729, p = .001^{***}$	$r = .782, p = .001^{***}$	$r = .785, p = .001^{***}$
WEMWBS	$r = -.532, p = .028^*$	$r = -.107, p = .692$	$r = -.613, p = .001^{***}$
BVAQ	$r = .576, p = .016^*$	$r = .337, p = .202$	$r = .629, p = .001^{***}$

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$



### Correlations with Age:

In the whole sample, age did not correlate with any variables.

COA correlated significantly with SRS ( $r = .737, p = .004$ ).

Age did not correlate with any other variables in groups.

## Conclusion

- BAP traits exist across a continuum in later-life but do not increase with age.
- BAP group experienced greater executive function difficulties across several domains compared to COA group.
- BAP traits were associated with higher prevalence of depression, anxiety, social impairment and alexithymia, and lower well-being.
- Older adults with BAP traits may be at greater risk for age-related decline.
- Results suggest that ageing with autism spectrum disorders may represent additional risk.

