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 ≥ 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)

<table>
<thead>
<tr>
<th></th>
<th>BAP (n=17)</th>
<th>COA (n=16)</th>
<th>Group differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>72.53 (8.21)</td>
<td>72.25 (8.13)</td>
<td>F = .010, p = .922</td>
</tr>
<tr>
<td>Sex (m,f)</td>
<td>7,10</td>
<td>5,11</td>
<td>χ² = .351, p = .554</td>
</tr>
</tbody>
</table>

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](image)

Results, Correlation Analyses

Table 2: Correlations with BAPQ by Group

<table>
<thead>
<tr>
<th></th>
<th>BAP (n=17)</th>
<th>COA (n=16)</th>
<th>Total (n=33)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS</td>
<td>r = .615, p = .009**</td>
<td>r = .249, p = .352</td>
<td>r = .644, p = .001***</td>
</tr>
<tr>
<td>BAI</td>
<td>r = .374, p = .139</td>
<td>r = .221, p = .410</td>
<td>r = .520, p = .002**</td>
</tr>
<tr>
<td>SRS</td>
<td>r = .729, p = .001***</td>
<td>r = .782, p = .001***</td>
<td>r = .785, p = .001***</td>
</tr>
<tr>
<td>WEMWBS</td>
<td>r = -.532, p = .028*</td>
<td>r = -.107, p = .692</td>
<td>r = -.613, p = .001***</td>
</tr>
<tr>
<td>BVAQ</td>
<td>r = .576, p = .016*</td>
<td>r = .337, p = .202</td>
<td>r = .629, p = .001***</td>
</tr>
</tbody>
</table>

* 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.