The M-ASD: A reliable self-report tool for detecting underrecognized autistic characteristics in adults

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Background

- Autism = often underrecognized when autistic characteristics are less overt, especially in women
- Identification can enhance wellbeing & support
- M-ASD = self-report screener (50 items), also aiming at internal ASD expression + social camouflaging

Objective

To validate the M-ASD

Methods

Design: retrospective analysis of diagnostic data

Sample

- Clinical group
  - Adults referred for suspected ASD (n = 1260)
  - M age = 33.3, SD = 11.8; 62% women
  - Subgroup ASD: n = 799
  - Subgroup non-ASD: n = 461;
  - Test-retest subgroup: n = 68, interval: 2-8 weeks
- General population sample (online)
  - n = 181; M age = 41.8, SD = 11.4; 82% women; exclusion criteria: AQ-10 > 5, suspected or confirmed ASD diagnosis, or autistic 1st/2nd-degree relative

Measures: M-ASD, AQ-50 & BRIEF-A

Analyses

- Exploratory factor analysis
- Internal consistency (Cronbach's α), test-retest reliability, construct validity (Pearson correlations), group differences (ANOVA, t-tests), criterion validity (ROC analyses)

Results

5 factors (47% explained variance)
(1) Social contact, (2) Social cognition, (3) Flexibility in thinking & behavior, (4) Sensory & emotional sensitivity, (5) Social camouflaging

Reliability

- Excellent internal consistency
  - Total score: α = .955
  - Subscales: α = .824–.879
- High test-retest reliability
  - Total score: r = .917 (95% CI [.868, .948])
  - Subscales: r = .860–.903

Construct validity

- Strong correlations (convergent validity)
  - AQ-50: r = .760
  - BRIEF-A Shift: r = .676
- Weak correlations (divergent validity)
  - BRIEF-A Task monitor: r = .282
  - BRIEF-A Organization of materials: r = .194

Group differences

- Significant differences in M-ASD scores
  - ASD > non-ASD > general population
  - (all p < .001, large η^2)
- Women > men within clinical groups
  - consistent with sex-specific autistic expression

Diagnostic accuracy

- ASD vs non-ASD
  - AUC = .734 (95% CI [.709, .758]), sensitivity 59%, specificity 79%, PPV 83%, NPV 52%, optimal cut-off > 73 (men >66, women >75)
- ASD vs general population
  - AUC = .989 (95% CI [.980, .994]), sensitivity 93%, specificity 100%, PPV 100%, NPV 75%, optimal cut-off > 39 (men >37, women >39)

M-ASD: Rethinking autism screening with sex- and setting-specific cut-offs

Conclusion

- Clear five-factor structure
- Robust psychometric properties
- Good discrimination between groups (ASD, non-ASD, general population)
- Does not identify all autistic individuals but effectively detects those likely to meet diagnostic criteria
- M-ASD = reliable screening tool for adults, with population- and sex-specific cut-offs