The **psychometric qualities** of the **A-Sleep** questionnaire are **good**

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BACKGROUND

Sleep problems
- occur in 50-80% of autistic adults [1]
- exacerbate autistic behaviors, increase anxiety symptoms, and lead to emotional stress and behavioral problems[2]
- are most significant predictor of lower quality of life in autistic people[3]

Current psychiatric sleep questionnaires
- do not address specific sleep issues of autistic people
- are not autism-friendly
- sleep problems are not adequately identified in autistic adults

To address this
- A-Sleep questionnaire was developed[4], specifically for sleep issues in autistic adults
  - items are developed based on literature review, formulated in a theory-driven manner, reviewed by autistic adults and autism professionals

The A-Sleep is a new tool, its psychometric properties need to be validated, considering both reliability and validity.

METHODS

Instruments: self-report questionnaires
- A-Sleep: measures sleep problems in autistic adults
- BRIEF-A (divergent validity): measures executive functions in adults, Subscales: Taks Monitor & Organization of Materials
- HSDQ (convergent validity): assesses sleep disorders
- M-ASD (construct validity): measures autistic traits in adults
- AQ-10 (autism severity, short): measures autistic traits in adults

Participants (N = 177)

Clinical group (n = 122) undergoing ASD diagnostics

ASD group (n = 68) male (n = 21, 31%) female (n = 47, 69%)

Non-ASD group (n = 54) male (n = 22, 41%) female (n = 32, 59%)

Control group (n = 55) male (n = 11, 20%) female (n = 44, 80%)

Instruments: A-Sleep (M_1, n = 122; M_2, n = 45) M-ASD (n = 122) HSDQ (n = 84) BRIEF-A (n = 93)

Instruments: A-Sleep (n = 55) M-ASD (n = 55) AQ-10 (n = 55)

Figure 1: Research sample

RESULTS

Reliability
Internal consistency
- Cronbach's α = .914
Test-retest reliability
- r = .89 (p <.001)

Validity
Construct validity:
- with M-ASD: r = .48 (95% BHI = .33-.60)
- scores of A-Sleep: clinical groups > control group
  - ASD (M = 76.71, SD = 25.49), Non–ASD (M = 72.64, SD = 28.07), Control (M = 42.80, SD = 16.92)
  - Anova: $F(2,174)$ = 34.19, p <.001, η^2 = .28
  - Post hoc contrasts: ASD > Control (p <.001), Non-ASD > Control (p <.001)
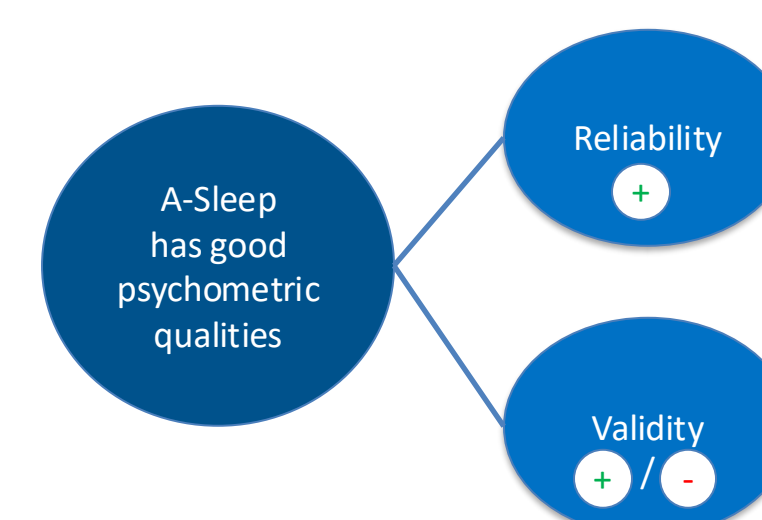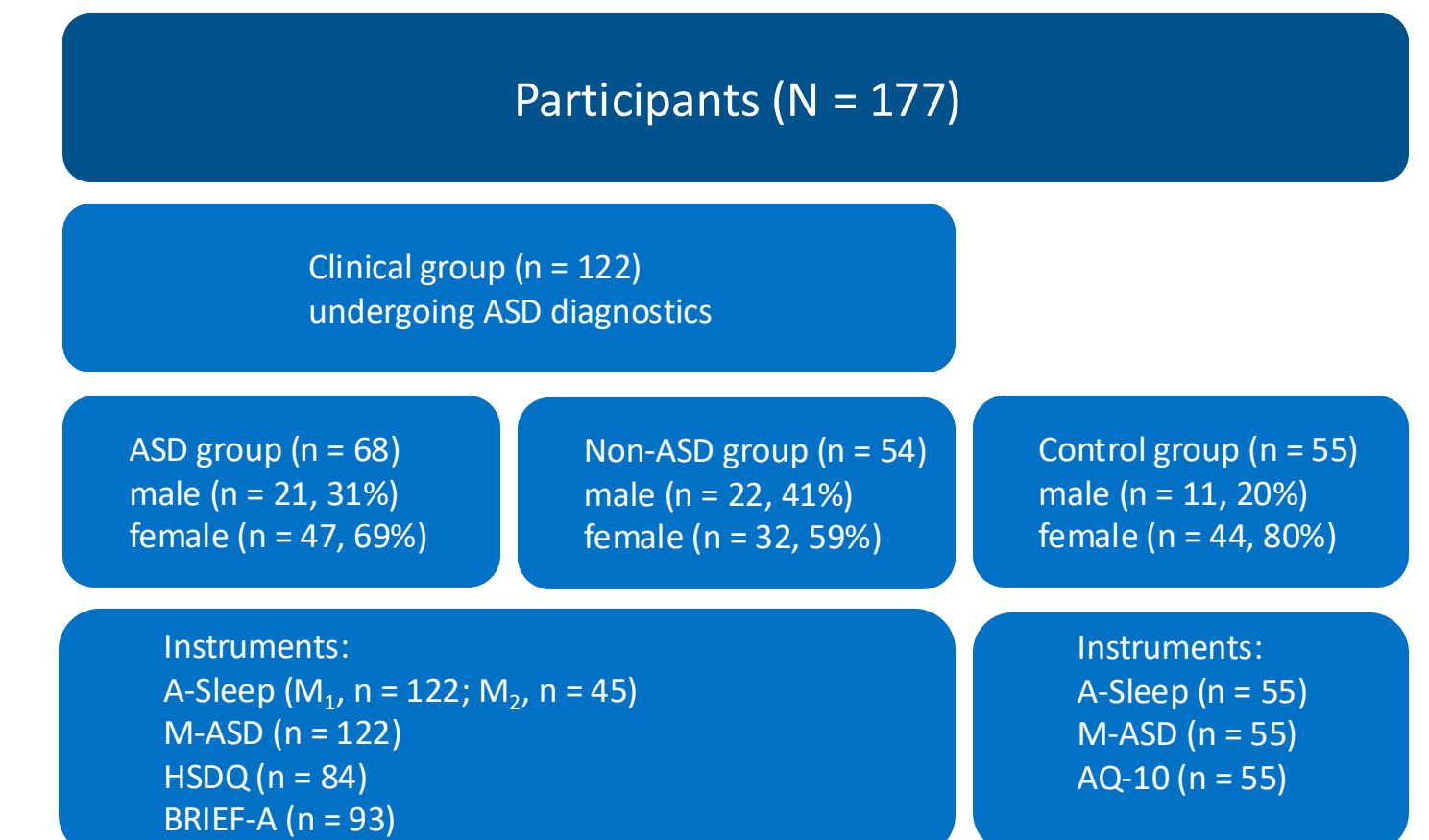
Convergent validity:
- with HSDQ: r = .88 (95% BHI = .83-.92)

Divergent validity
- with BRIEF-A: Taks Monitor, r = .32 (95% BHI = .13-.49)
- with BRIEF-A: Organization of Materials, r = .36 (95% BHI = .16-.52)

Factor analysis
- PCA (in clinical groups, n = 99), explained variance = 44.66%
- Resulted in A-Sleep R, with 30 items[5]

A-Sleep

Insomnia (8 items, α = .835)

Sleeping too late (6 items, α = .829)

Sleep amount (10 items, α = .839)

Anxieties (6 items, α = .844)

Figure 2: Factor Analysis

CONCLUSION

A-Sleep has good psychometric qualities

Reliability +

Validity + -

Reliability
- Internal consistency = excellent
- Test-retest reliability = high

Validity
- Construct validity = moderate
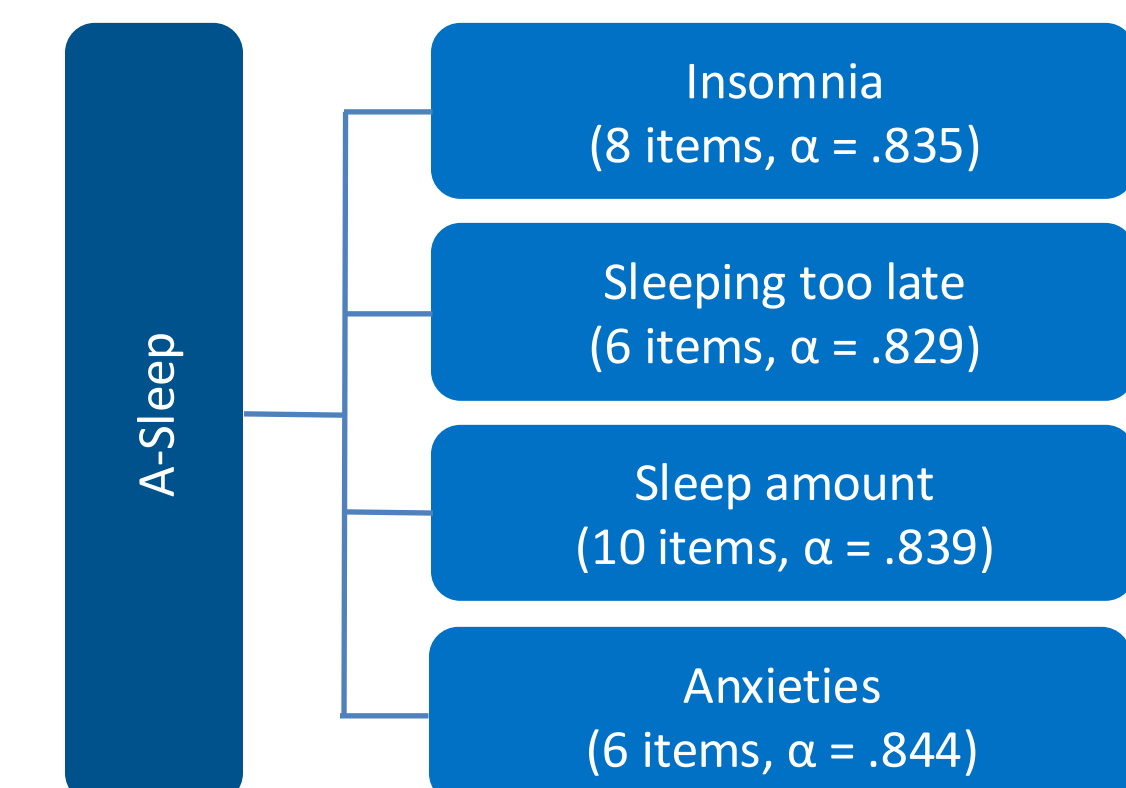- Convergent validity = strong
- Divergent validity = sufficient

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