

Introduction

- Previous studies have indicated that people who stutter (PWS) and people with ADHD (PWADHD) show similar cognitive profiles, implying a link between the two neurodevelopmental profiles.
- However, whether these shared traits reflect common underlying mechanisms or distinct cognitive profiles that show similar behavioural outcomes remains unclear.
- Network-based approaches offer a promising framework for distinguishing between surface-level trait overlap and fundamental differences in cognitive organisation, thereby supporting more precise, profile-specific intervention strategies.

Aim

This study examined the relationship between stuttering and ADHD and investigated the extent of this similarity using Network Models (NMs).

Methods

Neurotypical participants (N = 67), people with ADHD PWADHD (N = 79) and people who stutter PWS (N = 33) were assessed in:

(1) Adult ADHD Self-Report Scale (ASRS) for measuring ADHD traits; (2) Stuttering Severity Instrument-3 (SSI-3) for measuring fluency; and (3) Universal Non-Word Repetition Test (UNWR) for measuring phonological working memory (PWM).

Conclusions

NM structures were similar between the neurotypical group and PWADHD, but they both differed from those of PWS.

Findings suggest distinct cognitive architectures among participant groups, indicating that stuttering and ADHD do not share a common underlying mechanism.

PWM was the most important factor across all groups, but the way it affected other cognitive processes differed among neurotypical participants, PWS, and PWADHD.

