

More than a short form: Using adaptive assessments to optimize clinical insight from the first session

Friday, September 12, 2025 3:45 PM (15 minutes)

Computerized adaptive assessment algorithms are a promising alternative to traditional fixed-length questionnaires in clinical assessment. Their ability to dynamically select the most informative items based on individual responses allows for substantial reductions in administration time while preserving the precision of trait estimation. As such, adaptive instruments function as personalized short forms, tailored to the respondent's profile, without sacrificing psychometric rigor. In this contribution, we propose that such instruments may also suggest possible trajectories in clinical status.

Building on the framework of Formal Psychological Assessment, we adopt a methodological extension that exploits the concepts of frontier and neighborhood of outputs provided by adaptive instruments. The frontier consists of symptoms likely to emerge or remit as a mental disorder evolves, while the neighborhood includes adjacent clinical states into which the patient may plausibly transition. We tested this procedure using an adaptive version of a depression questionnaire, in a sample of 383 individuals from both clinical and non-clinical populations. We simulated adaptive assessments and tested whether the procedure could accurately infer the same clinical states, neighborhoods, and frontiers as the full response pattern, with comparable probabilities.

The simulated outcomes resembled the originals but were obtained with fewer administered items, due to the adaptive nature of the tool. Moreover, the method enabled accurate estimation of frontier and neighborhood structures, offering a concise yet predictive clinical picture.

This approach shows how adaptive assessments can move beyond efficiency, providing clinicians with early-stage, data-driven hypotheses on disorder progression and supporting faster, more targeted therapeutic decisions.

If you're submitting a symposium talk, what's the symposium title?

New perspectives for developing short forms of tests

If you're submitting a symposium, or a talk that is part of a symposium, is this a junior symposium?

No

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