Objective: Study objective was to demonstrate that the Quotient reports from individuals feigning ADHD could be distinguished from reports from unmedicated individuals with ADHD giving an honest testing effort. Substantial evidence indicates that not every adult who presents for ADHD evaluation actually has the disorder. This study investigated the utility of Quotient computerized assessment in the detection of feigned ADHD.

Methods: Twenty individuals, male and female ages 21-55, knowledgeable of the Quotient ADHD Test were instructed to take test and give their best efforts to appear to have ADHD. A second matched group of 19 unmedicated adults with ADHD took Quotient and were instructed to give their honest effort on the test. Five teams of interpreters of Quotient reports, blinded to test source, were tasked with separating the 39 reports into two groups; Feigned ADHD and Honest ADHD.

Results: Average Accuracy for the five teams in assigning the correct designation of “Feigned” or “Honest” to the Quotient tests was 85.8%, Sensitivity 76%, Specificity 92.9%, NPV 84.4% and PPV 88.4%. Values for two of the 17 Quotient parameters (Variability and Disengaged) alone correctly identified 66.7% of those feigning ADHD.

Conclusions: Although larger controlled trials are warranted, we tentatively conclude that using computerized objective measures such as Quotient may provide clinicians with much needed information in the assessment of adults who may attempt to feign ADHD.
Methods

Study Methods: This pilot study investigated the utility of the Quotient System, a computerized objective assessment tool, in the detection of feigned ADHD. The Quotient ADHD Test was used to distinguish between individuals trying to portray themselves as having ADHD from unmedicated individuals with ADHD giving an honest effort in taking the Quotient test. Five teams of skilled interpreters of Quotient tests were given all of the reports from feigned ADHD and honest ADHD test takers. The teams were blinded to the source of the tests and asked to separate the tests into fakers and honest test takers. The results below indicate that the test has properties that are significant in informing clinicians of the likelihood that the tested subjects are giving an honest test effort in contrast to attempts by the subjects to portray themselves as having ADHD.

Objective Assessment Technology: Quotient ADHD System

- FDA-cleared device intended for the objective measurement of hyperactivity, impulsivity and inattention as an aid in the assessment of ADHD
- Infrared Motion Tracking System measures movement 50 times per second with 0.4 mm resolution
- Proprietary reference database of age- and gender-matched cohorts
- HIPAA-compliant secure internet portal to upload data to server and to access patient reports in < 1 minute
- 15-minute test for ages 6-12 y.o., 20-minute test for ages 13-55 y.o.
- Measures specific behaviors associated with brain-based deficits in response inhibition
- Assesses involuntary movement control, voluntary movement efficiency, attention to stimuli, sustained attention and inhibition of impulsive actions
- Results strongly correlated with core neurological functions associated with ADHD
Examples of Quotient® ADHD Reports

Adult with ADHD

- High Scaled Scores seem to indicate severe deficits in motion control and sustained attention.
- High number of shifts and low % Attentive is a pattern consistent with ADHD.
- Correct response pattern and mid-range Variability percentile score indicate honest effort.

Adult Faker

- High Scaled Scores seem to indicate severe deficits in motion control and sustained attention.
- High % Disengaged flags a possible faker.
- Correct response pattern and low Variability percentile score flag a possible faker.
Conclusions

- Assessment teams were able to discriminate “Honest” from “Feigned” with 85.8% accuracy.
- Analysis of the test reports revealed that high Variability and Disengaged were strong predictors of “Feigned” ADHD.
- Variability and Disengaged alone correctly predicted “Feigned” 66.7% of the time.
- Accurate assessment of ADHD in college students is critically important to assure that comprehensive treatment for ADHD is provided to those who need it, and those who are attempting to feign ADHD don’t fraudulently obtain accommodations or controlled substances.
- The results of this pilot study strongly suggest that the Quotient ADHD System can be a useful tool in the assessment of ADHD providing indicators of possible feigned ADHD that can be recognized by experienced clinicians.
- Larger prospective studies with a control arm, feigned ADHD arm and actual ADHD arm will be necessary to confirm this preliminary result.


