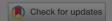Articles

# The ability of CNS vital signs to detect coached sandbagging performance during concussion baseline testing: a randomized control trial

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## ABSTRACT

Objectiv... ...cussion
manage... ...urs without
detectio... ...indicator
accuracy...

Meth...
neuroco... ...e-aged
students... ...NS Vital
Signs ins... ...timal
performa... ...structions on
how to s... ...mpleting on
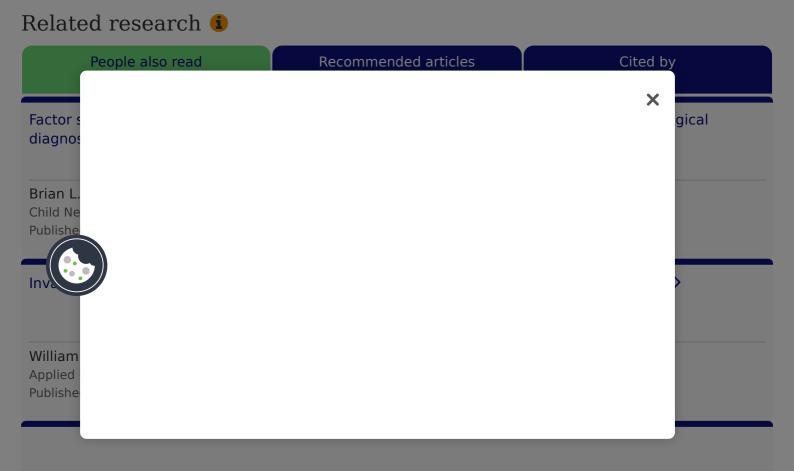a Visual Analog Scale (0–100 mm).

Results: Built in invalidity indicators successfully identified 68.0% of sandbaggers, while only 12% in the control group presented with invalid scores. Participants in the sandbagging group on average reported significantly lower effort (sandbag: 51.0 ± 21.0, control: 86.0 ± 12.0, p < .001)

Conclusions: Built-in CNS Vital Signs validity indicators have an overall high accuracy in identifying those attempting to purposefully sandbag and are comparable to other computerized neurocognitive tests. Given that 32% of intentional sandbaggers went undetected, clinicians should consider additional safeguards to detect these individuals at baseline.

🔍 **KEYWORDS:** Psychometric   mild-traumatic brain injury   neurocognitive testing

## Declaration of interest

The authors report no declarations of interest.

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