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Competing interests

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In the interest of transparency and to help readers form their own judgements of potential bias, Nature Portfolio journals require authors to declare any competing financial and/or non-financial interest in relation to the work described in the submitted manuscript.

Competing interests declaration

- ☐ We declare that none of the authors have competing financial or non-financial interests as defined by Nature Portfolio.
- ☒ We declare that one or more of the authors have a competing interest as defined by Nature Portfolio.

D.A. and T.C. have submitted patent applications related to this work. T.C. is a co-founder and equity holder of HealthRhythms, Inc. and has received grants from Click Therapeutics related to digital therapeutics. D.C.M. has accepted honoraria and consulting fees from Boehringer-Ingelheim, Otsuka Pharmaceuticals, Optum Behavioral Health, Centerstone Research Institute, and the One Mind Foundation, royalties from Oxford Press, and has an ownership interest in Adaptive Health, Inc. J.M. has accepted consulting fees from Boehringer Ingelheim. G.J.A. holds equity in HealthRhythms, Inc. and Lyra Health, Inc., and has accepted consulting fees and honoraria from BetterUp and Quantum Health.

Authorship

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- ☒ We have read the Nature Portfolio Authorship Policy and confirm that this manuscript complies.

Large Language Models (LLMs), such as ChatGPT, do not currently satisfy our authorship criteria. Notably an attribution of authorship carries with it accountability for the work, which cannot be effectively applied to LLMs. Use of an LLM should be properly documented in the Methods section (and if a Methods section is not available, in a suitable alternative part) of the manuscript.

- ☒ We confirm that the author list of this manuscript does not include any Large Language Models (LLMs).

Policy information about Authorship: inclusion & ethics in global research

All authors are encouraged to provide an "Inclusion & Ethics" statement where relevant.

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Data availability statement

All manuscripts must include a [data availability statement](#). This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
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- ☒ We have provided a full data availability statement in the manuscript.

Mandated accession codes ([where applicable](#))

Confirm that all relevant data are deposited into a public repository and that accession codes are provided.

- ☐ All relevant accession codes are provided ☐ Accession codes will be available before publication ☒ No data with mandated deposition

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Code availability statement

For all studies using custom code or mathematical algorithm that is deemed central to the conclusions, the manuscript must include a statement under the heading "Code availability" describing how readers can access the code, including any access restrictions. Code availability statements should be provided as a separate section after the data availability statement but before the References.

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For all data presented in a plot, chart or other visual representation confirm that:

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- ☒ ☐ Box-plot elements are defined (e.g. center line, median; box limits, upper and lower quartiles; whiskers, 1.5x interquartile range; points, outliers)
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☐	☒ Human research participants
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Human research participants

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☒ We have complied with all relevant ethical regulations and include a statement affirming this in the manuscript.

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☒ Approved the study protocol -OR- ☐ Provided guidelines for study procedures (if protocol approval is not required)

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☒ We have obtained informed consent from all participants and this is noted in the manuscript.

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For publication of identifiable images of research participants, confirm that consent to publish was obtained and is noted in the Methods.

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I certify that all the above information is complete and correct.

Typed signature Daniel A. Adler

Date Aug 23, 2023

