

Appendix 1:

Patrick Aquino, MD, is the Chair of the Division of Psychiatry for Lahey Hospital & Medical Center. He is also the Medical Director for Ambulatory and Integrated Services for Beth Israel Lahey Health Behavioral Services where he oversees care delivery across a network of outpatient clinics and outreach programs for BILH BS. He is a graduate of Harvard University and the University of Maryland School of Medicine.

Nicole Benson, MD, attended Haverford College where she majored in mathematics. Before medical school at the University of Vermont College of Medicine, she worked at the Center for Clinical Epidemiology and Biostatistics in the University of Pennsylvania, where she developed her interest in health services research by studying outcomes and utilization of the Intensive Care Unit. After obtaining her medical degree, Dr. Benson completed a residency in psychiatry and a fellowship in child and adolescent psychiatry, both at Massachusetts General Hospital/McLean Hospital.

Steven R. Chan, MD MBA, is a clinical assistant professor at Stanford University School of Medicine, whose research in digital health include asynchronous telepsychiatry video visits, app and vendor curation, and addiction services.

Michelle Dirst, MPP, is Director of Practice Management and Delivery Systems at the American Psychiatric Association. She has a history of working with the United States Congress, the executive branch and leading national substance abuse and mental health advocacy organizations. Michelle holds a Master's degree in international commerce and policy from George Mason University.

Margaret R. Emerson, DNP, APRN, PMHNP-BC, is a psychiatric nurse practitioner and assistant professor at the University of Nebraska Medical Center. Dr. Emerson specializes in integrated care and is currently exploring the use of mobile app technologies in the underserved and those that experience higher rates of health disparities being cared for in integrated care settings.

Karen L. Fortuna, PhD, LCSW is a health services researcher from Dartmouth College and works with peer support specialists as equal partners in the development and testing of peer-supported smartphone apps.

David Gratzer, MD, FRCP(C), is an Assistant Professor at the University of Toronto, and works as a psychiatrist at the Centre for Addiction and Mental Health. He is an Associate Editor (for digital psychiatry) of The Canadian Journal of Psychiatry, and he blogs at davidgratzer.com.

Darlene King, MD is a rising third year psychiatry resident at the University of Texas Southwestern Medical Center. She has a bachelor's in mechanical engineering and a biomedical informatics certificate from the University of Texas School of Biomedical Informatics at

Houston. Darlene enjoys thinking in ways that link medicine, engineering and information technology.

Sonia Matwin, PhD is an Assistant Professor and the Director of Psychotherapy Education in the Department of Psychiatry and Behavioral Sciences at Vanderbilt University Medical Center. Dr. Matwin's primary interests focus on the provision and teaching of CBT and mindfulness-based therapies, as well as the integration of mHealth for both teaching and treatment.

Keris Jan Myrick, MBA, MS, PhD.c, is the Chief, Peer Services for the Los Angeles County Department of Mental Health. Ms Myrick was formerly the Director of the Office of Consumer Affairs for the Center for Mental Health Services of the United States Health and Human Services' Substance Abuse and Mental Health Services Administration. Ms. Myrick has a Master of Science degree in organizational psychology from the California School of Professional Psychology of Alliant International University. Her Master of Business Administration degree is from Case Western University's Weatherhead School of Management. Her personal story was featured in the New York Times series: Lives Restored, which told the personal narratives of several professionals living with mental health issues.

Stephon Proctor, PhD, is a clinical child psychologist and Director of Behavioral Health Informatics at the Children's Hospital of Philadelphia (CHOP). Dr. Proctor is board certified by the American Board of Professional Psychology with a specialization in Clinical Child and Adolescent Psychology. He is skilled in behavioral health informatics and population data analysis. His interest is in the intersection between behavioral health and technology including mobile applications, wearables, and electronic health records.

Julia Tartaglia, MD is a psychiatry resident at Hofstra/Northwell-Zucker Hillside Hospital who has a background in both entrepreneurship and digital health research in areas including mobile apps for medical student burnout and for persons with schizophrenia.

Nathan Tatro, M.A., is Deputy Director of Digital Health at APA, within its Division of Programs, Policy, and Partnerships, staffing APA's Committee on Mental Health IT and its Committee on Telepsychiatry. He coordinates APA App Advisor. Nate holds an MA in psychology from George Mason University.

John Torous, MD, MBI, is director of the digital psychiatry division, in the Department of Psychiatry at Beth Israel Deaconess Medical Center, a Harvard Medical School affiliated teaching hospital, where he also serves as a staff psychiatrist and academic faculty. He has a background in electrical engineering and computer sciences and received an undergraduate degree in the field from UC Berkeley before attending medical school at UC San Diego. He completed his psychiatry residency, fellowship in clinical informatics, and master's degree in biomedical informatics at Harvard. Dr. Torous is Chair of APA's Committee on Mental Health IT.

Robert Walker, M.S., COAPS, works for the Massachusetts Department of Mental Health Office of Recovery and Empowerment, which is responsible for providing a bridge from the

Department to provider agencies, persons receiving services, family members and the community at large. Mr. Walker is a person with lived experience of a mental health diagnosis, which informs all areas of his work. Areas of involvement include; Transitional Age Youth, Older Adults, the Deaf community, supporting and expanding the statewide peer workforce, and DMH efforts around Race, Equity, and Inclusio

Appendix 2: APA Framework Questions

Level 1: Access and Background

1. Does the app identify ownership?
2. Does the app identify funding sources and conflicts of interest?
3. Does the app come from a trusted source?
4. Does is claim to be medical?
5. Are there additional or hidden costs?
6. Does the app work offline?
7. On which platforms/operating systems does it work?
 - a. Does it work on a desktop computer?
8. Does the app work with accessibility features of the iPhone/android?
 - a. Is it accessible for those with impaired vision or other disabilities?
9. Has the app been updated in the last 180 days?

Level 2: Privacy & Security

10. Is there a transparent privacy policy that is clear and accessible before use?
11. Does the app declare data use and purpose?
12. Does the app describe use of PHI?
 - a. Deidentified vs. anonymous?
13. Can you opt out of data collection or delete data?
14. Are data maintained in the device or on the web?
15. Does the app explain security systems used?
16. Does the app collect, use, and/or transmit sensitive data? If yes, does it claim to do so securely?
17. What third parties does the app share data with?
18. *If appropriate, is the app equipped to respond to potential harms or safety concerns?*

Level 3: Clinical Foundation

19. Does the app appear to do what it claims to do?
20. Is the app content correct, well-written, and relevant?
21. What are the relevant sources or references supporting the app use cases?
22. Is there evidence of specific benefit *from academic institutions, publications, end user feedback, or research studies?*

- 23. *Is there evidence of effectiveness/efficacy?*
- 24. *Was there an attempt to validate app usability and feasibility?*
- 25. *Does the app have a clinical/recovery foundation relevant to your intended use?*






Level 4: Usability

- 26. *What are the main engagement styles of the app?*
- 27. *Do the app and its features align with your needs and priorities?*
- 28. *Is it customizable?*
- 29. Does the app clearly define functional scope?
- 30. Does the app seem easy to use?

Level 5: Data Integration towards Therapeutic Goal

- 31. Do you own your data?
- 32. Can data be easily shared *and interpreted in a way that's consistent with the stated purpose of the app?*
- 33. *Can the app share data with EMR and other data tools (apple Healthkit, FitBit)?*
- 34. *Is the app for individual use or to be used in collaboration with a provider?*
 - a. *If intended to be used with a provider, does the app have the ability to export or transfer data?*
- 35. Does the app lead to any positive behavior change or skill acquisition?
- 36. Does the app improve therapeutic alliance between patient and provider?

Appendix Figure A1: Screening Questions

Access and Background		<input checked="" type="checkbox"/> On which platforms/operating systems does the app work? Does it also work on a computer? <input checked="" type="checkbox"/> Has the app been updated in the last 180 days?
Privacy and Security		<input checked="" type="checkbox"/> Is there a transparent privacy policy that is clear and accessible before use? <input checked="" type="checkbox"/> Does the app collect, us, and/or transmit sensitive data? If yes, does it claim to do so securely?
Clinical Foundation		<input checked="" type="checkbox"/> Is there evidence of specific benefit from academic institutions, user feedback, or research studies? <input checked="" type="checkbox"/> Does the app have a clinical/recovery foundation relevant to your intended use?
Engagement Style		<input checked="" type="checkbox"/> Does the app seem easy to use for the patient or use case at hand?
Therapeutic Goal		<input checked="" type="checkbox"/> Can data be easily shared and interpreted in a way that's consistent with the stated purpose of the app?

Access and Background



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Clinical Foundation



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Engagement Style



- Does the app seem easy to use for the patient or use case at hand?

Therapeutic Goal



- Can data be easily shared and interpreted in a way that's consistent with the stated purpose of the app?