

# A SYSTEMIC ETHICAL FRAMEWORK FOR MOBILE MENTAL HEALTH

## From design to implementation

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### BACKGROUND

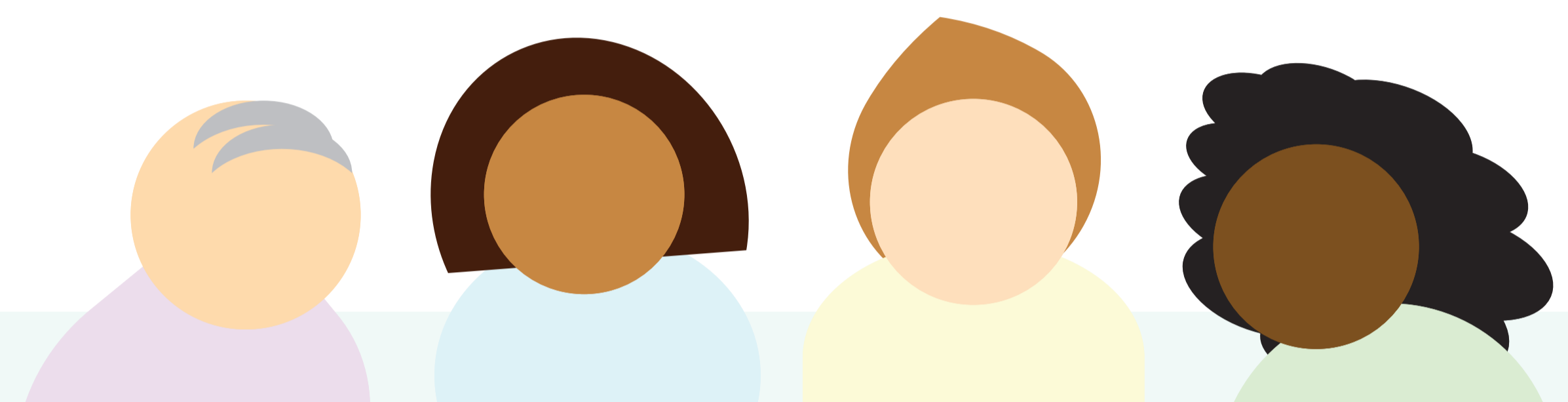
- Mobile mental health has shown the need for greater ethical and regulatory frameworks to guide the design, use, and implementation of innovative interventions for vulnerable populations<sup>1,2,3</sup>
- Mental healthcare has long been guided and regulated by ethical principles and codes of conduct aimed at ensuring standards of practice, professional behaviour, and good and fair delivery of care<sup>4,5</sup>
- Ethical issues pervade mobile mental health in much of the same way as traditional mental healthcare but the multidisciplinary nature of this newer field demands a broader conceptualisation of these ideas
- At a basic level, mobile mental health unites the fields of mental health, computer science, and human computer interaction, with each discipline guided by its own ethical considerations and standards
- Discussion of ethical issues in mobile mental health often centre around similar principles but their conceptualisation and application may differ according to the discipline, expertise, and interests of the individuals involved<sup>6,7</sup>
- There is need for greater integration of all disciplines and a more unified approach to understanding these shared and unique ethical concepts
- Without a holistic approach to these critical matters, we risk the development and implementation of mobile mental health which fall short of standards and which pose risks to individuals and society

### OBJECTIVES

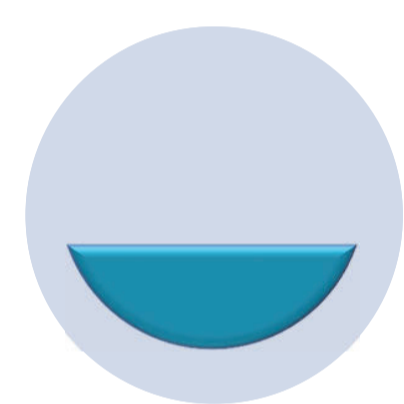
The present research seeks to address this challenge with the development of a systemic ethical framework for mobile mental health.

This research aims to:

- Identify ethical and social issues in mobile mental health across disciplines and stakeholder groups
- Create a unified multidisciplinary ethical framework denoting key ethical and social issues
- Consider the application of a systemic ethical framework in the design, use, and implementation of mobile mental health technologies
- Promote a shared discourse of ethical and social issues in mobile mental health to strengthen multidisciplinary collaborations and the inclusion of key stakeholder groups and interests

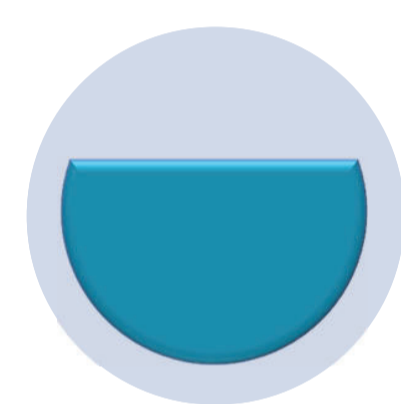


### METHODS (IN PROGRESS)



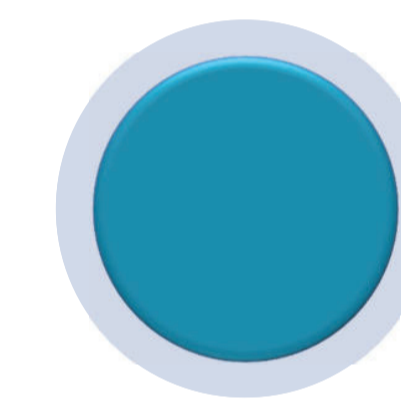
#### Informal literature review

Completed preliminary search and review of literature related to ethical and social concepts in mobile mental health across disciplines  
Completed preliminary review of healthcare guidelines and regulatory policies



#### Initial conceptualisation

Synthesised findings of preliminary literature review of ethical and social concepts  
Developed initial conceptualisation of ethical framework (Fig.) illustrating interrelated principles across key stakeholder groups



#### Systematic reviews

Completing two ethical and systematic reviews (in progress) to comprehensively analyse and synthesise concepts:

- Systematic review of the ethical and social considerations and impact of mobile mental health
- Content analysis and ethical review of commercially available mobile applications for depression

### INITIAL CONCEPTUALISATION

Guided by preliminary review of literature, we conceptualised a systems-based framework capturing the interrelation of pertinent ethical concepts across disciplines and stakeholder groups, from the fundamental unit of the individual user to practitioners, developers, health agencies, and governance.

This initial formulation focussed on ethical issues in the areas of: Privacy, safety, treatment, competence, legal issues, social and human relations, autonomy, and commercial considerations.

The framework will be further developed and revised to reflect results of the systematic reviews.

The framework aims to facilitate multidisciplinary development of mobile mental health by creating shared ethical language and guidance.

It is further hoped that the framework will assist in the evaluation and decisions to use and to implement existing and future mental health technologies by individual users, practitioners, and health services.

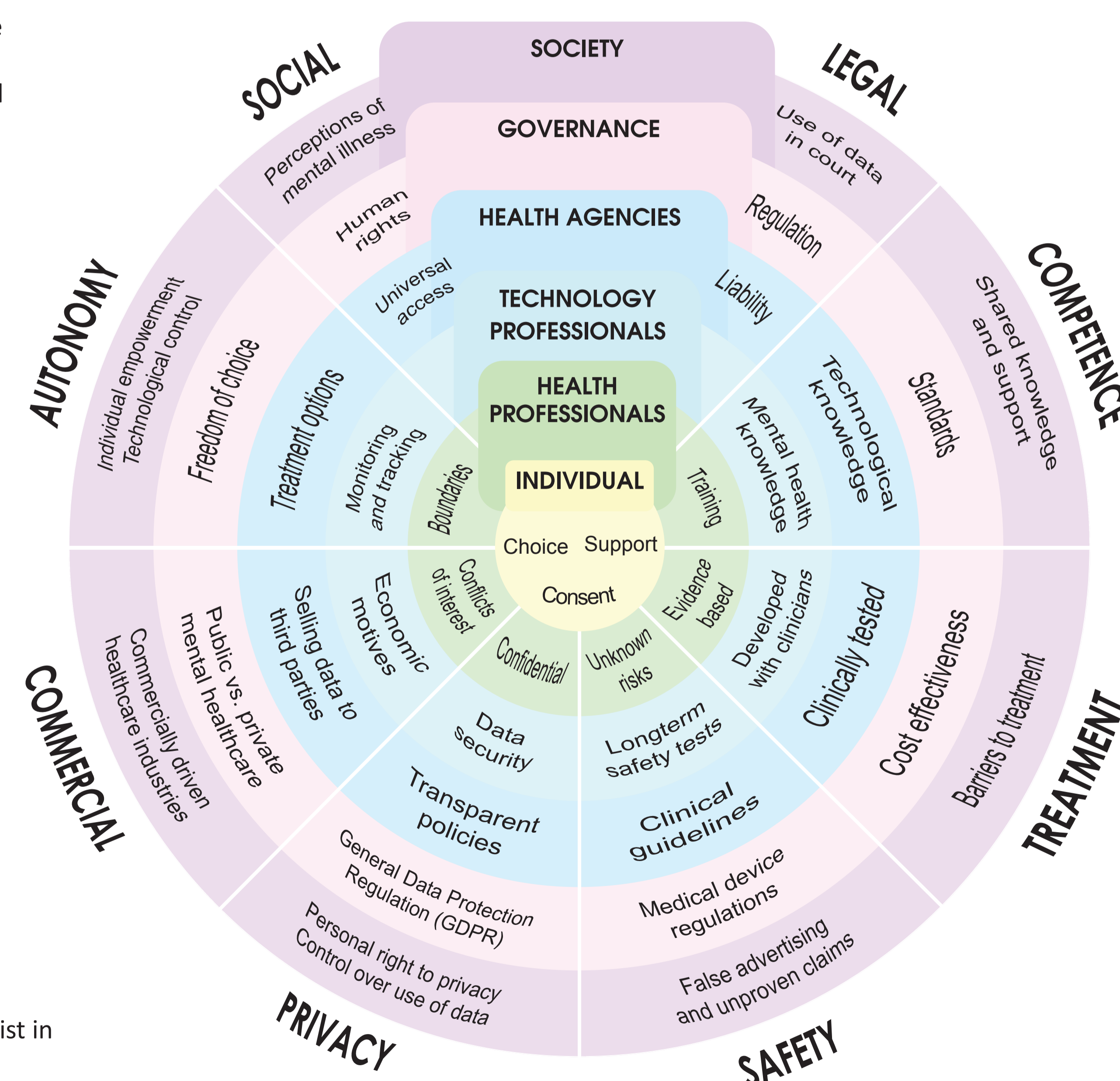


Fig. Initial conceptualisation of systemic ethical framework for mobile mental health

### NEXT STEPS

Integrate results of the systematic reviews, synthesising key ethical and social concepts in mobile mental health



Reform the framework with a focus on honing shared ethical principles and the specific systems involved



Evaluate validity and utility of systemic ethical framework with key stakeholder groups to guide further development



Explore the application of the framework across disciplines and stakeholder groups throughout the lifespan of mobile mental health – from design to implementation

#### References

- Bauer, M., Glenn, T., Monteith, S., Bauer, R., Whybrow, P. C., Geddes, J. (2017). Ethical perspectives on recommending digital technology for patients with mental illness. *International Journal of Bipolar Disorder*, 5:6.
- O'Doherty, K. C., Christofides, E., Yen, J., Bentzen, H. B., Burke, W., Hallowell, N., ... Willison, D. J. (2016). If you build it, they will come: Unintended future uses of organised health data collections. *BMC Medical Ethics*, 17:54.
- Torous, J., Firth, J., Huckvale, K., Larsen, M. E., Cosco, T. D., Carney, R., ... Christensen, H. (2018). The emerging imperative for a consensus approach toward the rating and clinical recommendation of mental health apps. *Journal of Nervous & Mental Disease*, 206(8), 662-666.
- American Psychological Association (APA) (2017). *Ethical principles of psychologists and code of conduct*. Retrieved from <http://www.apa.org/ethics/code/ethics-code-2017.pdf>
- British Psychological Society (BPS) (2018). *Codes of ethics and conduct*. Retrieved from <https://www.bps.org.uk/news-and-policy/bps-code-ethics-and-conduct>
- Karcher, N. R. & Presser, N. R. (2018). Ethical and legal issues addressing the use of mobile health (mHealth) as an adjunct to psychotherapy. *Ethics and Behaviour*, 28(1), 1-22.
- Parker, L., Karlychuk, T., Gillies, D., Mintzes, B., Raven, M., & Grundy, Q. (2017). A health app developer's guide to law and policy: A multi-sector policy analysis. *BMC Medical Informatics & Decision Making*, 17:141.

This research is part of a PhD project under the AffecTech ITN. AffecTech is a multidisciplinary research and development project funded by the Horizon 2020 Innovative Training Network of the European Union under the Marie Skłodowska-Curie grant agreement no. 722022. For more information on AffecTech, please visit [www.affectech.org](http://www.affectech.org)