
Transdisciplinary ethical principles and standards for mobile mental health

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Abstract

This position paper addresses the continued ethical challenges in mobile mental health and the need for transdisciplinary ethical principles and standards to facilitate the development of ethically designed mental health technologies. By comparing and synthesising ethical codes of conduct across disciplines in digital mental health – namely psychology, healthcare, human computer interaction, computer science, and engineering – we suggest transdisciplinary ethical principles and standards to facilitate the development of ethically designed mental health technologies. These preliminary findings form part of a larger research project which seeks to develop a transdisciplinary approach to the ethical design, marketing, and implementation of mental health technologies.

Author Keywords

mobile mental health; digital mental health; codes of conduct; ethics; principles; standards; transdisciplinary

CSS Concepts

• **Social and professional topics**~Computing / **technology policy** • Applied computing~Law, social and behavioral sciences~Psychology

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Psychology

- American Psychological Association [2]
- The British Psychological Society [8]
- European Federation of Psychologists' Associations [10]

Healthcare

- Health and Care Professions Council [11]
- American Medical Association [1]

Computer science/HCI

- Association for Computer Machinery [3]
- The British Computer Society [7]
- Department of Health and Social Care [9]

Engineering

- National Society of Professional Engineers [14]
- Institute of Electrical and Electronics Engineers [12]
- The Royal Academy of Engineering [18]

Box 1. Professional codes of ethics sampled in the study

Introduction

There has been much discussion of the ethics of mobile mental health [4-6,13,15-17]. Issues include privacy and data security; risks and safety concerns; benefits and evidence; and related issues of transparency, trust, and informed consent. While there has been greater awareness of the ethics of mobile mental health, there are limited transdisciplinary frameworks to effectively guide and improve ethical practice. Mobile mental health is a multisector industry, requiring collaboration of many disciplines including psychology, healthcare, computer science, human computer interaction (HCI), and engineering. Research has shown the importance of multisector involvement in the design of mobile mental health, yet there is a lack of shared language and standards bridging the unique demands of each discipline. To address this, we reviewed ethical codes across disciplines in digital mental health to compare principles and standards with a view of promoting transdisciplinary guidance and best practices. Data collection and preliminary insights are described.

Search and review of ethical codes

Search for ethical codes of conduct was performed in Google search using the terms 'psychology codes of ethics', 'computer science codes of ethics', 'HCI codes of ethics', 'engineering codes of ethics', 'healthcare codes of ethics', and 'codes of ethics for mental health'. We were interested in reviewing professional codes of ethics and excluded other discussion on ethics (including academic research) from review. A sample of 11 professional codes were selected across disciplines (Box 1). Codes were reviewed and data extracted pertaining to ethical principles and standards. Findings were synthesised into transdisciplinary ethical principles and standards for digital mental health.

Ethical principles and standards

Most codes described ethical principles as guidelines and best practices to be aspired to, with accompanying standards governed by the professional bodies. While thematically similar, there were differing ethical principles and focus across the codes reviewed. For example, psychology codes of ethics prioritised client care and welfare, and standards related to duty of care and competence. Comparatively, engineering codes, while also prioritising benefits and avoidance of harm, emphasised standards related to professional reputability and responsibility. Findings were synthesised into eight ethical principles: beneficence, nonmaleficence, competence, integrity, justice, fidelity, responsibility, and respect for rights and dignity of all people (Box 2). These transdisciplinary ethical principles and standards are presented in Figure 1.

Discussion

This position paper proposes preliminary transdisciplinary ethical principles for digital mental health. While our review found some principles and standards were more prevalent than others (eg, avoidance of harm), we consider all transdisciplinary principles to be equally relevant and important for ethical practice. We encourage multidisciplinary teams to reflect on these principles in the development of digital mental health and to consider how innovative design can be used to overcome potential ethical conflicts. In their ethical reflections and deliberations, it is also important for development teams to consider not only their own ethical practices, but the principles and values embedded in the technologies they design and develop. Digital mental health should reflect these key principles and standards to ensure safe, accurate, and effective delivery of care for all.

Ethical principles

Beneficence

Doing good or benefiting others, directly or indirectly

Nonmaleficence

Doing no harm or managing harms to gain benefits

Integrity

Being honest, moral, and accountable for one's actions

Fidelity

Being faithful and consistent in promises and deeds

Justice

Being fair and reasonable in action and interactions

Competence

Being appropriately skilled and knowledgeable

Responsibility

Having a duty or obligation to perform in a certain manner

Respect for the rights and dignity of all people

Respecting human rights, differences, and freedoms

Nonmaleficence

Avoidance of harm
Safety
Safeguarding
Security

Respect for rights and dignity of all people

Confidentiality
Non-discrimination
Privacy
Autonomy
User centred/User needs
Informed consent
Diversity
Managing power imbalances
Non-harassment

Competence

Knowledge and skillset
Acknowledging limitations of self, team, and products
Evidence-base/Scientific rigour
Continuing development of self, team, and products
Quality
Reflection on motives, actions, and outcomes
Reliability of methods, products, and interventions
Validity of methods, products, and interventions

Justice

Fairness in actions, interactions, and design
Fair trade
Accessibility of resources and services for all
Inclusiveness
Conservation of resources

Beneficence

Ensuring benefits for others/Human welfare
Effectiveness

Responsibility

Legal compliance
Professional standards
Ethical compliance
Communication/Public outreach
Collaboration/Cooperation for transdisciplinary design
Evaluation of methods, actions, products, outcomes
Documentation of methods, actions, and outcomes
Peer review
Reporting of ethical concerns and breaches
Social responsibility
Duty of care
Environmental impact/sustainability
Interoperability of systems

Integrity

Accountability
Honesty
Managing conflicts of interest
Transparency of motives, actions, communications
Accuracy
Authorship/Intellectual property rights
Objectivity
Reputability
Appropriate data use

Fidelity

Trustworthiness
Continuity/Consistency of actions, outcomes, products
Faithfulness

Box 2. Descriptions of transdisciplinary ethical principles

Figure 1. Transdisciplinary ethical principles and abridged standards

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