



THE  
**Compassionate Mind**  
FOUNDATION

**8<sup>th</sup> International Conference**

*The Compassionate Mind in Its Social  
Context: From the Body to the Social  
World*

8-11 October 2019 in EDINBURGH

SYMPOSIUM: Compassionate Technologies

*Compassionate Technology concerns knowledge and skills related to the possibilities to reduce suffering and increase wellbeing in mental healthcare with technology. Therapy through technology is often framed as cold and uncaring and contrasted with the warmth and connection from a human therapist. Compassionate technology promotes a different viewpoint where technology and the human therapist together can create compassionate mental healthcare. In many ways technology and human potential are complementary and together can offer intuitive, appropriate, consistent and just-in-time actions that can truly be called compassionate.*

1) Embodied sensor technology for emotion regulation - *Dr. Matthijs Noordzij*

Most therapies in mental healthcare aimed at emotion, self, stress or aggression regulation emphasize the importance of being able to feel your own physiological state. To some (limited) extent biofeedback is already used for this, but when it is offered it occurs at a table in a static

controlled environment. Unfortunately, the challenges of life come unexpectedly, away from a safe environment and often require a direct, adequate response. For these situations people should also remember to take into account their bodily state when they are reacting. However, who knows the state of their own autonomic nervous system in a challenging emotional situation? In this presentation the Sense-IT platform will be introduced, which has been developed together with patients with Borderline Personality Disorder. It allows for continuous, personalized, ambulatory heart rate biofeedback (corrected for movement) on any Android smartwatch. This compassionate technology will be explained and some of the projects in mental healthcare (surrounding emotion and aggression regulation) in which the Sense-IT will be integrated will be highlighted. Finally, the possibilities of connecting or timing compassion focused therapy techniques with the Sense-IT will be discussed.

## 2) Development of a CMT app for people with cancer - *Judith Austin*

Since the last decade, psychological interventions are increasingly delivered via mobile devices, such as smartphones and tablets. Advantages of smartphones as delivery mode are its continuous availability enabling regular practise of exercises in daily life, the use of interactive and visual/audio exercises and immediate feedback facilitating the learning process. Within the field of cancer, mHealth apps are rapidly emerging, but often not evidence-based and not developed in collaboration with its users. The development process of a Compassionate Mind Training smartphone app will be presented, consisting of a series of co-creative workshops with people with cancer, oncology nurses and other stakeholders. How do we integrate the wishes and needs of these intended users with the existing material and

evidence on CMT? How do we make use of the advantages that technology has to offer? Challenges and lessons from the co-development process of CMT in app-form will be discussed.

### Key learning points

- 1 Compassionate technology provides a framework for therapies and technology providing compassionate care together.
- 2 Design of such technology must be done in collaboration with stakeholders such as clients and therapists.
- 3 Traditional exercises and information can be integrated and perhaps enhanced with the possibilities that technology has to offer.
- 4 (bio) Sensor technology allows for new Just in Time Adaptive Compassionate Interventions.

### Useful Reading

Derks, P. M. J., De Visser, T., Bohlmeijer, E. T. & Noordzij, M. L. (2017) [mHealth in Mental Health: How to efficiently and scientifically create an ambulatory biofeedback e-coaching app for patients with Borderline Personality Disorder](#). *Int. J. Hum. Factors Ergon.* **5**, 61–92

Nelson EC, Verhagen T, Vollenbroek-Hutten M, Noordzij M. (2018) [Is wearable technology becoming part of us? Developing and validating a measurement scale for wearable technology embodiment](#). JMIR Preprints. 09/11/2018:12771. DOI: 10.2196/preprints.12771.

## Symposium speakers



**Dr Matthijs Noordzij's** interests are related to compassionate technologies (i.e. technology that is sensitive to the suffering of human beings) in mental healthcare. He has particular expertise in physiological measures and biofeedback in daily life issues related to self-regulation (e.g. addiction, aggression). He is an associate professor in the department of Psychology, Health and Technology and a research fellow of the design lab at the University of Twente, The Netherlands.



**Judith Austin** has a background in medical psychology, co-creative research and mindfulness and is interested in compassion practice and research. Her PhD project at the department of Psychology, Health and Technology at the University of Twente, The Netherlands is about co-designing and evaluating an mHealth compassion intervention for people with newly diagnosed cancer.