

Inspiration tour

AIM: To generate insights in the context to be designed for
 METHOD: Observations and informal interviews
 WHO: Young adults enrolled in early intervention schizophrenia program, HCP
 WHERE: In-patient unit, Out-patient unit, home of patients
 WHEN: October-December 2012

KEY FINDINGS: The context to be designed for is complex
 - Everyday living is situated on many different arenas.
 - Everyday living includes support from a large network of actors.

CONCLUSION: The technology must be flexible and customizable to work in a real time, real life setting.

Design of co-design process, step I

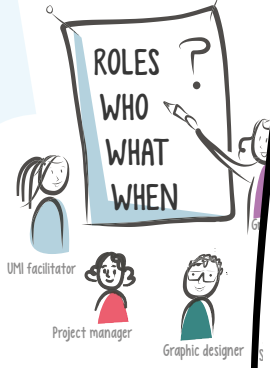
AIM: To decide on a generative toolkit for telling, making and enacting activities
 METHOD: Literature review
 WHEN: March-April 2013

What tools & techniques to facilitate reflection on empowerment?
 How to establish a shared and concrete language about visions of future care?
 How to grasp tacit knowledge and bring it into play?



Co-designing healthcare: putting the healthcare into the patient's pocket

The Virtual World and Mental Health, Denmark June 8th 2017
 Malene Terp



Design of co-design process, step II

AIM: To clarify roles and activities in the co-design process
 METHOD: Design meeting
 WHEN: April 29th 2013

Design of co-design process, step II

AIM: To develop a plan for the co-design process
 METHOD: Design meeting
 WHEN: April 15th 2013

We create templates and a visual scaffold for story telling



What is?
 What could be?



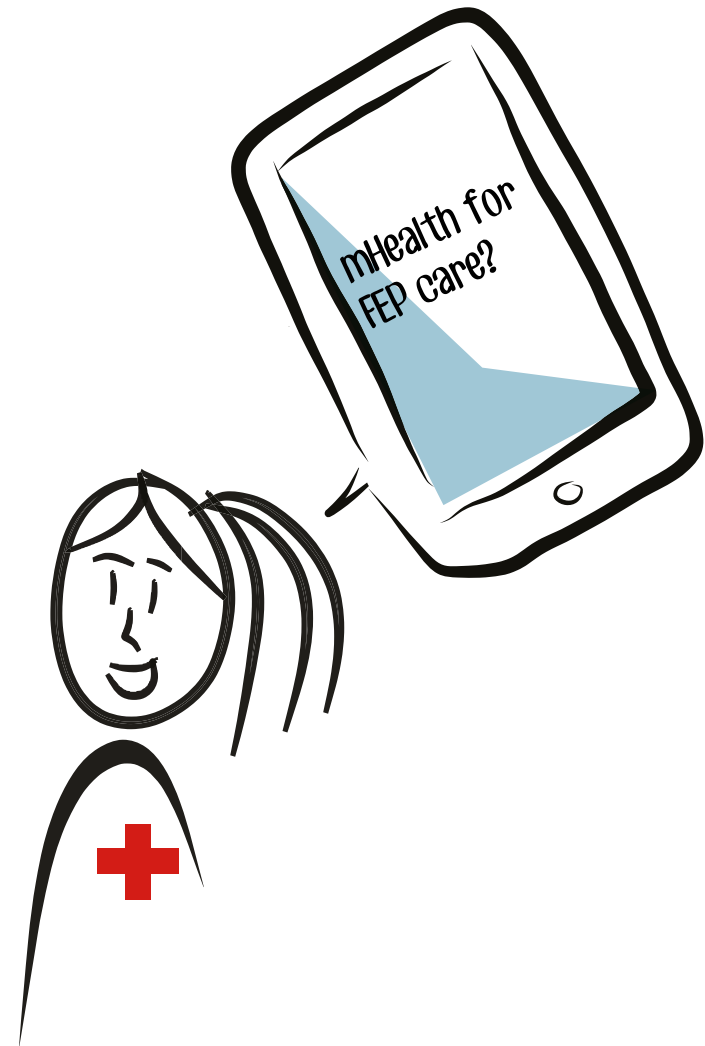
The visual scaffold for extending direction into telling

My interest in pocket size healthcare?

Good quality care is only good if people get it a lot does not!

Maybe the smartphone can be used to make healthcare services more userfriendly?

- Smartphone as 'finger number 6'
- Smartphone as connection to outer world
- Smartphone as a source for illness self-management

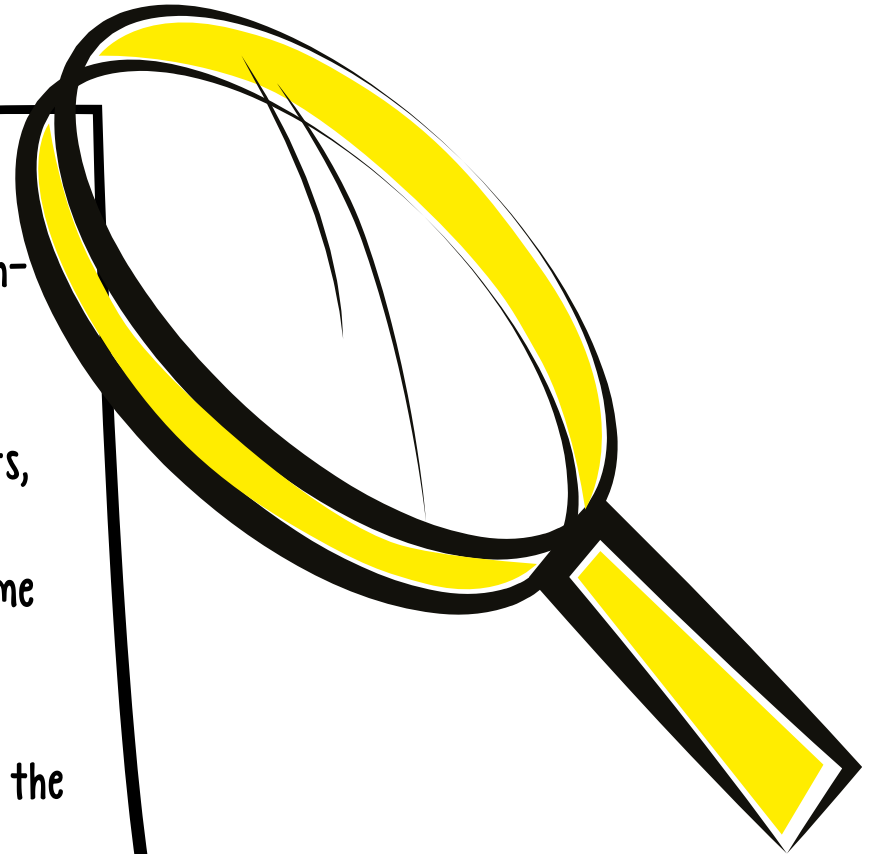


What do we know about smartphones in mental health care?

Smartphones can change the face of health-care by making it more participatory¹

Since smartphones have no geographic limits, they provide the opportunity to facilitate access to support and aids regardless of time and place²

Smartphones allows for healthcare to be in the pocket³



Strong evidence for the feasibility of using smartphones to enhance the care of people with schizophrenia

Smartphone Apps for Schizophrenia: A Systematic Review

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²Brigham and Women's Hospital, Department of Psychiatry, Harvard Medical School, Boston, MA, United States

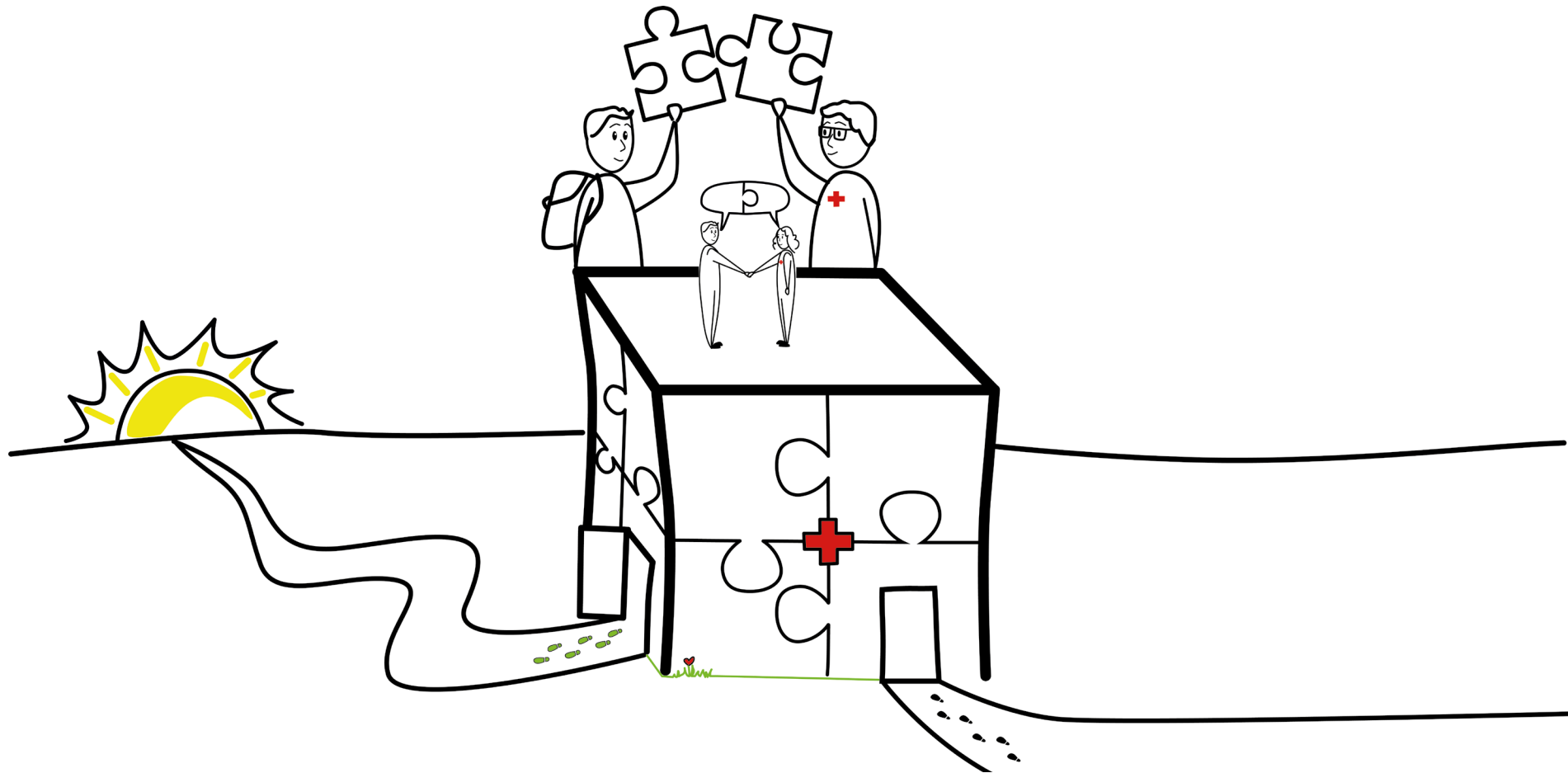
³Beth Israel Deaconess Medical Center, Department of Psychiatry, Harvard Medical School, Boston, MA, United States

*all authors contributed equally

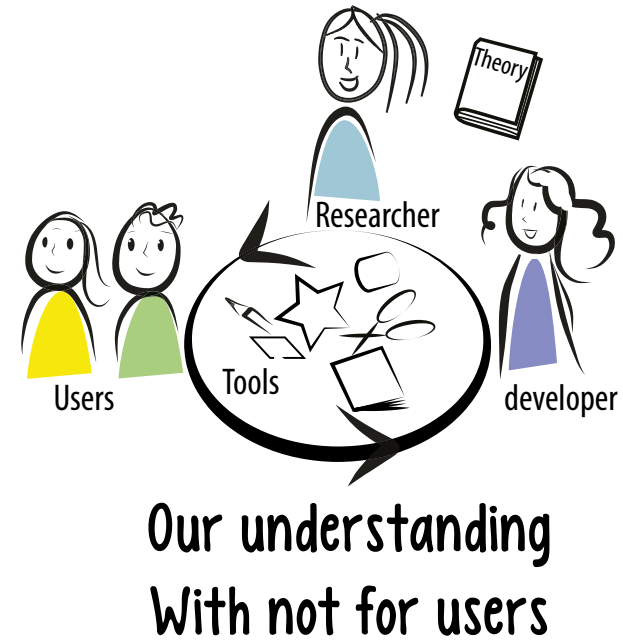
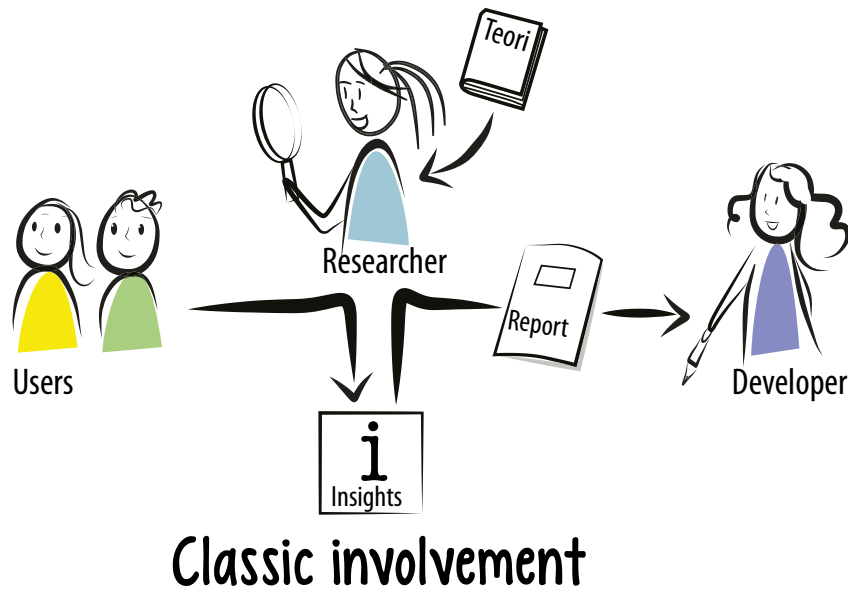
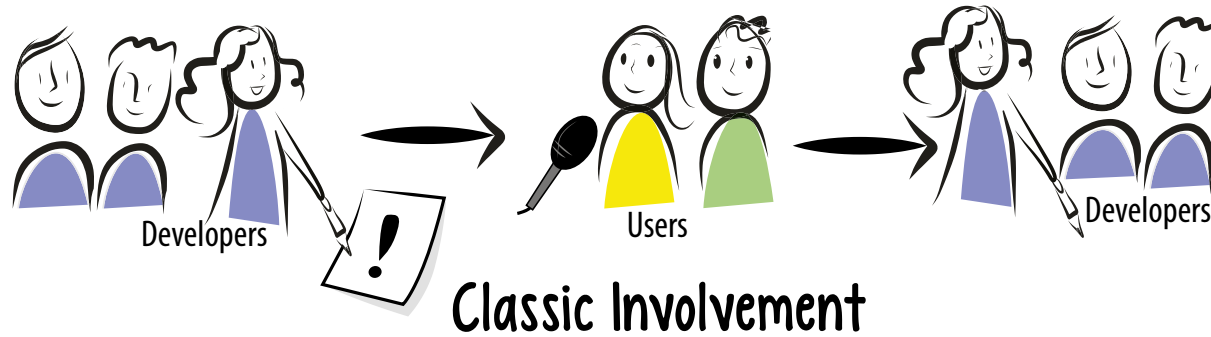
Conclusions: Although small, the current published literature demonstrates strong evidence for the feasibility of using smartphones to enhance the care of people with schizophrenia. High rates of engagement and satisfaction with a broad range of apps suggest the nascent potential of this mobile technology. However, there remains limited data on the efficacy of such interventions.

(*JMIR mHealth uHealth* 2015;3(4):e102) doi:[10.2196/mhealth.4930](https://doi.org/10.2196/mhealth.4930)

Collaboration in design of healthcare: co-design

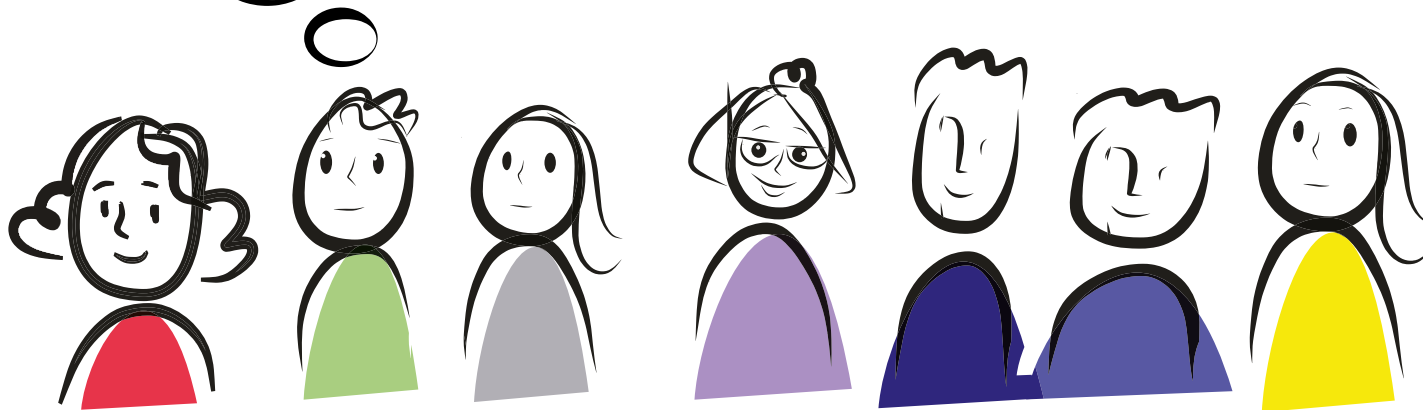


Co-design - a broad concept



With NOT for service users

Nothing about us, without us
P. Deegan



Central values of co-design

#We develop together

#We learn through participation

#We create a shared understanding

#Nothing about us, without us!

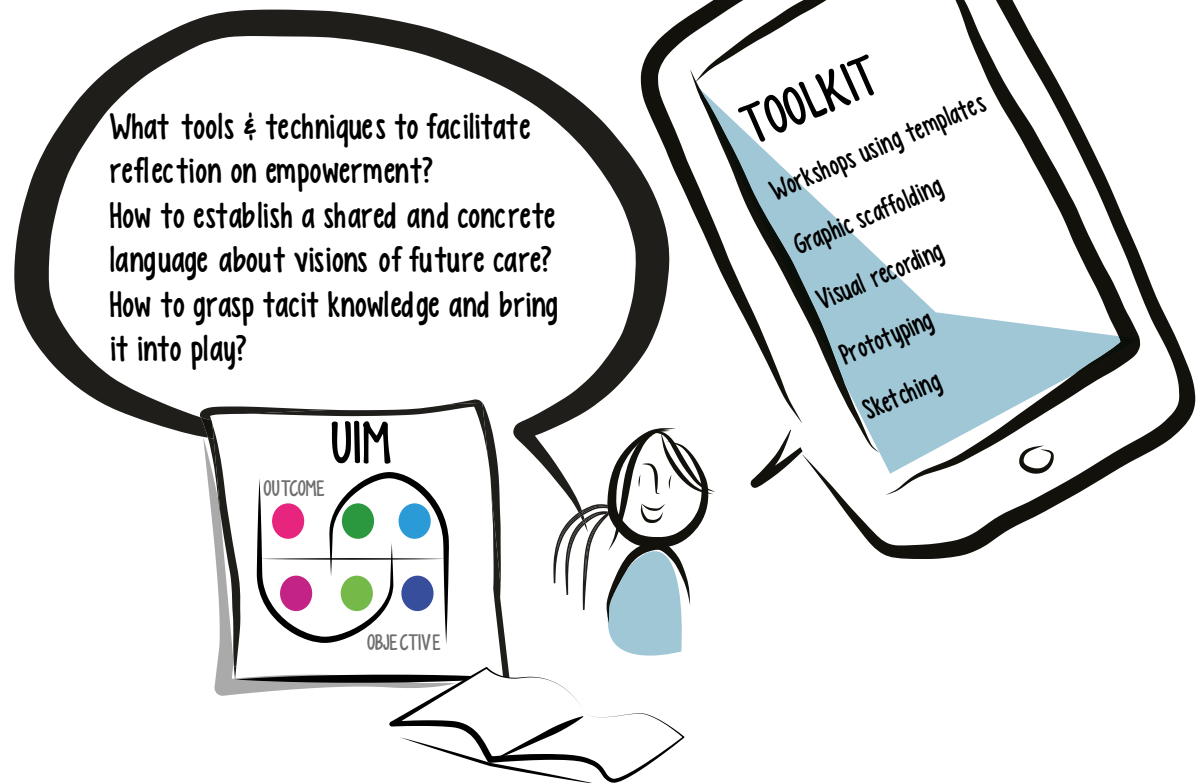
#We do it together

#We share attitudes and ideas



Participatory design: an approach to establish co-design

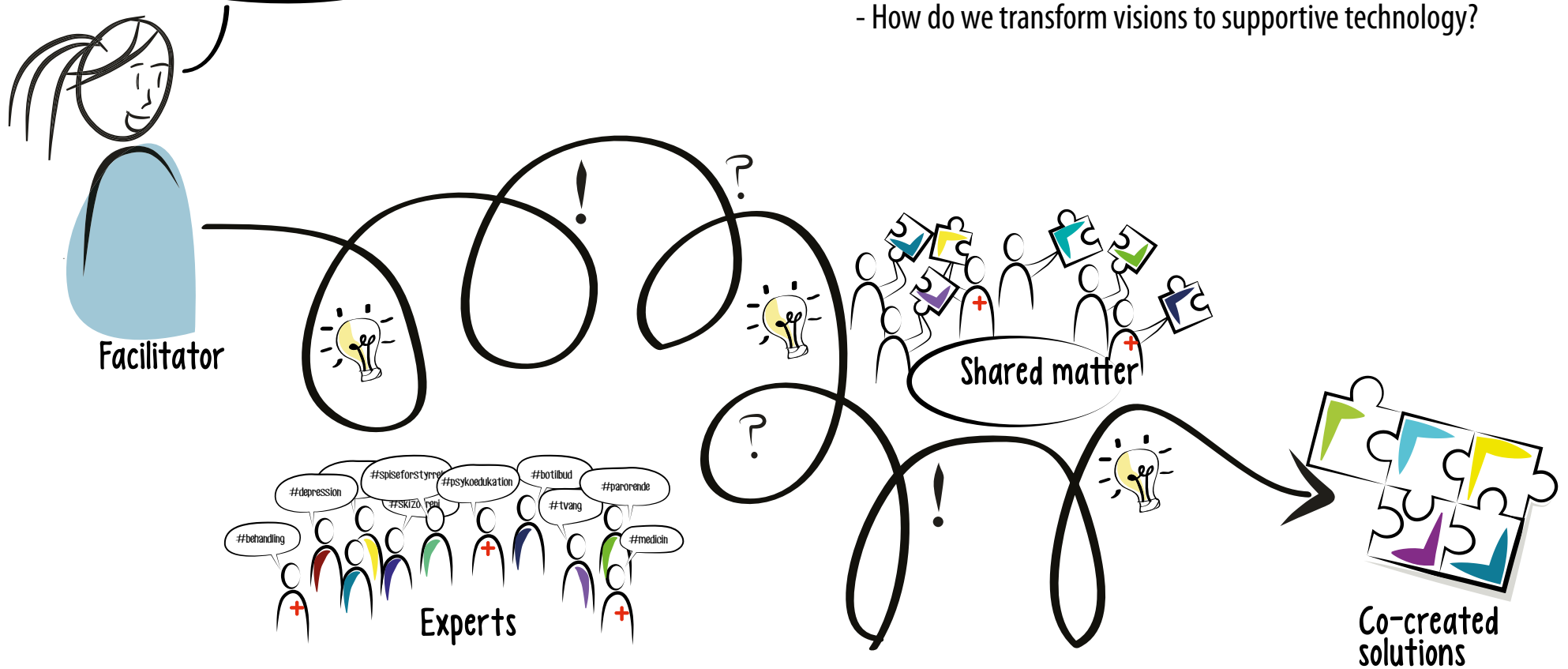
- Participatory Design (PD) is a research methodology and an approach to design¹
 - PD is based on AR principles of democracy, change (learning) and action
 - PD has its theoretical foundation in constructivism
- We used the User Innovation Management (UIM)² guide to plan the co-design process
- We used interviews and observations to create a starting point for the co-design process
- We used workshops and generative tools to establish co-design³



BUT... HOW?
WHO? WHEN?

Considerations:

- How do we create the environment for co-design?
- How do we open the black-box?
- How do we generate new insights?
- How do we create a shared language?
- How do we transform visions to supportive technology?



The PD process of designing the mHealth tool MindFrame

INVITATION

Eng Konge har skrevet den her blynd til at invitere dig med til at deltage i vores nye App til at hjælpe dig med at håndtere dit liv med skizofreni. App'en vil hjælpe dig med at håndtere dit liv med skizofreni på en nem og sikker måde. Du vil blive inviteret til at deltage i vores nye App til at hjælpe dig med at håndtere dit liv med skizofreni på en nem og sikker måde. Du vil blive inviteret til at deltage i vores nye App til at hjælpe dig med at håndtere dit liv med skizofreni på en nem og sikker måde.

APP'ENS VIGTIGSTE OPGAVER FOR DE UNGE

1. **AT BEGRIBE SKIZOFRENI I LIVET**

- FORMÅL: AFMYSTERE SKIZOFRENI
- INDVIRKNING: PERSONLIG INSPIRATION & VIDENSBANK

2. **AT HÅNDTERE SKIZOFRENI**

- FORMÅL: OVERENS-STRUKTUR
- INDVIRKNING: KLARERE OVERBlik

3. **AT GIVE SKIZOFRENI EN MENING Gennem DET LEVEDE LIV**

- FORMÅL: AT FØLGE SKIZOFRENI I LIVET VIA REFLEKSION
- INDVIRKNING: SELV-REFLEKSION - PÅLE BØNE MENINGEN OVER TID

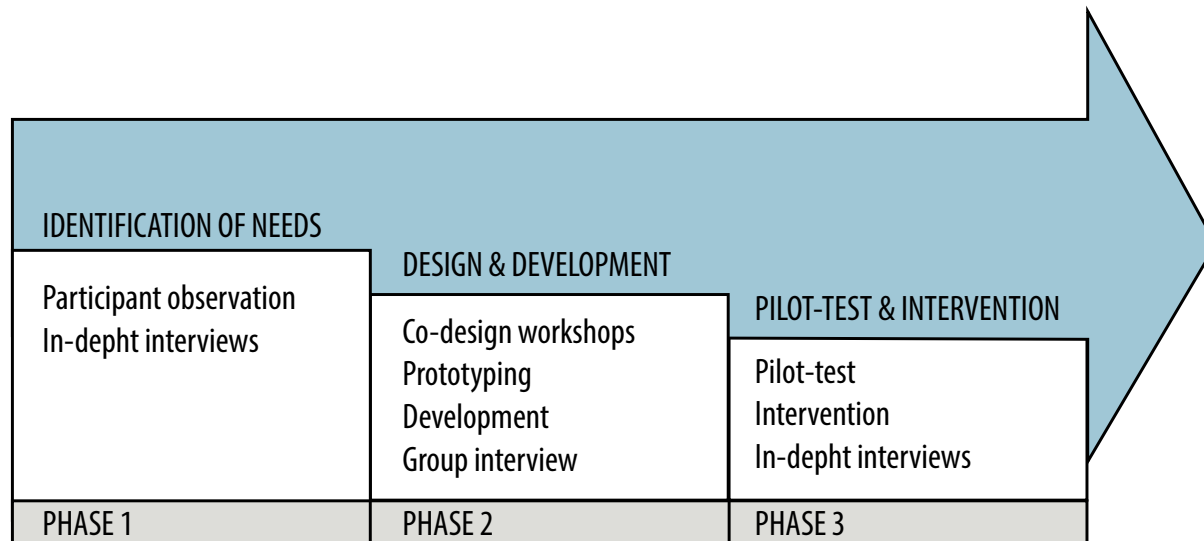
THE SUPPORTIVE ROLE OF THE NURSE IN A PSYCH PROTECTIVE

- DIAGNOSTIC
- HELPLINE
- ROCK
- CONSULTANT
- HOPE FACILITATOR
- ADVOCATE
- READER
- DAY-PLANNER
- NORMALIZER

DU KAN FØLGE PROCESSIONEN MED APP'EN I LØBEN AF WWW.GROZOFRETI.LS

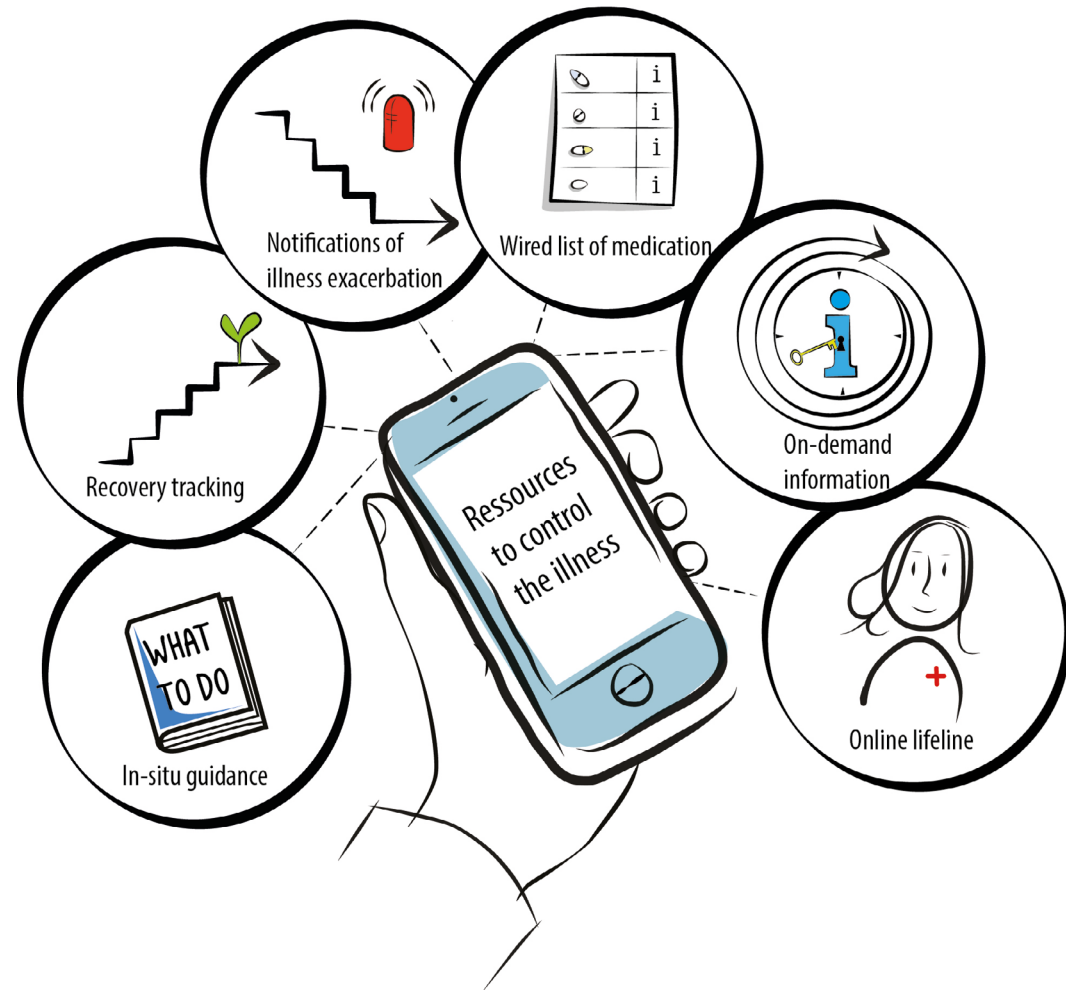
WWW.PROCESS INK.D

Phases and activities in the PD process



Phase I: Identification of needs & ideas of how the needs could be accommodated using smartphone technology

A need of support to gain power to control the new life situation



Phase 2: Furthering the needs & ideas

In-situ guidance: action plans

Recovery tracking: self-evaluation and visualizations

Notifications of illness exacerbation: triggers and alerts

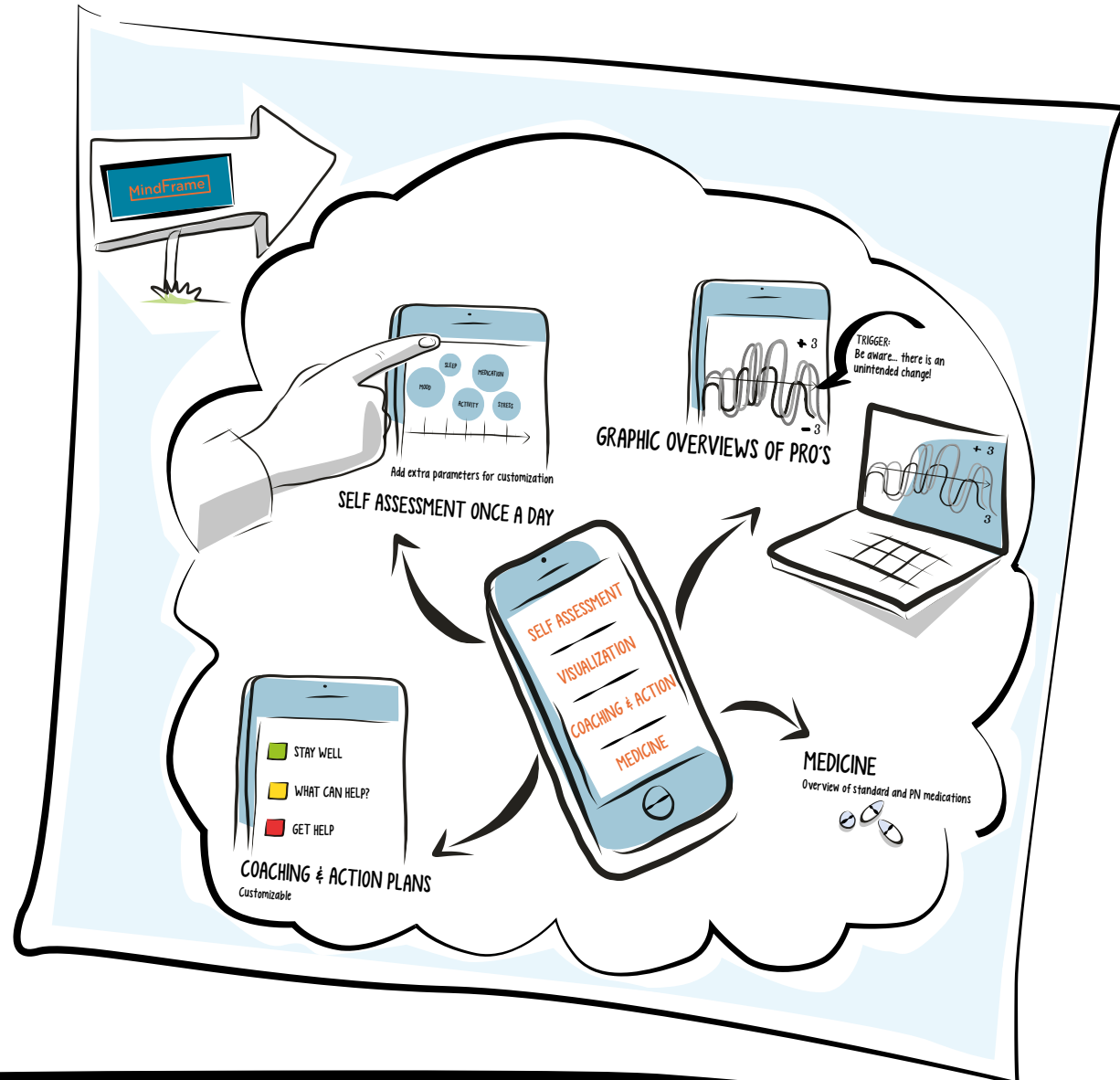
Wired list of medications: medicine overview

On-demand information: datasharing and feedback from HCP

Online lifeline: datasharing and feedback from HCP



Outcome of the co-design process



Please see: www.mindframe-app.dk

Phase 3: Pilottest

Key findings:

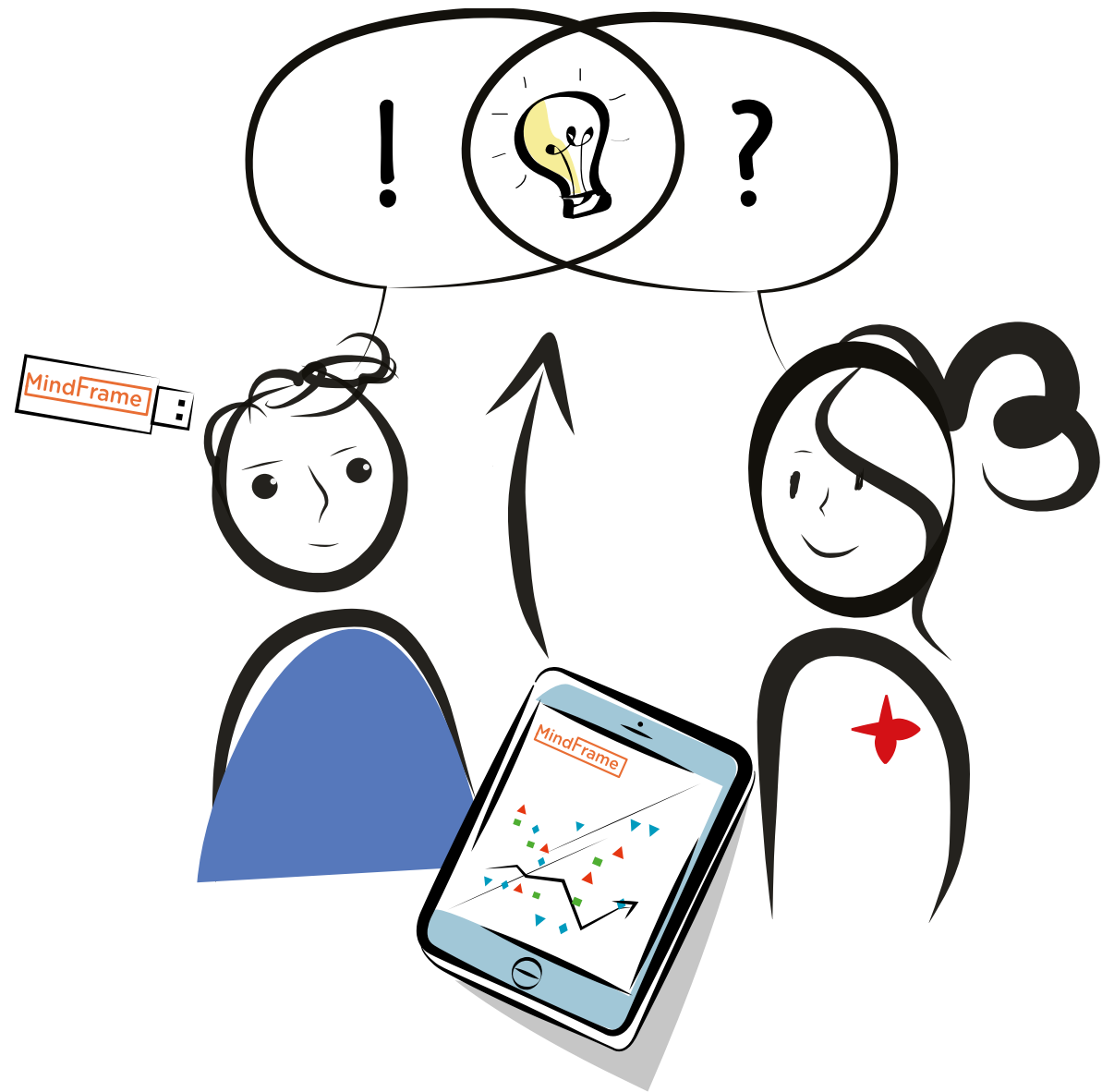
- Thorough introduction and adaption of experiences is needed
- Updates on the operating system impedes the app from running efficiently
- The app should work on iPhone and Android to meet users preferences



Phase 3: Intervention

How is MindFrame used?

- To support dialogue
- To aid collaborative understanding
- To support the memory

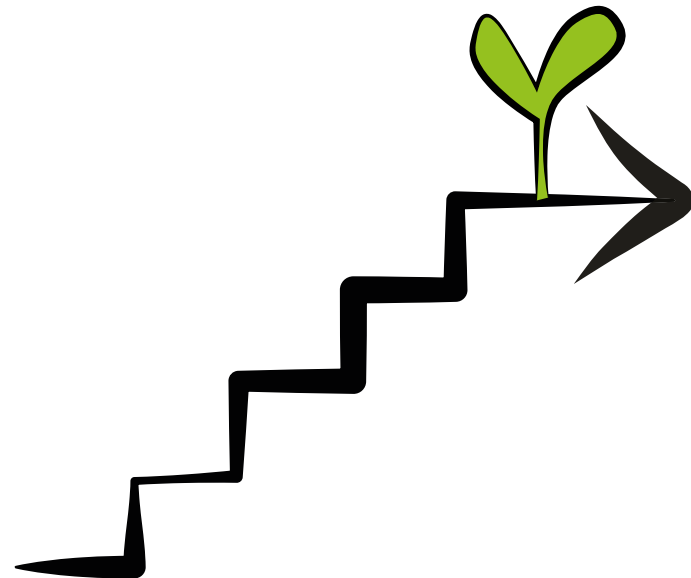


Phase 3: Intervention ... continued

What are the qualitative effects of using MindFrame in the management of everyday living with schizophrenia?

EMPOWERMENT: MF increases the sense of certainty and the power to stay on track in the new life situation

- Helps to keep track of mental health status
- Aids the track to fast and relevant treatment
- Encourages hope and reassurance
- Provides a basis for understanding the illness better
- Supports medication management
- Raises awareness of when to act to stay well

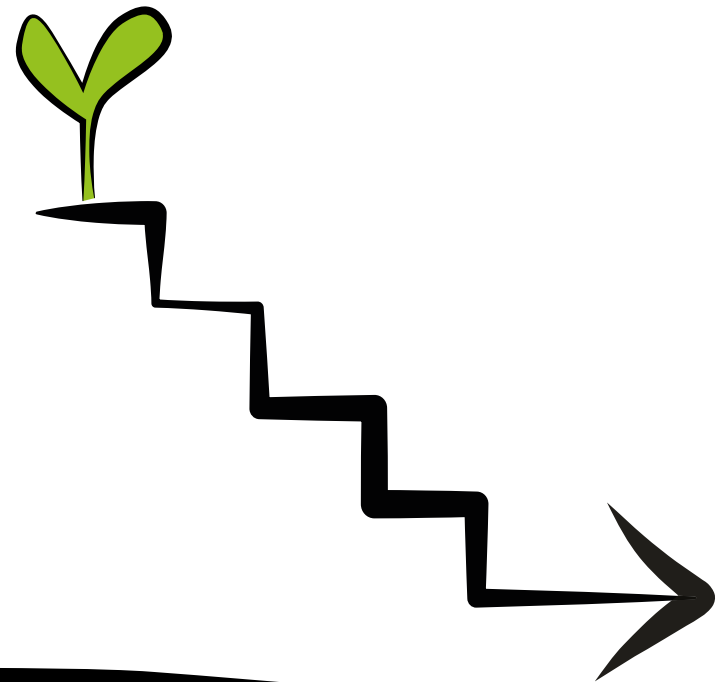


Phase 3: intervention ... continued

What are the qualitative effects of using MindFrame in the management of everyday living with schizophrenia?

DISEMPOWERMENT: MF reduces the amount of confidence and the sense of control over the new life situation

- Feeds uncertainty and concern
- Grows stress
- Increases the perception of being ill



Smartphones as part of tomorrow's healthcare system?

Ethical considerations:

- Over-involvement in own care?
- When in the course of care is mHealth useful?
- Is mHealth for everybody?

Adaption:

- Is the organization ready for the system?
- Organizational resistance
- Change of structures in the organization

Use:

- How to make use of person-reported data?

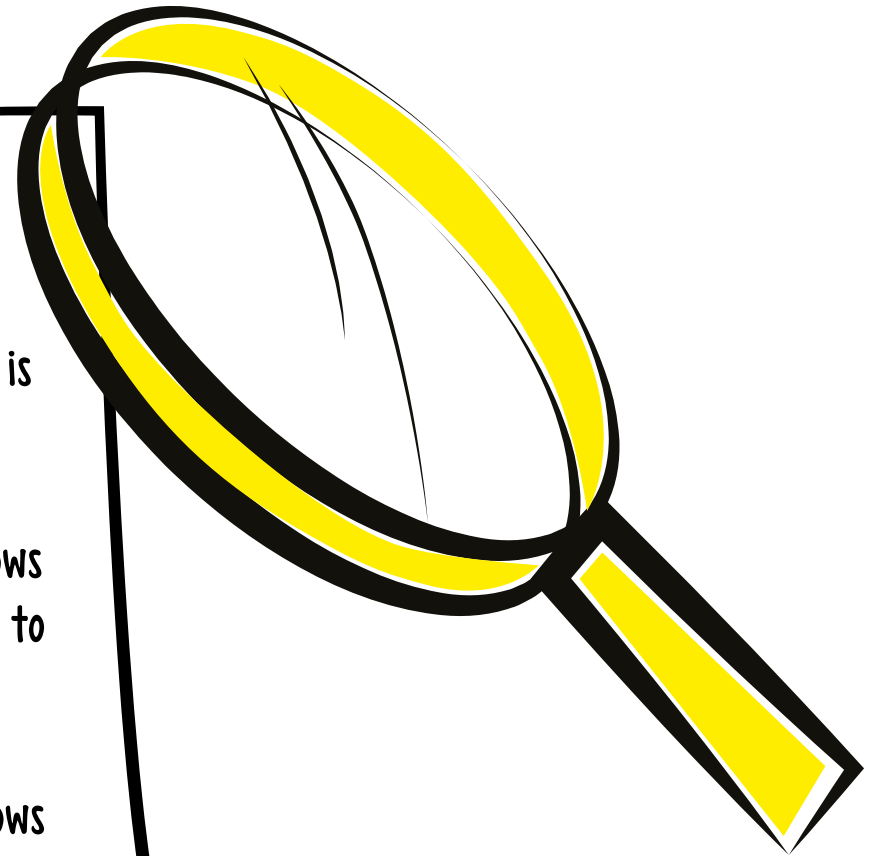


Take home message

Smartphone technology for tomorrow's healthcare system can be co-designed with mental health patients, if the process is carefully planned and conducted

Smartphone technology as part of tomorrow's healthcare system has pros, but also cons to take into consideration

Smartphone technology as part of tomorrow's healthcare system requires research to further understand its potential and limitations within the field of mental health treatment and care



Thanks!

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www.mindframe-app.dk