




ACT in Daily Life

Mobile technology fostering ACT-practice in daily life.

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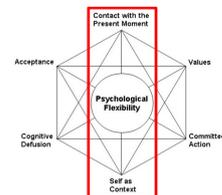
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Background: ACT & Context

- Acceptance and Commitment Therapy (ACT), act-in-context (Hayes et al, 1999).
- Contextualism: Any event is interpreted as an on-going act inseparable from its current and historical context.
- Functional contextualism: Predict and **influence** interaction of an organism with its context (Pepper, 1942; Hayes, 1993).
- Get ACT outside of the therapy room, and into the daily life of the patient; training at home => Intervention in context.

Background: ESM & Context

- Assessment in context : Experience Sampling Method (ESM). (Larson et al, 1983)
 - Ambulatory monitoring technique.
 - In the moment assessment of experiences (covert behaviour) and overt behaviour (in the context), not retrospective.
 - Direct evaluation of the context itself.
 - Multiple assessments per day (10x).
 - Monitoring methods: Watch & Diary, PDA, App.
- Multiple assessments enhances insight in interaction between experiences and context; awareness in daily life (Barta et al. 2012).



Background: Technology & Context

- Technology, enabling assessments and intervention in context.
 - ❖ eHealth / eMental Health (1999): Healthcare practice supported by electronic processes and communication.
 - ❖ Telemedicine (2000): Psychological treatment at a distance.
 - ❖ mHealth (2006): Telemedicine with the use of mobile devices.
- mHealth: Assessment & intervention in natural context via PDA / (smart)phone & Tablet.



ACT in Daily Life Training (AiDLT)

ACT in Daily Life Training.

➤ Ingredients:

- ACT: ACT-exercises & metaphors (practice).
- ESM: Multiple assessments during the day (awareness)
- Mobile technology: PsyMate (facilitation in own context).



- **What:** Additional mobile ACT-intervention, delivered with PsyMate in daily life of patients (prior ACT-training required).
- **How:** Monitoring (awareness) & ACT-training in context.
- **Duration:** 4 weeks, 3 consecutive days a week (1 hour a day).
- **Goal:** Practising ACT-skills in daily life, to improve PF & QOL.



AiDLT: ACT

- ACT-exercises (shortened to 2 minutes):
 - Acceptance (acceptance, defusion & mindfulness)
 - Commitment (values & committed action)
 - Interval-contingent exercises (when waking up, and before going to bed).
 - Signal-contingent exercises (prompted 5x a day).
 - Event-contingent exercises (when someone is aware of a negative experience => ACTION).
 - Exercises on demand (Standard).
- ACT-metaphors (cue):
 - Illustrated metaphors (acceptance, defusion & values) as a visual cue, to trigger the ACT-concept and awareness.
 - Signal-contingent (5x a day) and on demand.

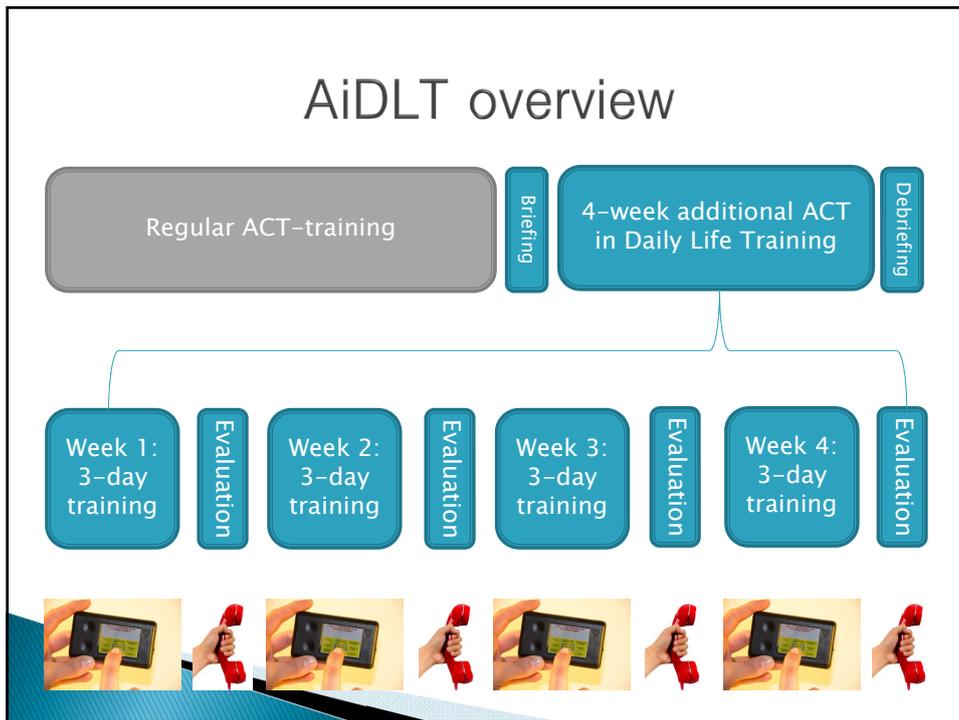
AiDLT: ESM

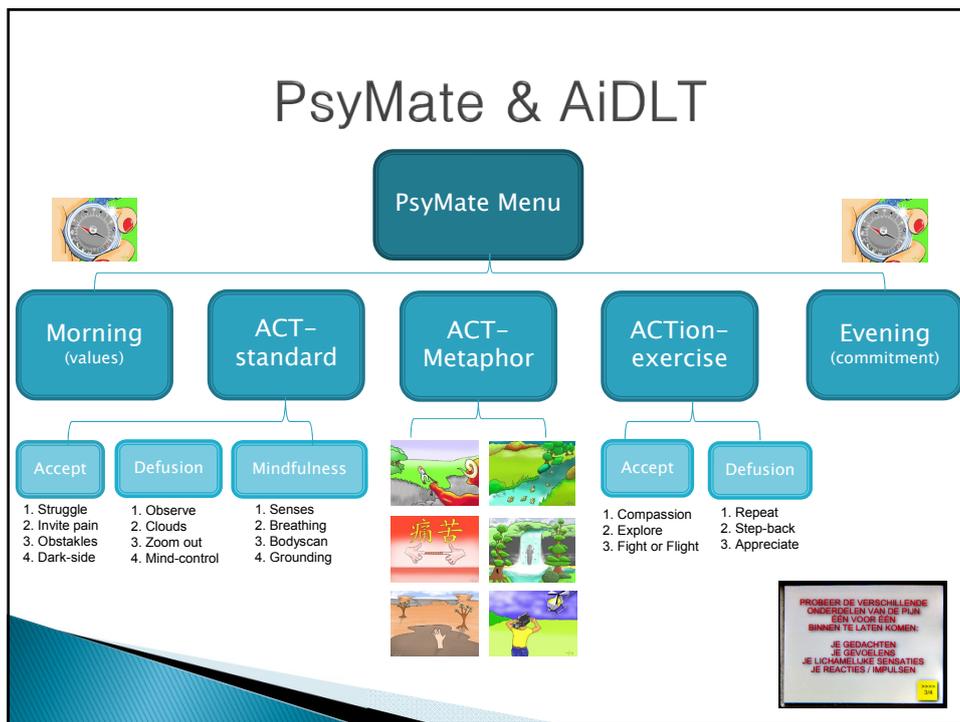
- ESM: Repeated sampling of experience.
 - Signal-contingent, 10x a day, 3 minutes.
 - Affect (eg: I feel down)
 - Cognition (eg: I am worrying)
 - Activity (eg: What am I doing)
 - Context (eg: Where am I / With whom am I)
 - Response-scales
 - Likert-Scale (1 - 7)
 - Categorical-scale (predefined, with other option).
 - ESM-I: ESM + intervention. Following each assessment, we offer an ACT-metaphor or a short awareness exercise.

AiDLT: Technology

- Technology: PsyMate (PDA-like mobile device).
 - Presenting ESM-questions & registration (onscreen text).
 - Presenting ACT-exercises (onscreen text).
 - Presenting ACT-metaphors (onscreen illustrations).
 - Menu available for ACT-exercises on demand.
- Signals: Screen flashes, sound (beep), vibrations.
- Input: Touchscreen, Function-wheel & Buttons.
- Answers stored in local memory PsyMate, easily exported from the device directly into a database.
- Dedicated device: Robust, reliable & high durability (4 weeks on one battery-charge).







Research Focus

- **Primary focus: Feasibility**
 - Acceptability
 - Feasibility

- **Secondary focus: Effect**
 - Psychological Flexibility
 - Coping (general)
 - Quality of Life
 - Symptom reduction (!)
 - Subjective reported effect

- **Approach: Prepilot => Pilot => 2x RCT**




Design & Results Prepilot



➤ Design

- Participants: 3 masterstudents (female, +/- 30 y.o.)
- 2 hour ACT-training, briefing, 1 week AiDLT (3 days), debriefing.
- Purpose: Test of principle & workability.

➤ Results

- ACT-Exercises: 100% compliance, 3 per day (acceptance popular).
- ACT-Metaphors: *Applicable in various everyday problems and thoughts.*
- ESM-I: 7 / 10 questionnaires answered (~ 4 minutes a questionnaire).
- Conclusions:
 - Feasible and workable (*"You find that it does something to you!"*).
 - Considerations: Prior ACT-training, personal briefing, choosing exercises, focus on one value.

Design Pilot

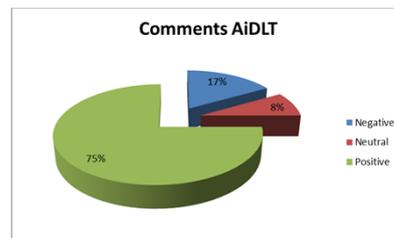
- Participants: Inpatients broad-spectrum clinic ($n = 60$).
- Design: 30 ACT + AiDLT vs 30 ACT (active matching).
- Instruments:
 - Telephone evaluation (weekly assessment user experience).
 - PsyMate (ESM): Affect, Cognition, Activity & Context.
 - Self-report questionnaires: FIT-60 (!), UCL, BSI, Happiness.
- Procedure:
 - ACT-intervention (6-week group, 2 hours per session)
 - Pretest (self-report questionnaires)
 - Briefing, AiDLT (4-weeks), Debriefing
 - Posttest (self-report questionnaires)
- Statistical analyses:
 - Multilevel-analyses for ESM-data.
 - Analyses of variance for questionnaires.

Preliminary results Pilot



- Primary focus: Feasibility
 - Current status; 13 included, 6 in training.
 - Participant descriptives ($n = 6$).
 - Gender: 50 % male, 50 % female (3/3).
 - Age: 35–56 ($m:45,5$ $sd: 7,85$)
 - Psychopathology: Diverse; mood, anxiety, burn-out.
 - Data on first telephone evaluation (after week 1).
 - Qualitative data (open)
 - How did it go this week?
 - Did the AiDLT help you?

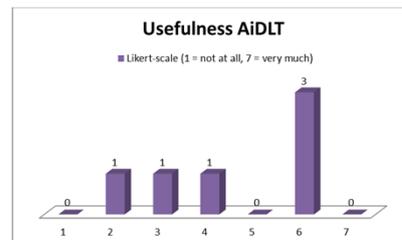
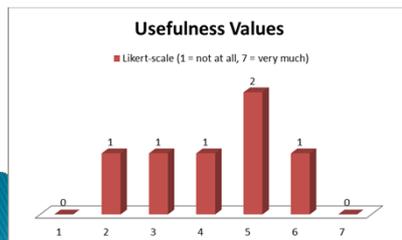
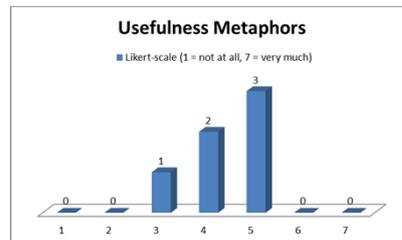
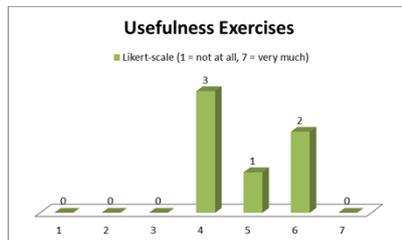
"It helped me practice more with ACT than I would normally do"
"It kept me aware of myself"



Preliminary results Pilot (continued)



- Quantitative data (Likert-scales)



Conclusion

- ACT & Technology = ACT in context (AiDLT)
 - Feasibility AiDLT?
 - AiDLT seems to be a workable intervention.
 - Patients are generally enthusiastic about the training.
 - It helped patients to practise more with ACT.
 - Effect AiDLT?
 - More time needed to determine effectiveness.
 - First impression:



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Future developments

- Future studies
 - INTERACT ($n = 80$): RCT with AiDLT vs Placebo in population at risk state for psychosis (16–35 y.o.).
 - SMARTSCAN ($n = 66$): RCT with AiDLT vs Placebo in population with subclinical stage of psychosis & depression (16–25 y.o.).
- New technology: PsyMate 2.0 (app)

Past: Watch & Booklet



Present: PsyMate (PDA)



Future: PsyMate 2.0 (app)



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Thank you, for your attention!