

WP7 Implementation Strategies, Processes, Outcomes and Costs - Process evaluation -

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WP7 - Objectives



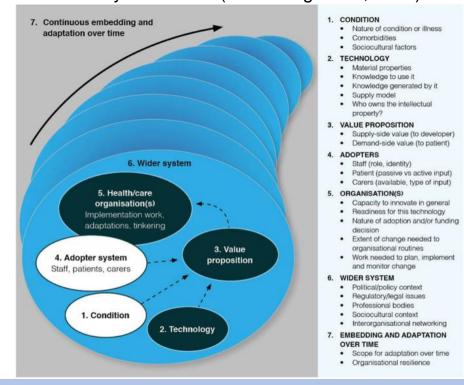
- 1. To <u>tailor</u>, <u>optimize and evaluate</u> detailed <u>implementation strategies</u> for the Digital Mobile Mental Health intervention (DMMH) at each site and <u>identify putative contextual factors</u> based on an a priori assessment using the NASSS framework (**task 7.1**, with WP5, task 5.1, 5.2)
- 2. To investigate i) Reach, ii) Effectiveness, iii) Adoption, iv) Implementation and v) Maintenance of implementing the DMMH in routine care (RE-AIM) as a basis for assessing the public health impact of implementation and scale-up of the DMMH (task 7.2)
- 3. To examine the <u>process</u> of implementing the DMMH in routine care and identify in vivo configurations of <u>contexts</u>, <u>mechanisms of change</u>, and how these are associated with outcomes of implementation and intervention (**task 7.3**, with WP5, task 5.3)
- 4. To investigate the <u>economic costs</u> of implementing the DMMH intervention, determine <u>cost-utility</u> and <u>extended cost-utility</u> of the intervention vis à vis standard care (task 7.4)

Realist evaluation and NASS



- Realist evaluation approach: to evaluate relevant contexts, mechanisms, and outcomes from the DMMH implementation
- Configurations of contexts, mechanisms of implementation, and outcomes of implementation are explored across all levels of agents within the intervention and its implementation
 - Participants, clinicians, teamleads
 - socio-economic and contextual factors impacting intentionality, behaviour and decision-making
 - unexpected consequences on service users and clinicians (impacts on teams and organizations)

Non-adoption, abandonment, scale-up, spread, and sustainability framework (Greenhalgh et al, 2017)



Mixed-methods approach



1) Qualitative Interviews

- Semi-structured interviews
- Following a realist evaluation approach combined with RE-AIM and NASSS frameworks
- What works, for whom, in what circumstances, in what respects, to what extent, and why?

2) Quantitative questionnaires

- Use of validated measures: MTUAS, ORCA
- A new questionnaire informed by the interviews
- focus on the processes of implementation of DMMH in health care settings.

CIP:

- Initial program theories will be developed based on initial semi-structured interviews.
- Overarching program theory and accompanying context-mechanism-outcome (CMO) configurations will be tested among
 intervention users (individual interviews with participants who have completed the DMMH intervention) as well as those who
 deliver the intervention (i.e., clinicians) and providing the context of intervention delivery (i.e., managers/system administrators),
 through iterative data collection.



1) Qualitative Interviews



Intervention logic model

Core team: Jessica, 2 GE Master students, Simona, Erica, Islay, Koraima, Michel Wensing, Matthias Schwannauer

Draft of context-mechanism-outcome (CMO) configurations
 Implementation logic model

implementation logic model					intervention logic model							
Factors	Core inputs	Immediate impacts	Short term outcomes	Main outcomes	Impact		Factors	Core inputs	Immediate impacts	Short term outcomes	Main outcomes	Impact
Personal factors service users: affinity for technology, security concerns, stigma, and expectations on psychotherapy Personal factors clinicians: profession, heuristics in dealing with information, expectations on psychotherapy, preferences, needs Service characteristics: team size, mission length, rotation of providers, role of team lead Country / health system: who makes the decision? Digital patient	Implementation strategies: a) Technological strategies: information technology system, support b) For clinicians: - manual - cheat sheets - workshop - feedback - support - website c) For service users: - manualized information - counselling - reminders d) For clinical units: - contact with team leads - newsletter - involvement of local clinical opinion leaders	Active contact about the DMMH with clinicians and team leads Exchange about the DMMH within teams Reminders of the DMMH for service users, clinicians, and team leads Actual utilization of implementation strategies (i.e., participation in workshops e.g.) Adaption and optimization of implementation strategies per country after feedback Help with technological problems	Mechanisms Service users: Increased motivation to use the tool (more frequently) Clinicians: Increased motivation to provide the tool to patients Increased competence in the usage of the DMMH Having an infrastructure for information Team leads: Increased involvement	Participant level: Active usage of the DMMH Higher compliance Higher accessibility of the DMMH for patients Clinician level: Active usage of the DMMH Increasing competence and independence in usage of the DMMH	Organisation level: Uptake of DMMH in health care practice Maintenance of use after the phase with implementation strategies Identification and reduction of barriers to implementation	service affinite technesses securi stigma expect psyche Persor clinicia profes heuris dealin inform expect psyche prefer Service charace team: length provid Count system makes decisie	ology, ty concerns, ty, and tations on otherapy nal factors ans: assion, tics in g with nation, tations on otherapy, ences, needs e teristics: size, mission t, rotation of ers ry / health n: who	Assessment of symptoms (monitoring) using MoMent App The MoMent App provides feedback to service users on their symptoms, affect, etc. Dashboard for clinicians offers data access to a) personal patient data b) from their subjective perspective Discussion of patient and clinician about MoMent data	Self-reflection via MoMent App and its questions Visualizations of data for clinicians and patients Feedback for service users directs by the App and via clinicians feedback for clinicians on their patients and their treatment process: direct, continuous feedback of treatment outcomes Clinicians and service users are encouraged to talk and agree on treatment goals Confrontation	Mechanisms Insight / awareness / pattern recognition / meta-cognitive understanding Behavioural activation, increased positive affect Increased motivation Increased Self- directed well-being / self-care Clinicians become aware of fluctuations Increased feeling of being listened to	Participant level: Service user engagement Quality of life Empowerment Shared decision-making Self-management Clarity in engagement Clinician Level Insight into patients' goals, symptoms, priorities Access to data Also: positive effect on the therapeutic relationship	Organisation level: Reduction of cost in the long run (maybe 6 months?) Improvement in health outcomes in patients Continuity of care, better engagement with services Improvement in service provision Bi literacy between services will improve



Interview guide

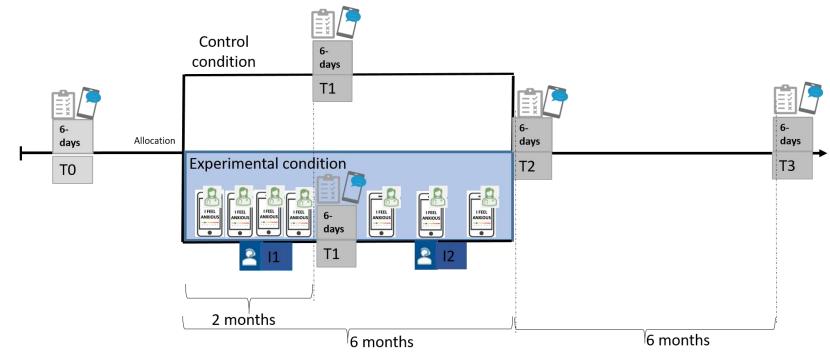


- Interview guide for service users, clinicians, admins drafted by (02.08.2022)
- Interview guide commented by Michel and Matthias
- Interview guide was translated in local languages
- Training of staff (6.6.23)
- Pretesting interviews in each country (17.07.2023), meeting for consolidation of feedback from pretesting
- Release of version 1 of the interview guides (31.07.23)
 Interview guide clinicians final version 31_07_23.docx (basecamp.com)
- Data collection, i.e. interviews
- Meeting with Maria Wolters (WP5), Matthias Schwannauer, Michel Wensing, Uli Reininghaus, Anita Schick and Jessica Gugel on the procedure and next steps (27.02.2024)





- Target sample size: n=120
 - 40 service users
 - 40 clinicians
 - 40 managers/system administrators (i.e., 10 per country per group with the aim to include participants from various backgrounds).
 - Time point: during and at the end of the 6-month intervention period









LE/ BI	LO / LO_CAMHS	MA/ WI	BR	КО
Clinicians: 6 (of10)	Clinicians: 4 (of10)	Clinicians: 12 (of10)	Clinicians: 4 (of10)	Clinicians: 0
Patients: 6 (of 10)	Patients: 7 (of10)	Patients: 9 (of10)	Patients: 5(of10)	Patients: 0
Admins: 2 (of 10)	Admins: 1 (of10)	Admins: 8(of10)	Admins: 1 (of10)	Admins: 0

- All service user interviews should be conducted in the time frame between T1 and T2
- Clinicians can be interviewed as soon as their first patient has finished T1; more data will be available later; but keep in mind that they might rotate out of the unit etc.





LE/ BI	LO / LO_CAMHS	MA/ WI	BR	КО
Clinicians: 0	Clinicians: 0	Clinicians: 0	Clinicians:0	Clinicians: 0
Patients: 0	Patients: 0	Patients: 9	Patients: 0	Patients: 0
Admins: 0	Admins: 0	Admins: 8	Admins: 0	Admins: 0

- UK: uses transcription service
- Al-based program ,NoScribe' that may be used to facilitate transcription

Interviews - overview



Data collection Transcribe Data coding Papers

Codebook



- First draft for a codebook will be developed based on German data as these are available
- Per country: adaption of the codebook for each country based on the available data

Team: Jessica, Michel until:

• LE/BI: ?

BR: Adam

• KO: ?

Interviews - time schedule



Data collection Transcribe data Data coding Papers

Site	Data will be collected untill	Tanscription completed untill	Coding	Draft
MA/ WI	06/2024	07/2024		
LE/BI				
LO/CAMHS				
BI				
KO				





Site	Topic	Author
Mannheim/Wiesloch	Process evaluation with patients	Jessica
Mannheim/Wiesloch	Master thesis: Admins	Jens
Mannheim/Wiesloch	Master thesis: Clinicians	Simon
Each country	Realist evaluation with all stakeholders, but per country	Germany: Jessica? UK: Belgium: Slovakia:
All countries	Descriptive overview over all countries	Germany: Jessica? UK: Belgium: Slovakia:

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Questionnaire



Aim:

To document the implementation of the DMMH in health care settings processes in each of the sites as well as to explore the role of a range of contextual determinants (as specified in the NASSS framework) of implementation and intervention outcomes.

Method:

Development of a questionnaire aimed at clinicians (or for all stakeholders?)

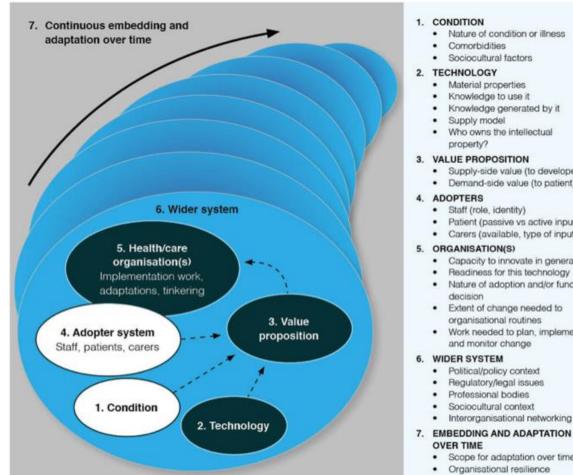
Decision:

The questionnaire will not be assessed in this sample

Questionnaire

IMMERSE

- What should the focus of the questionnaire be? → broad focus versus focus on one specific NASSS domain
 - e.g. domain 3 ,value proposition'



1. CONDITION

- Nature of condition or illness
- Comorbidities
- Sociocultural factors

2. TECHNOLOGY

- Material properties
- Knowledge to use it
- Knowledge generated by it
- Supply model
- Who owns the intellectual property?

3. VALUE PROPOSITION

- · Supply-side value (to developer)
- Demand-side value (to patient)

4. ADOPTERS

- Staff (role, identity)
- Patient (passive vs active input)
- Carers (available, type of input)

5. ORGANISATION(S)

- Capacity to innovate in general
- Readiness for this technology
- · Nature of adoption and/or funding
- · Extent of change needed to organisational routines
- · Work needed to plan, implement and monitor change

6. WIDER SYSTEM

- · Political/policy context
- Regulatory/legal issues
- Professional bodies
- Sociocultural context
- Interorganisational networking

OVER TIME

- · Scope for adaptation over time
- Organisational resilience





Assessing complexity in the 7 NASS domains

	Agree	Disagree	Not applicable or don't know	Likely to get more complex in next phase
TECHNICAL COMPLEXITIES				
 The technology does not yet exist in a robust and dependable form 				
2. The technology is unfamiliar to the project team				
3. The technology supply chain is not yet in place				
 The technology cannot be installed until the system is upgraded (e.g. hardware, bandwidth) 				
5. A key technology needs to be installed across multiple technical systems to achieve 'integration'				
Introducing the technology will require significant changes in care pathways and organisational routines				
 Quality standards and regulatory requirements for using the technology in a health/care setting have not been fully defined (or key stakeholders don't know about them or accept them) 				
TOTAL TECHNICAL COMPLEXITY SCORE	/7			/7

Questionnaire on sustainability of gamified mobile health apps (Mustafa et al., 2023)



Based on the social comparison theory
Subscales:

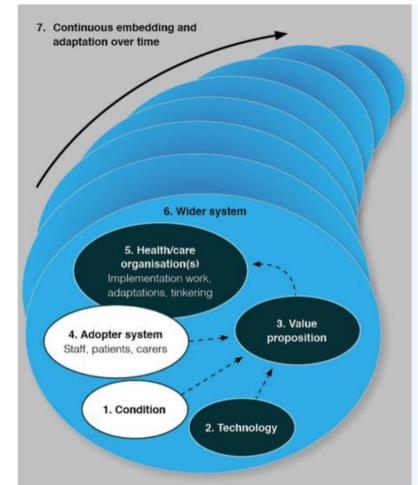
- Perceived authonomy
- Perceived competence
- Perceived relatedness
- App quality
- Perceived benefits
- Perceived hedonic gratification
- Perceived competitive climate
- Social comparizon
- Facilitating conditions
- Intrinsic Motivation
- Extrinsic Motivation
- Continued Use

Healthcare | Free Full-Text | An Integrated Model for Evaluating the Sustainability of Gamified Mobile Health Apps: An Instrument Development and Valid

Discussion and decision:



What should the focus of the questionnaire be?



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- Sociocultural context
- · Interorganisational networking
- 7. EMBEDDING AND ADAPTATION

OVER TIME · Scope for adaptation over time

- · Organisational resilience

WP7 – Economic evaluation

