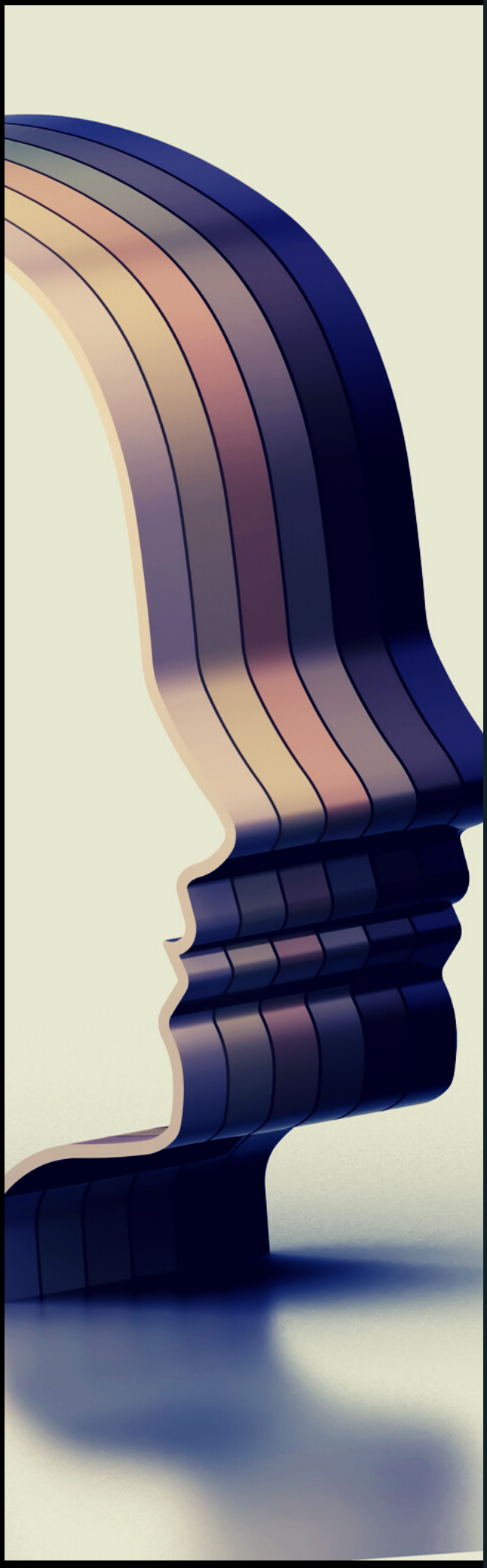

Think LAB

NIHR | Applied Research Collaboration East of England

Human-Centred Design for Mental Health Services

Workshop

Exploring the use of Human-Centred Design (HCD) methods to improve the digital transformation of frontline mental health services in the East of England

Hosted By :

University of Cambridge ThinkLab & NIHR Applied Research Collaboration, East of England

Facilitated By :

PA Consulting

January 27 2023

NIHR | Applied Research Collaboration East of England

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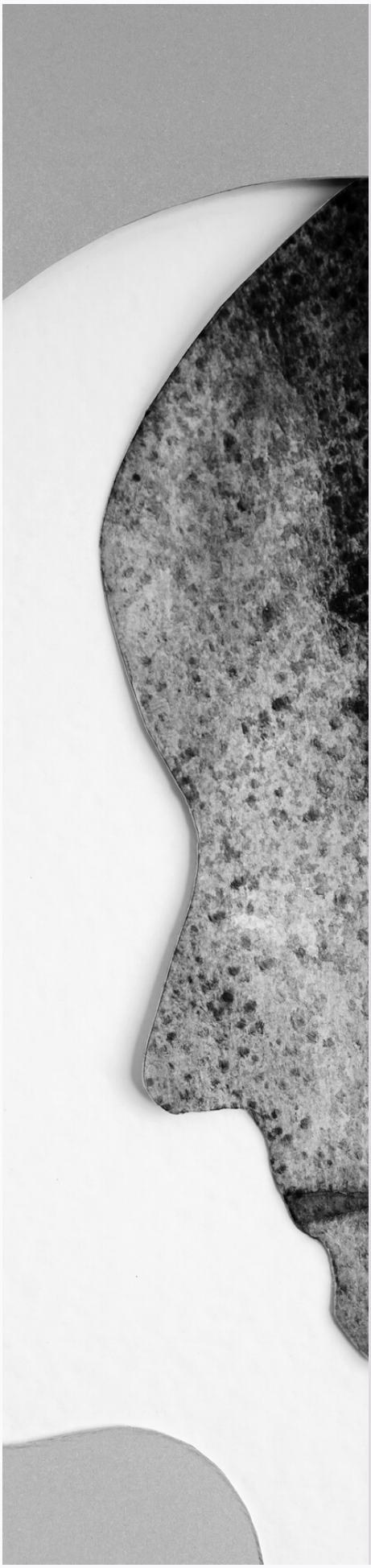
Acknowledgements

We would like to thank PA Consulting for hosting and facilitating this workshop for us on a pro bono basis. We would also like to thank our partners at Cambridgeshire and Peterbourough NHS Foundation Trust (Kathy Hartley, Kathryn Faulkner and Oliver Morley) and Neil Wood (Health & Wellbeing Programme Manager, Office for Health Improvements and Disparities) for their contributions to the project. We are appreciative of all workshop attendants both in-person and online, especially in the context of the time and resource constraints that were one of the topics of the day.

TABLE OF CONTENTS



Executive Summary

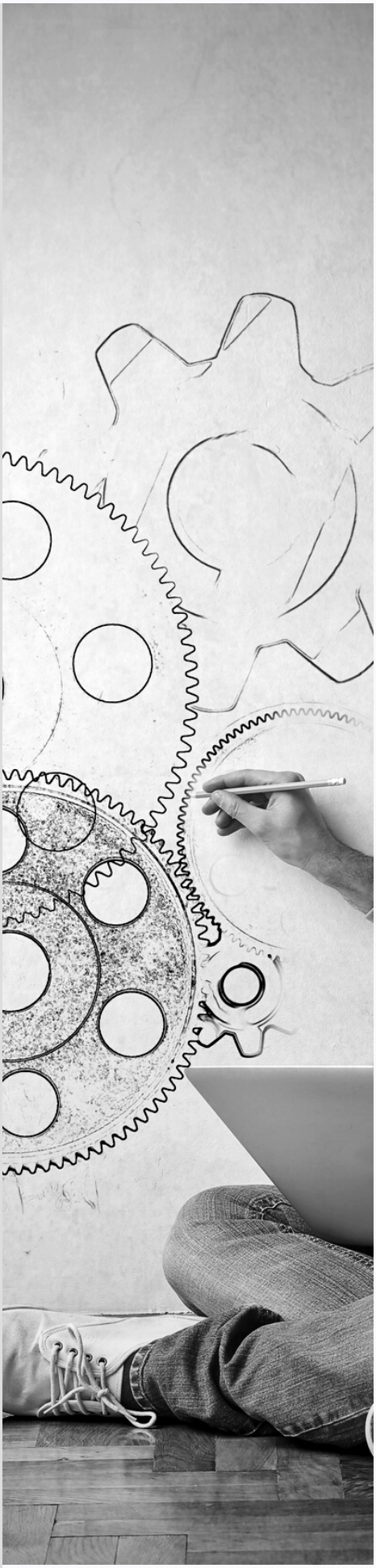
Overall, our aim is to raise awareness on the opportunities offered by systemic and patient-centred approaches to designing mental health services. Our goal is to reach national policy and frontline mental health workers. The workshop began to create new connections and synergies, enabling the use of these methods to help improve and deliver better Mental Health services.

The key objective for the workshop was to introduce the principles of Human-Centred Service Design (HCD) within the context of mental health service. The hope is that HCD can be a valuable methodology through which we can improve mental health service provision in the East of England region, and especially when and where digital tools may be introduced. The goal for this first workshop was to familiarise and provide participants with a better understanding of what HCD is, how it works, and how a team would apply for mental health services.

Executive Summary

This report provides a summary of the workshop, as well as key takeaways and our next action items. The first part of the report provides an overview of HCD and the key steps in the service design process. This part is intended as a light methodology guide for how to implement HCD. It covers the main steps from the morning training session: plan, discover, define, ideate, prototype & test, and embed. The next section reports key questions that were asked about HCD. Participant questions sought clarification on key terms and ideas, and also posed challenges to the application of HCD in the complex domain of mental health.

The second part of this report includes summaries of what was covered in the afternoon workshop exercises, where participants began to work with HCD as a tool for mental health services. The first section includes the three hypothetical service user pathways that were discussed, and highlights the difficulties that people may face in accessing mental health services.



Executive Summary

The second step includes the discussion on what the barriers to implementing HCD would be for the context of mental health services, as well as what some solutions to these challenges may be. The final section in this part of the report includes the early stages of ideation for solving some of the key issues in the service model.

The last part of the report summarises the key takeaways from the report, and what the next steps are.

- **the remaining need to work on the ideation process**
- **to begin developing a digital mental health forum for the region**
- **to develop the project evidence review towards best practice**
- **to speak to workshop attendees one-to-one**
- **to incorporate feedback on the process**

Project Background

Mental health services are under severe pressure from the social and economic fallout of the pandemic, a cost-of-living crisis, and rising personal debts. As the ARC's work across the East of England shows, we are seeing growing backlogs and waiting times, staff shortages, a lack of interoperability between frontline services, insurance providers and employers, and the decline in the well-being of frontline staff.

It is within the context of an exponential rise in demand for mental health services and a market bubbling with large volumes of ventures and digital platforms offering these services, that emerged the pressing need to critically examine the design and use of digital Mental health service provision and support.

The ARC EoE's Mental Health Infrastructure (MHI) project and the fellowship of Diane Pochard at UK Department of Health and Social Care has brought these strands of research together. Diane is currently a Policy Fellow at the Centre of Science and Policy at the University of Cambridge (CSAP) and Capability and Policy Engagement (CAPE). One aim of the ARC EoE and the CSAP/CAPE fellowship is to bring together policy decision-makers and academics to address the challenge of improving mental health services for all.

The need for this project has arisen from the NIHR Applied Research Collaboration (ARC) for the East of England and the policy activities and observations of key policy and frontline service stakeholders.

Project Background

Dr Adam Coutts, Professor Daksha Trivedi, Diane Pochard and Dr William Fleming examined how digital mental health platforms could be better designed, more user-centred and what service pathways and theories of change need mapping out. Further to these meetings, we identified the opportunity to build a forum network of engaged policy and healthcare professionals to drive change towards a more joined up and user-centred approach for the design of mental health services. This workshop was the first step into that direction.

The current project is exploratory and scoping research. However, given the network we have developed, ongoing policy changes and demands it is a unique opportunity to help shape policy design and eventually legislation. It will allow us to actively demonstrate best practice for evidence-based policy making and digital transformation of mental health using human centred design methods.

For more information on the NIHR Applied Research Collaboration work on mental health please visit the website or get in touch with this project's team members (contact details below).

Human-Centred Service Design Overview

PA Consulting introduced the workshop attendees to Human-Centred Service Design (HCD). Human-centred design is a problem solving technique to identify the needs and challenges of frontline workers and service users, the issues encountered through pathways, and to develop a solution which places user needs at the centre of a product or service. For PA, 'human-centred service design is a consistent and collaborative approach to solve complex, messy human problems'.

> ***The solution may or may not be de digital.***
>
> ***Quote from one attendee***

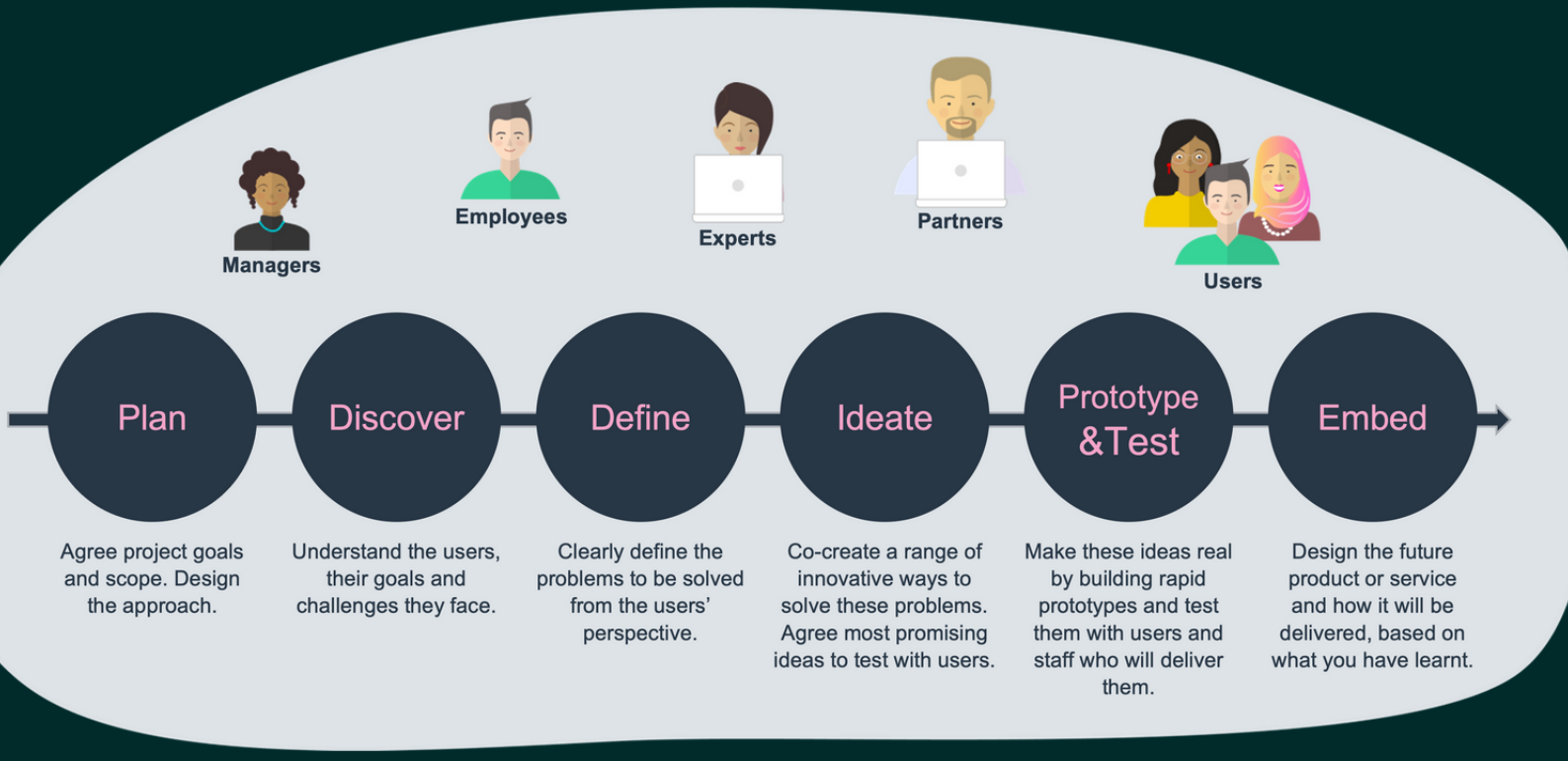
HCD includes a good deal of technical language from the design and technical management sphere, where it was developed as a philosophy for delivering digital products. While sometimes the solution to a problem in the mental health service pathways may be a specific digital tool, HCD is an approach to improving the whole end-to-end service, digital or otherwise.

HCD is an 'agile' approach to service provision, which means that it begins with a problem and designs the solution most appropriate and relevant. Agile may seem obvious, but it is placed in contrast to 'waterfall' approaches which offer a tool or solution, and then try to find a problem to solve.

Methodology

Human-centred design is consistent & collaborative approach to solve complex, messy human problems.

HCD offers a methodology for solving problems in existing service user pathways. There are six stages to HCD: plan, discover, define, ideate, prototype & test, embed.



Methodology

Plan

- Agree the scope of the project
- Identify and map the actors, stakeholders & service ecosystem
- NHS Design Principles: Agree your design principles
- Design the approach, i.e. what you will do at each stage of the project

Stage output: Project brief agreed with team and those who deliver a service

Discover

- Conduct desk research to summarise what you already know
- User research through interviews, focus groups, workshops or shadowing
- Map the existing service journey, highlighting where problems occur
- Identify any constraints to what the future service can do
- Identify accessibility and inclusion needs

Stage output: Summarise and share insights about service user needs

Define

- Define the key problems to solve
- Draw up existing service blueprint
- Sketch out initial view of ideal future user journey
- Identify any metrics that can measure impact of the new service

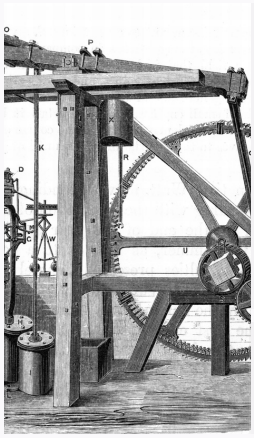
Stage output: Agreed set of clear problems to be solved

Methodology

Ideate

- Do collaborative ideation workshops with users and staff
- Identify the most promising ideas that require testing
- Identify ideas for addressing accessibility and inclusion needs

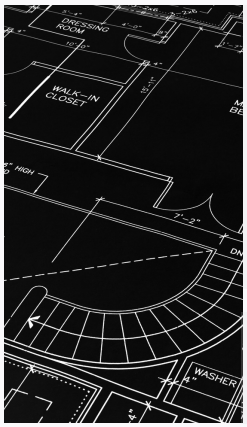
Stage output: Set of ideas that solve the key problems



Prototype & Test

- Create digital or physical prototypes to test ideas with users
- Run user testing sessions
- Update the prototypes for user feedback and test again
- Stop once you are satisfied you have a solution that works

Stage output: A set of solutions that can address the users most important problems with the service.



Embed

- Draw up final user journey
- Design front-end, back-end and support processes
- Design the future service blueprint
- Identify benefits and any costs

Stage output: Handover documentation which will allow the team who will design the future service to understand what needs to be done.

*The full slide deck from the PA presentation is available here.

Key Questions on Human-Centred Service Design

This section documents some of the most relevant and interesting comments (C) and questions (Q) that were posed during the workshop as well as any feedback/answers (A) they received.

Q How do we address invisible 'backwards arrows' in the process, e.g. if something does not work out as planned?

A Plan in time at the very beginning of the project to be able to address this if need be. In this context, it is important to note that HCD is meant to create a whole 'journey', not just the user experience stage of the service, so be sure to take this into consideration!

Q At the planning stage, how do we look back at the root causes (of mental health, for example)? How do we make space to look back onto the root causes? How can we look forward and backward at the same time?

A Practicality/feasibility testing theories (using the scientific method) are meant to address the issue.

Q How do we address the intersection of multiple issues that cause a particular outcome - how can we make space for that at the testing stage?

A In order to avoid paralysis during this stage, try not to get stuck addressing the problem; define which area to look into (first) and why, i.e. prioritise (and be clear why a specific prioritisation is chosen over another).

C (follow-up): The planning stage tends to take time – the scoping (including evidence review) can be time intensive, so you need to prioritise collaboratively!

Q What about everything that happens after the life cycle of the design/planning process? How is everything implemented? Is this being checked up on? How about the 'So what?' afterwards?

A This is why the Beta (testing) phase is so important! Once this phase has been completed to satisfaction, the project moves into the 'live' phase, where it's made 'public' (and adjusted according to feedback) which is followed by the 'retire' phase when everything (ultimately) runs in a self-sustaining manner.

Q How do you handle tension in the ideation stage, e.g. different stakeholders, different ideas of what's feasible/viable?

A There need to be clear evaluation criteria from the beginning, ideally including a designated decider (named early onwards). 'Irreconcilable' differences often come back to 'What does that mean for ME'?, so considering this question from various perspectives as early onwards as possible can reduce the likelihood of conflict later on. Ultimately, the focus should always be returned to the user and their needs as the driving force behind any decisions that are being made! Alternatively, there is also the 'Spike' technique: take something out of the process to address it later so it doesn't disrupt the work flow.

C (follow-up): There ought to be a community consultation before the process starts, i.e. consulting the intended audience/users at the outset before the planning stage even begins!

Q/C

Service owners and product manager - how can this interface/interaction be managed?

If the manager is not attached to the project they are working on (and they are usually generalists who have worked on many different projects, it is much more encouraged than being a specialist), how do we find the right person with the right skills and experience (and influence)?

How do we define the skills the people need?

A

This is why a thorough sign-on stage for team assembly is crucial for deciding who is needed and for what (as well as for task delegation)!

Afternoon Session: Group Exercises

The first of three planned group exercises asked workshop participants (split into three groups) to frame the potential issues around mental health service provision by creating a specific persona and imagining the challenges they might face. To do this fully, it is important to undertake desk and user research. The groups developed the following hypothetical user profiles:

Young male refugee

Senior citizen with carer

New student in area

Exercise 1

Group 1: Refugee (25, male) with PTSD in coastal town

Exercise 1: Define the problems to be solved

Actor: Refugee (25, male) with PTSD in coastal town

What do they do?

Live on allowance, go to housing officer as point of contact, hang around town, unemployed (basic manual skills)

What do they say?

Asks questions (not a lot though)

What do they think?

Distrust towards police (and government services generally)
Does not want help

What do they feel?

Traumatised (night terrors, panic attacks)
Desire to work

Key problems they face using the service today?

- Language barrier
- (Social/societal) Isolation and exclusion
- Unemployment/lack of funds
- Fear/anxiety
- Double trauma (situation/experiences in home country as well as in the UK)
- Lack of understanding of system and how to access it
- Multiple steps towards to mental health support
- Waiting lists/unsupported wait for services
- Lack of respect from contacts
- Gender (men are less likely to seek support)
- Cultural stigma around seeking support
- Services not joined up
- Lack of available clinical support

Group 2: Senior citizen with dementia and their adult child carer

Exercise 1: Define the problems to be solved

Actor: Older person with dementia/*Adult child carer, in work*

What do they do?

Stay inside, travel locally/occasionally go outside (and get lost), forget a lot of short-term information, cook, self-care, watch TV, don't approach health and/or care services

Health/Financial Guardianship

What do they say?

"My family helps me"
"I don't need/want their help"

What do they think?

"I don't want people to think I can't cope"

"Do I have to equip the house with more tech?"
"What assumptions will people make about my role as a carer?"
"There aren't enough resources for carers"
"I'm scared people will accuse me of taking advantage of my parent"

What do they feel?

Lack of confidence, frightened/anxious, dependent, frustrated, depressed, lonely, feel like a burden to family

Overwhelmed

(Both feel uncertain about the care path!)

Key problems they face using the service today?

- transition from independent to supported living (before care home)
- having info repeated often enough,
- fluctuating capacity
- clinical appetite for risk
- access to advocacy
- access to services
- patient not accessing service at the right time
- relationship between carer and patient
- sufficient digital literacy
- finding the right info at the right time
- visibility of process
- carer's mental health

Group 3: University student/starter

Exercise 1: Define the problems to be solved

Actor: Young university student with mental health issues

What do they do?

Moving in and out of area (term time vs vacation time), living away from home, struggling academically (potentially for the first time), struggling with finances/budgeting

What do they say?

"I feel disconnected from my parents due to my mental health problems (they might not understand them)"
"I don't understand the jargon/terminology used by mental health services"

What do they think?

Disproportionate focus on the negatives
Peers are perceived as competitors (rather than a source of support)
University traditions are both a blessing and a curse
Different temporal stress points: start of term, exam period, holidays (such as Valentine's Day)

What do they feel?

Pressure, isolation, loneliness, imposter syndrome, trigger points (pain) followed by diffusion of triggers (periods of resilience)

Key problems they face using the service today?

- Resilience (pressure to be resilient/ overestimation of own resilience capacities)
- Transfer of physical and mental health care
- Students are, by definition, a transition group with fluctuating parental influence
- Lack of understanding around what to do in event of suicidal ideation (safety planning culture?)

Q How do we strike the right balance between utilising the existing body of research/evidence in relation to the problem being addressed and brainstorming what the eventual service users' needs might be?

A The workshop facilitators confirmed this concern and offered the following in response: "True discovery requires quite a lot of pre-work".

Q Where and how might services users be contacted to find out about their needs and opinions, especially those that currently might not want to use the services being designed?

A The workshop facilitators suggested meeting people in their environments (e.g. senior citizens who use the computer at the local library could be approached there) and directly asking them if and how they might want to be involved in a service design process whilst making sure to not overwhelm them or overstep any boundaries. It is important to have an appropriate policy in place for contacting service users. For example, the NIHR has processes in place for contacting mental health service users that incorporate their preferences on how and when they should be contacted for research purposes.

Key common problems across the user journeys that need to be solved in mental health service pathways:

- Interoperability (data and knowledge sharing between organisations)
- Lack of user and carer knowledge of systems
- Social isolation and lack of social support networks
- Inequalities in access across gender, age, ethnicity, disability and citizenship status demand different solutions for different people
- Waiting times
- Financial and staffing constraints

Barriers to implementing HCD and how to overcome them

Moving away from addressing the specific problems for service users, the second exercise discussed operational barriers towards implementing HCD approaches in the service design for mental health. The following barriers were collaboratively identified. Main/overarching problem: lack of available resources in terms of finance, staff and time.

1. Lack of capacity in the workforce (to address a larger question/issue (e.g. obesity), the entire environment (in this case, the 'obesogenic environment') needs to be taken into consideration; this requires a range of different people with specific skill sets)
2. Skills and light methodology /lack of facilitation
3. People not knowing how to use tools/lack of digital literacy
4. Lack of thinking space/away days ("trying to change tyres whilst the car is still driving")
5. Lack of thinking space/away days ("trying to change tyres whilst the car is still driving")
6. Disconnect between islands of expertise/not enough ways to collaborate and bring expertise together and facilitate (see number 1)
7. Lack of commitment from top
8. Financial cycles (i.e. timeliness of funding, funding timelines - government asks for money to be spent in a certain timeframe, regardless of project progress)
9. HCD being allowed to be implemented (from higher-ups)- it's a fairly fundamental process to implement and not just for individual projects
10. Cross-geographical collaboration impossible due to different priorities and funding situations

Solutions

Afterwards, these possible solutions to (some of) the barriers to implementing HCD were suggested:

1. Lack of capacity in the workforce: set up reference group, away day, utilise academic resources, 'protected time', strategic task delegation within a project (ideally the service manager works for the organisation and isn't hired externally so they can keep an overview without necessarily needing the technical know-how to address specific questions/steps in the process)
2. Skills and light methodology/lack of facilitation: sharing learning when staff move on, consultants, resource libraries, specialist training
3. People not knowing how to use tools/lack of digital literacy: create list of free training options/tools, digital capability building (internal), potentially training provided by government
4. Lack of thinking space/away days ("trying to change tyres whilst the car is still driving"): framing events like today around specific real-world problems, best practice/knowledge sharing forums
5. Best practice/learning from others: digital MH playbook, appropriate contractual representation (operational DEI and developmental work), finding realistic problems we CAN influence
6. Disconnect between islands of expertise/not enough ways to collaborate and bring expertise together and facilitate: maintain network contacts
7. Lack of commitment from top: develop a community of practice to identify a HCD sponsor at top, public pressure, submission to ministers, employ more people, working with community organisations

Group Exercise 2: Ideation - finding different ways to solve the problem

We began to ideate some possible solutions for MH services. We hope this stage can be picked up in our second workshop.

FUNDING

Additional funding for new residents in areas to fund local health and housing services.

DATA

Data linking of physical and mental health outcomes, as well as other domain services needs. Information needs to be collected at the first point of contact and shared with all relevant bodies (education, housing, health, etc.).

PEERS

Access to digital peer support and digital therapy tools when people are on waiting lists.

GUIDANCE

Expert guidance on planning the redesign process to open up the time and labour capacity

PATHWAYS

Need for a digital mental health pathways forum or working group to share expertise, solutions, and best practice to assist with service design.

Widespread knowledge of how to escalate problems when relevant and needed, because there often are resources to solve problems.

LOCAL SERVICE

Publicly hosted local service pathways for users and carers to view online.

Interactive Questions

This report is intended to be a working document that we can use as a tool to review what has been covered thus far in the HCD workshop, and planning what we can do next.

To that end, in this section we have created an online poll that for you to share your thoughts and questions. In the links below, please add your ideas as brief answers and this will be a great help as we plan next steps.

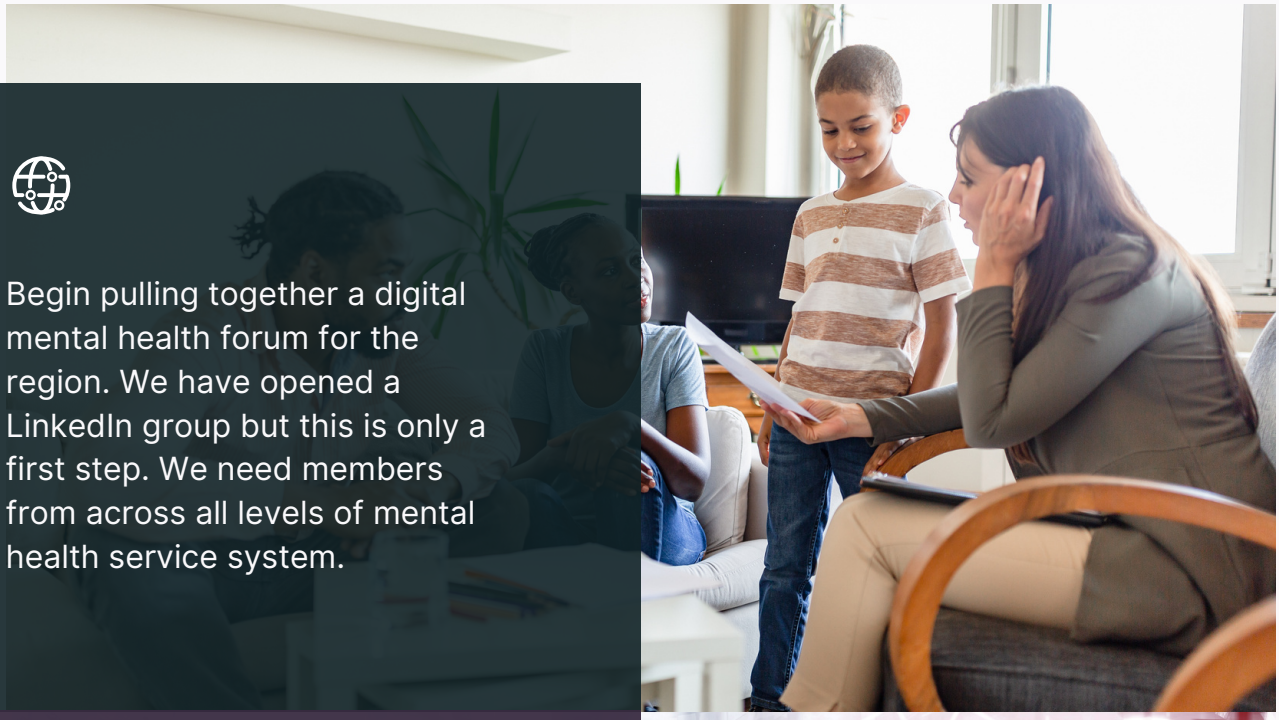
Key Takeaways

- This report summarises the key steps in Human-Centred Service Design to provide a light methodology for implementing it improving and addressing problems in mental health services.
- We have been able to identify a number of barriers to implementing HCD in the mental health context, and offered some solutions to these barriers.
- We have run through the first steps in implementing HCD, identifying a number of problems that different service users may face and beginning to ideate on solutions.
- This workshop report should act as a brief guide for continuing the HCD process.

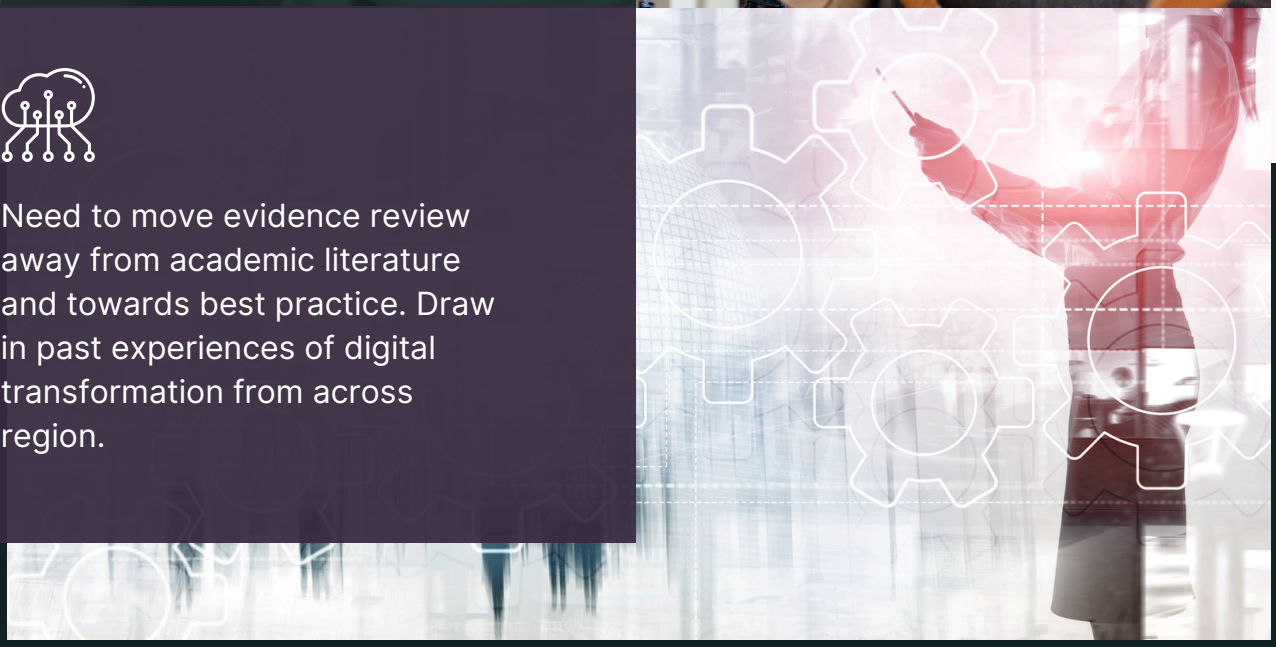
Recommendations

There is a remaining need to dedicate more time to the ideation stage. We have identified a myriad of challenges, prioritising how to meet those challenges and finding the right solutions will be more productive together.

It is vital to include those with lived experience, service users and carers into the service design process. This was raised in the workshop, and is fundamental for co-designing mental health services



Begin pulling together a digital mental health forum for the region. We have opened a LinkedIn group but this is only a first step. We need members from across all levels of mental health service system.



Need to move evidence review away from academic literature and towards best practice. Draw in past experiences of digital transformation from across region.

Recommendations

We want to speak with workshop attendees in one-to-one interviews to get a clearer picture of the user journey pathways. This will some additional planning of an interview schedule that maximises the kind of high quality information we can get from any attendees. We also want to sketch out a logic model and begin the service blueprint, as recommended in the HCD methodology.

Receive feedback from attendees, including reflections on the HCD process and the barriers people would face in trying to implement the strategy.

Contact Information

For further information about the research project and the workshops, please contact: <ARCoffice@cpft.nhs.uk>

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