Improving the scalability of fACT in New Zealand primary care

An engagement led development methodology for a practitioner focused digital tool

With thanks to our supporters:

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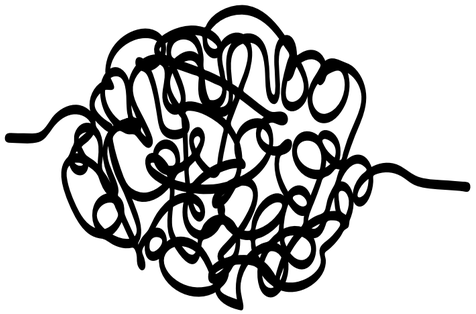
Why do we need to improve service scalability?



Since **2018**, the % of adults in New Zealand suffering from a mental health or addiction issue, has increased from 22% to 28%.[1]

Existing service delivery methods cannot meet growing demand.[2]

We need scalable service delivery. But how?

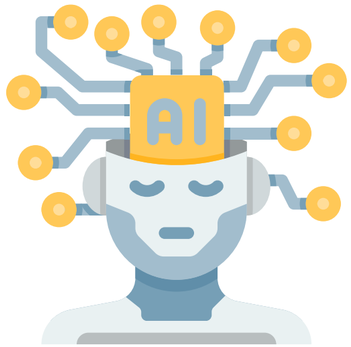
1: Statistics New Zealand. (2021). General Social Survey (GSS). https://datainfoplus.stats.govt.nz/Item/nz.govt.stats/
2: James, S. L., et al. (2018). Global, regional, and national incidence, prevalence, and years lived with disability for 354 diseases and injuries for 195 countries and territories, 1990–2017: A systematic analysis for the Global Burden of Disease Study 2017. The Lancet, 392(10159), 1789–1858. https://doi.org/10.1016/S0140-6736(18)32279-7

Digital tools might be the answer

But how! So many options…

Automated standalone digital solutions?

Trial bias and low real-world engagement.[3]



Gen-AI and machine learning.

Interesting possibilities re: post-session adjunctive support for clients.

Not a silver bullet solution.

What are our most efficient practitioner delivered services?

Could they be improved with adjunctive digital tools?

3: Baumel, A., Edan, S., & Kane, J. M. (n.d.). Is there a trial bias impacting user engagement with unguided e-mental health interventions? A systematic comparison of published reports and real-world usage of the same programs. Translational Behavioral Medicine.

The **Integrated Primary Mental Health and Addictions (IPMHA) model:**
Can we improve scalability through adjunctive digital support?

Single-session primary care behavioural and mental health intervention (based on PCBH/fACT).

Successfully implemented into New Zealand primary care.
Improved service access and equity.

It's going great.

But practitioners have reported problems with service delivery.[4]

Could model scalability be improved with an adjunctive digital tool designed to support practitioners?

4: Appleton-Dyer, D. S. (2018). Fit for the Future: Evaluating Enhanced Integrated Practice Teams. https://synergia.consulting/wp-content/uploads/2018/11/Synergia-ADHB-WDHB-FftF-Evaluation-overview.-FINAL-1-October-2018.pdf

The Elephant in the Room:

Poor Practitioner Engagement

When people *use* digital tools, they can be very helpful [5]

- Improved model fidelity for practitioners
- Better in-session tools
- Scalable post-session support for clients
- Improved service access for clients

But… they aren't using them!

Practitioner and client uptake is low.[6]

Engagement is often high in controlled trials due to contingencies not present in real-world settings.[3]

So, what is required to build an *engaging* practitioner-focused digital tool to support service-delivery?

3: Baumel, A., Edan, S., & Kane, J. M. (2019). Is there a trial bias impacting user engagement with unguided e-mental health interventions? A systematic comparison of published reports and real-world usage of the same programs. Translational Behavioral Medicine.

5: Wind, T. R., Rijkeboer, M., Andersson, G., & Riper, H. (2020). The COVID-19 pandemic: The 'black swan' for mental health care and a turning point for e-health. Internet Interventions, 20, 100317. https://doi.org/10.1016/j.invent.2020.100317

6: Cavanagh, R., Gerson, S. M., Gleason, A., Mackey, R., & Ciulla, R. (2022). Competencies Needed for Behavioral Health Professionals to Integrate Digital Health Technologies into Clinical Care: A Rapid Review. Journal of Technology in Behavioral Science. https://doi.org/10.1007/s41347-022-00242-w

Overcoming engagement barriers by solving user specific service-delivery problems

Many digital tools for mental-health support add value, but don't actually ***solve problems for the user***.[6]

Real world engagement with digital tools comes from *solving existing user problems*.

Make the software an integral part of the service-delivery context, not just an addition to it.[7]

Build a ***painkiller***, not a ***vitamin***.

6: Cavanagh, R., Gerson, S. M., Gleason, A., Mackey, R., & Ciulla, R. (2022). Competencies Needed for Behavioral Health Professionals to Integrate Digital Health Technologies into Clinical Care: A Rapid Review. Journal of Technology in Behavioral Science. https://doi.org/10.1007/s41347-022-00242-w

7: Mohr, D. C., Weingardt, K. R., Reddy, M., & Schueller, S. M. (2017). Three Problems With Current Digital Mental Health Research. . . And Three Things We Can Do About Them. Psychiatric Services, 68(5), 427–429. https://doi.org/10.1176/appi.ps.201600541

So, what kinds of service-delivery problems are fACT practitioners encountering in New Zealand primary care?

Exploratory interviews with fACT practitioners:

Six main themes
Fourteen subthemes

8: Allen, V., Lottridge, D., Merry, S., & Stasiak, K. (2024). Building a digital tool to support focused acceptance and commitment therapy practitioners in New Zealand primary care: A qualitative exploration of user needs to guide software feature development. Journal of Contextual Behavioral Science, 32, 100762.

Theme One: *Session time flexibility*

Brief model works for most clients, but is not suitable for every client

- Session time flexibility is needed for clients with more severe presentations
- Practitioners would like more efficient ways to work with repeat clients
- Model needs to be flexible around varied client demographic in primary care

"The model sits well in 30 minutes if there's no acuity. If I've got someone who's suicidal or anything else; grief, trauma, sexual assault, that kind of thing, it's very hard to contain it to 30 minutes, because it might not be trauma-informed care, and there could be cultural reasons, English as a second language, and it's a bit slower."

"We see SUCH a vast range of presentations, different conditions, different severities. They often have numerous complexities together. It's very case-by-case, or person-by-person what we do."

8: Allen, V., Lottridge, D., Merry, S., & Stasiak, K. (2024). Building a digital tool to support focused acceptance and commitment therapy practitioners in New Zealand primary care: A qualitative exploration of user needs to guide software feature development. Journal of Contextual Behavioral Science, 32, 100762.

Theme Two: *Resources*

Access to culturally appropriate fACT congruent exercises and psychoeducation material

- Practitioners would like a better resource library for in-session exercises
- Lack of resources to support client post-session

“I have shitty handouts, they’re not colour because they’re too expensive to do, to me it looks shitty. Or there’s my handwritten little sheets, which to me look shitty.”

“There isn’t one place for some of the fACT stuff. It’s a big higgledy-piggledy and I think everyone’s doing their own version of it.”

“They all cost money, and some people don’t have money. Not in the practices I was working in, they wouldn’t have money.”

8: Allen, V., Lottridge, D., Merry, S., & Stasiak, K. (2024). Building a digital tool to support focused acceptance and commitment therapy practitioners in New Zealand primary care: A qualitative exploration of user needs to guide software feature development. Journal of Contextual Behavioral Science, 32, 100762.

Theme Three: *Training*

Additional training is needed to use fACT effectively in primary care contexts

- Ongoing support and training are required to maintain model fidelity
- fACT training should be cheap, accessible, and available to all healthcare workers

"You get told how the model works, how to do it, but none of that real-life everyday content that you're using in a session."

"What's really hard to do, is to maintain that fidelity. It would have been really helpful to have refresher courses that we could just attend. Just to get us back on track."

"The goal would be that all of the nurses and GPs would do some sort of training in fACT and feel that they have some competence, and be comfortable to use it."

8: Allen, V., Lottridge, D., Merry, S., & Stasiak, K. (2024). Building a digital tool to support focused acceptance and commitment therapy practitioners in New Zealand primary care: A qualitative exploration of user needs to guide software feature development. Journal of Contextual Behavioral Science, 32, 100762.

Theme Four: *Impact of Brief Sessions on Model Delivery*

Brief session format often leads to desirable parts of the model getting skipped

- Practitioners would like more time to explore values with clients
- Practitioners would like more time to practice experiential exercises with clients
- One of the lost commonly skipped parts of the fACT model is the contextual interview

“I’ve tried to go right into a values card sort, and I found that when I used the cards, it gets buy-in into the whole rest of the session, but it just takes a long time.”

“I’d spend more time on the exercises. At the moment that’s the bit that’s compressed.”

8: Allen, V., Lottridge, D., Merry, S., & Stasiak, K. (2024). Building a digital tool to support focused acceptance and commitment therapy practitioners in New Zealand primary care: A qualitative exploration of user needs to guide software feature development. Journal of Contextual Behavioral Science, 32, 100762.

Theme Five: *Workload and Burnout*

High workloads and poor referral support

- High workloads for HIPs may be causing burnout and high employee turnover
- It is difficult to make timely referrals to secondary services
- It is difficult to make timely referrals to effective crisis care

“Last week I had a really difficult day; someone was acutely suicidal.
You can’t manage that, it took an hour and a half, my whole afternoon was blown out, and it was just uncomfortable. I wanted to just cancel all my appointments and just focus on her. I couldn’t, so… yeah.”

“My friend who was working as a HIP got really unwell.
Twelve people a day, no breaks. She’d go home and she couldn’t speak.”

“They’re leaving because they’re burnt out, because it’s not sustainable.”

8: Allen, V., Lottridge, D., Merry, S., & Stasiak, K. (2024). Building a digital tool to support focused acceptance and commitment therapy practitioners in New Zealand primary care: A qualitative exploration of user needs to guide software feature development. Journal of Contextual Behavioral Science, 32, 100762.

Theme Six: *Post-session support for clients*

Lack of support to follow up with clients post-session

- Practitioners would like to receive feedback and data about client outcomes
- Practitioners would like to be able to send follow-up texts and prompts to facilitate post-session engagement

“Yeah! I’m always stoked when they come back in, “What was our plan? What’d we do? Was it helpful?”. Because they just go off, and I never ever know, really.”

“If we could send out reminders, that would be an amazing thing. If you could set up something that could send out a reminder twice a week asking, “How’s your plan going? How’s your walking going?”.”

8: Allen, V., Lottridge, D., Merry, S., & Stasiak, K. (2024). Building a digital tool to support focused acceptance and commitment therapy practitioners in New Zealand primary care: A qualitative exploration of user needs to guide software feature development. Journal of Contextual Behavioral Science, 32, 100762.

Are fACT practitioners facing service-delivery problems which negatively impact model scalability?

Yes, quite a few!

Could they be solved or mitigated with a practitioner-focused digital tool?

Maybe. We need more data.

Survey Study

Exploring additional service delivery problems, and identifying how and *if* they could be addressed with a digital tool

Data collection: Mixed methods survey

Participants: 58 IPMHA Practitioners working in New Zealand primary care

Results: 19 different problems identified, split up according to the IPMHA service-delivery context in which they occur

Context 1: Problems related to direct model delivery
Context 2: Model implementation problems related to primary care clinic staff and processes
Context 3: Problems related to the overall design and implementation of the IPMHA model

Digital tools are not a silver-bullet solution:
Problems assessed according to feasibility to be solved with a practitioner-focused digital tool with the practitioner as the primary user.

Survey Study

Context 1: Problems directly related to model delivery with clients

1. The brief 30-minute fACT format is appropriate for most but not all clients
2. The standard HIP training program is not comprehensive enough to meet the needs of all primary are clients
3. The fast-paced high-volume caseload can be difficult to manage
4. HIPs receive too many severe and complex mental health referrals
5. Referrals lack variety and are predominantly mental health related
6. HIPs struggle to access culturally appropriate fACT congruent tools and exercises to support model delivery

Can be solved **Can be mitigated** **Cannot be solved**

Suitability to be addressed with a *practitioner-focused* digital tool

Survey Study

Context 2: Model implementation problems related to primary care clinic staff and processes

1. HIPs struggle to integrate their new way of working with that of the existing primary care team
2. Referring physicians do not fully understand the role of the HIP
3. Problems using clinic and PHO software systems (electronic health record)
4. Lack of orientation and support when starting in a new clinic
5. HIPs feel isolated in the role
6. It can be difficult to set up client referral pathways in clinics
7. Lack of consistent workspace availability in clinics
8. Warm handover (immediate in-clinic referral from PCP) does not happen very often

Can be solved **Can be mitigated** **Cannot be solved**

Suitability to be addressed with a *practitioner-focused* digital tool

Survey Study

Context 3: Problems related to the overall design and implementation of the IPMHA model

1. There is a mismatch between employer expectations and the realities of practice
2. Ambiguity about the scope of the HIP role amongst implementation stakeholders and other healthcare services
3. Lack of collaboration amongst stakeholders involved in model implementation
4. Lack of opportunity for collaboration with other IPMHA practitioners
5. Not enough support to engage in ongoing training

Can be solved **Can be mitigated** **Cannot be solved**

Suitability to be addressed with a *practitioner-focused* digital tool

Next step: Feature Ideation

Deciding how a digital tool could be used to solve the identified problems.

How?

Ongoing iterative ideation with HIPs and IPMHA stakeholders.

Interviews and focus groups; creating and refining wireframe prototypes and drawings.

User-centered and co-disciplinary.

End-user knows how feature should work, not the researcher.

What does the software need to do?

Collaborative Feature Ideation

Digitally link client/practitioner for automated data collection, behavior plan notifications, supported self-management, and efficient follow up

In-session tools and exercises for practitioners to use with clients

+

Give client post-session access to tools and exercises via app and website

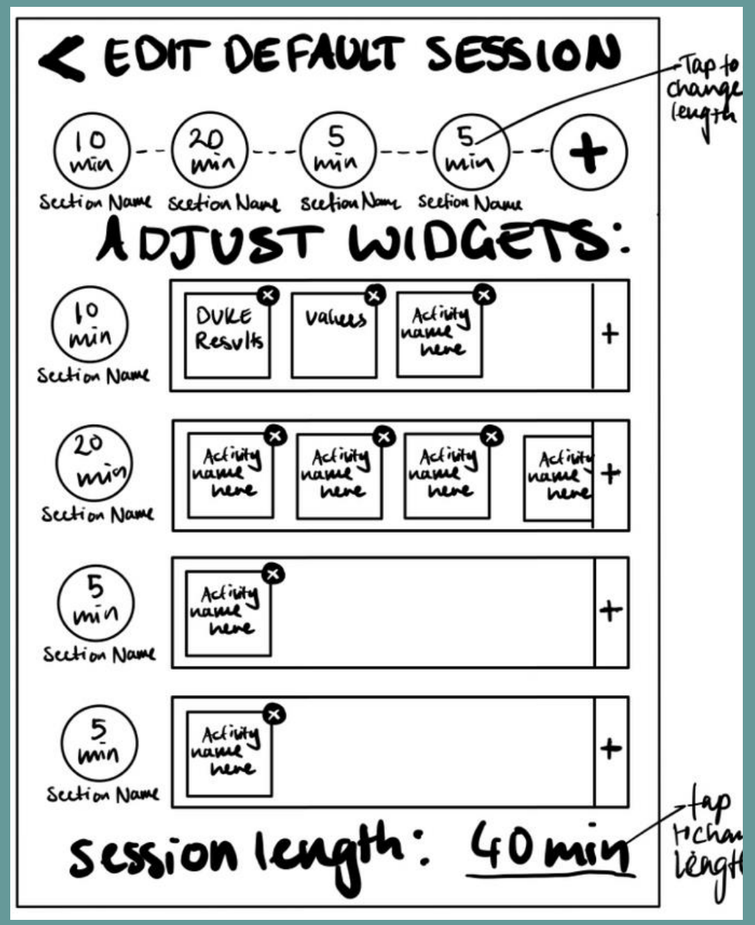
Non-critical tasks delivered digitally to client in the waiting room or at home to free up time in-session

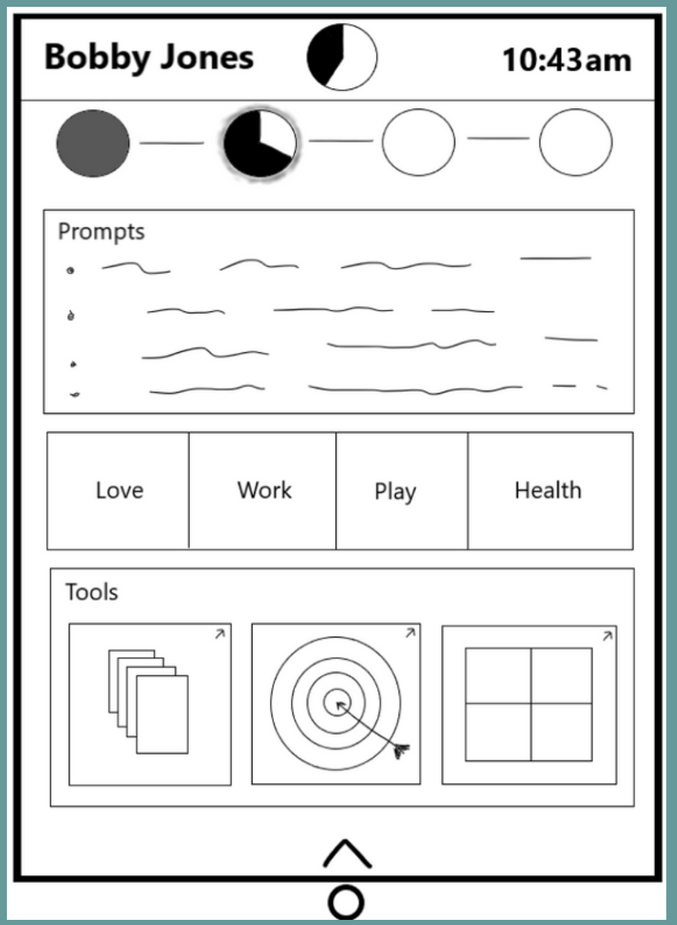
Optimised in-session data collection, and automated integration with clinic and PHO electronic health record

In-session fACT model fidelity support for practitioners, and access to ongoing fACT training modules

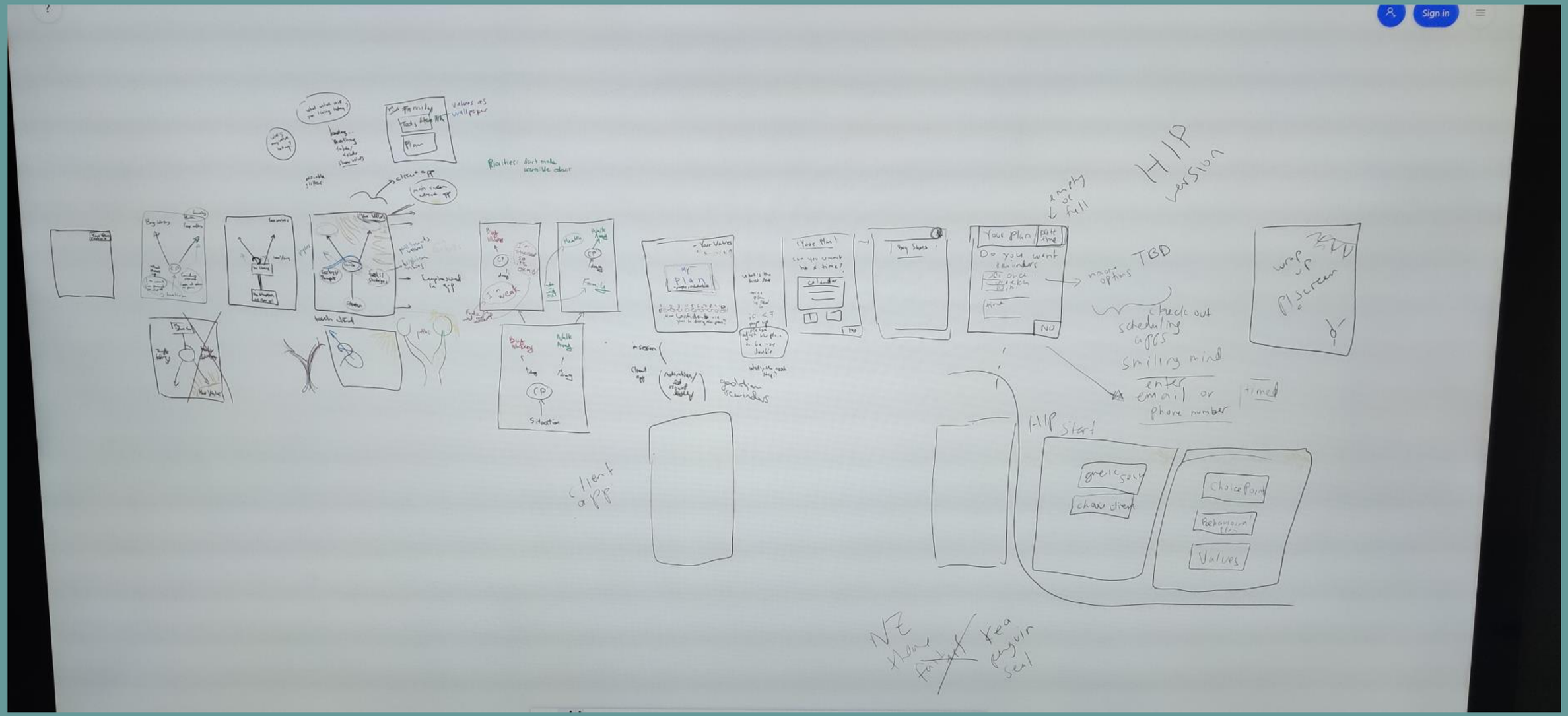
Client post-session self-management support with Gen-AI values elicitation and behaviour plan creation tools

Testing feature prototypes: Guided model fidelity support

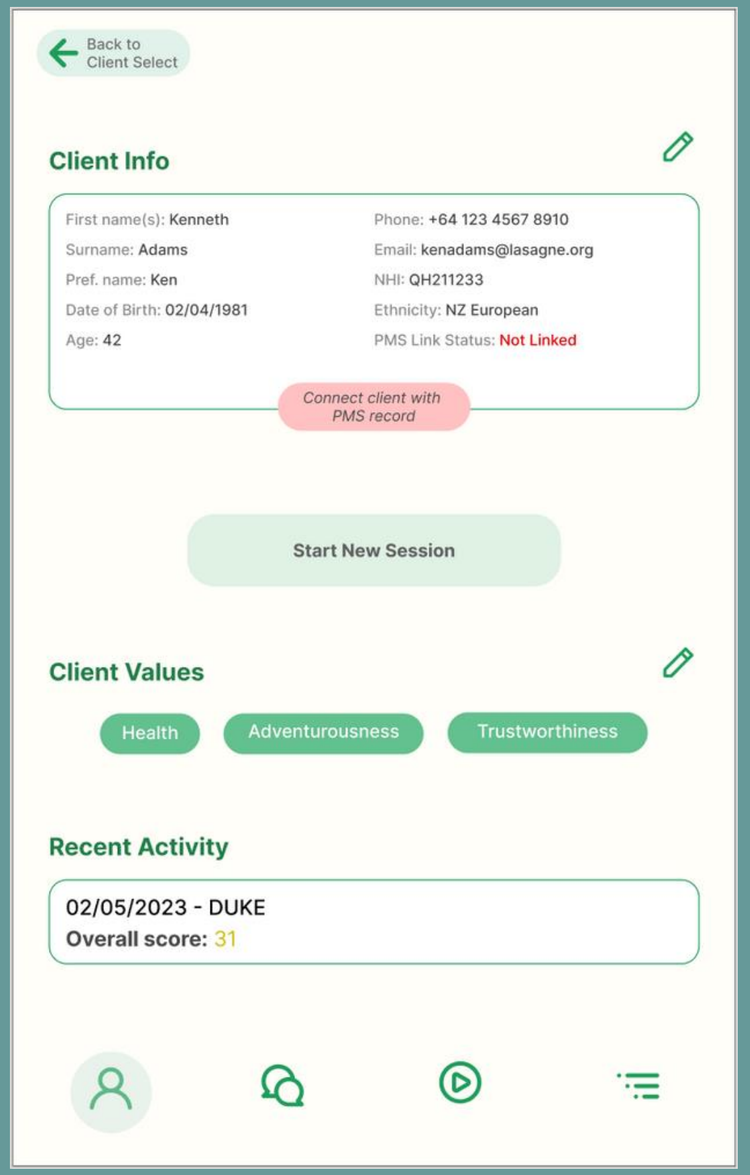


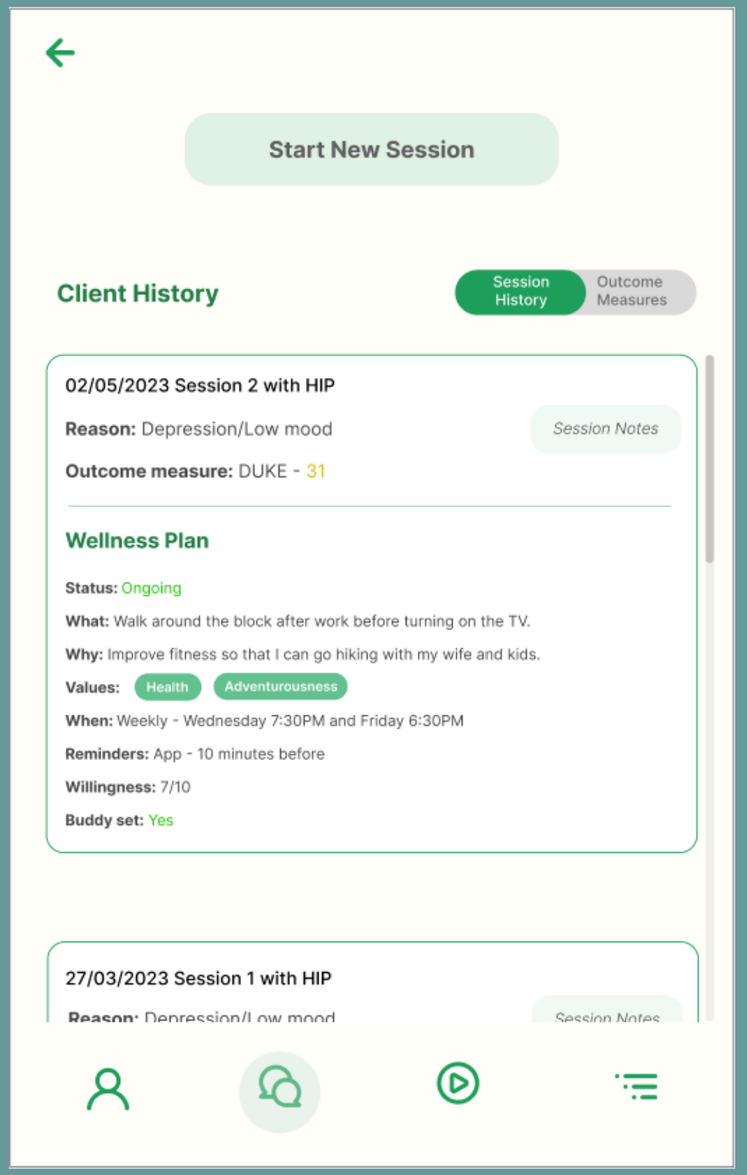


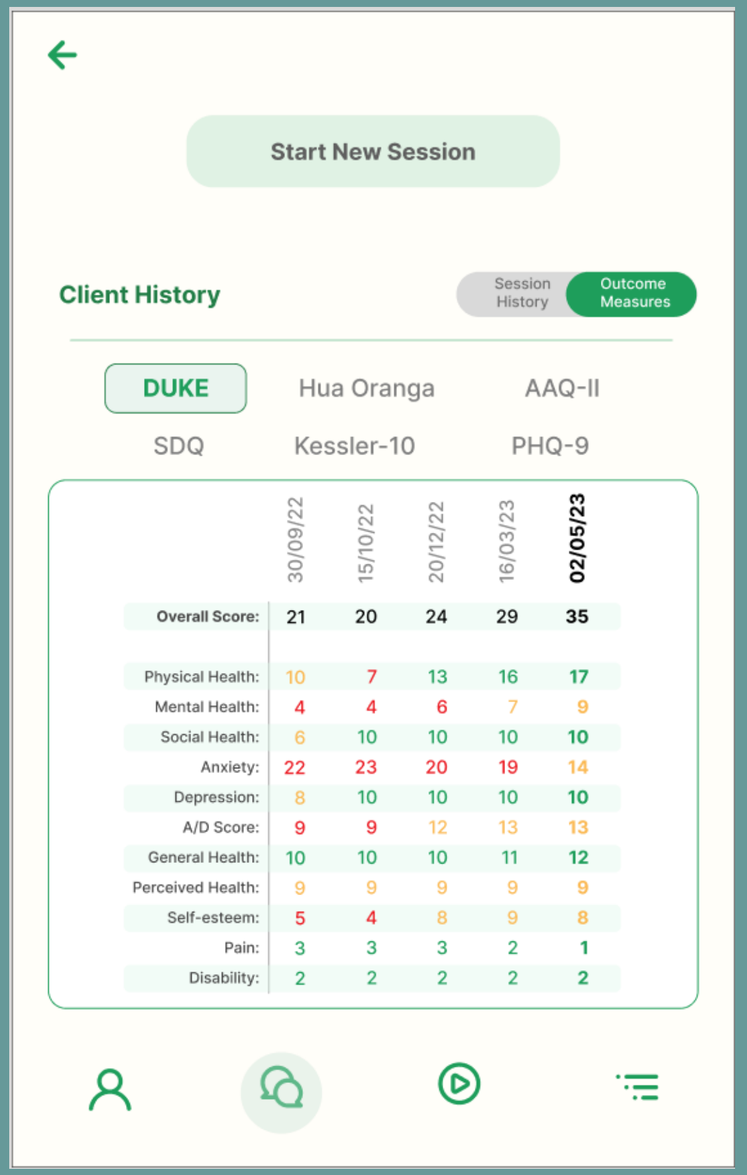
Sometimes there is no digital solution: ‘Optimising’ the Choice Point tool...



Later stage prototypes: Practitioner interface - Client info screens

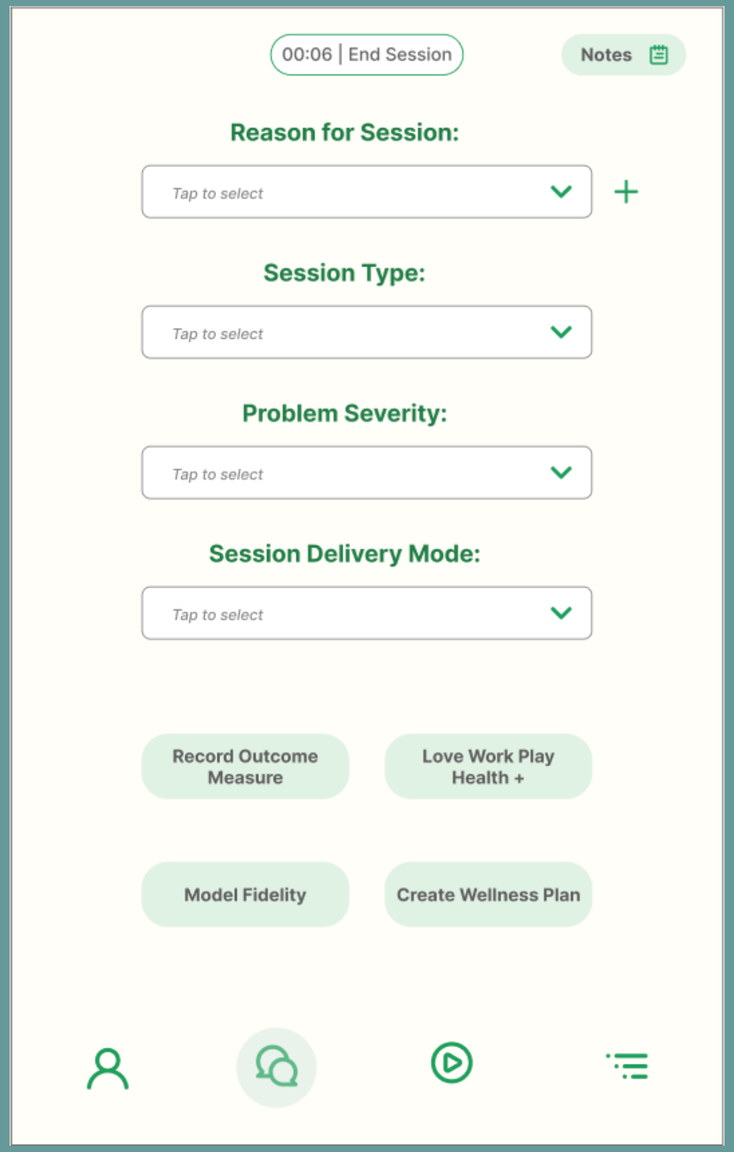


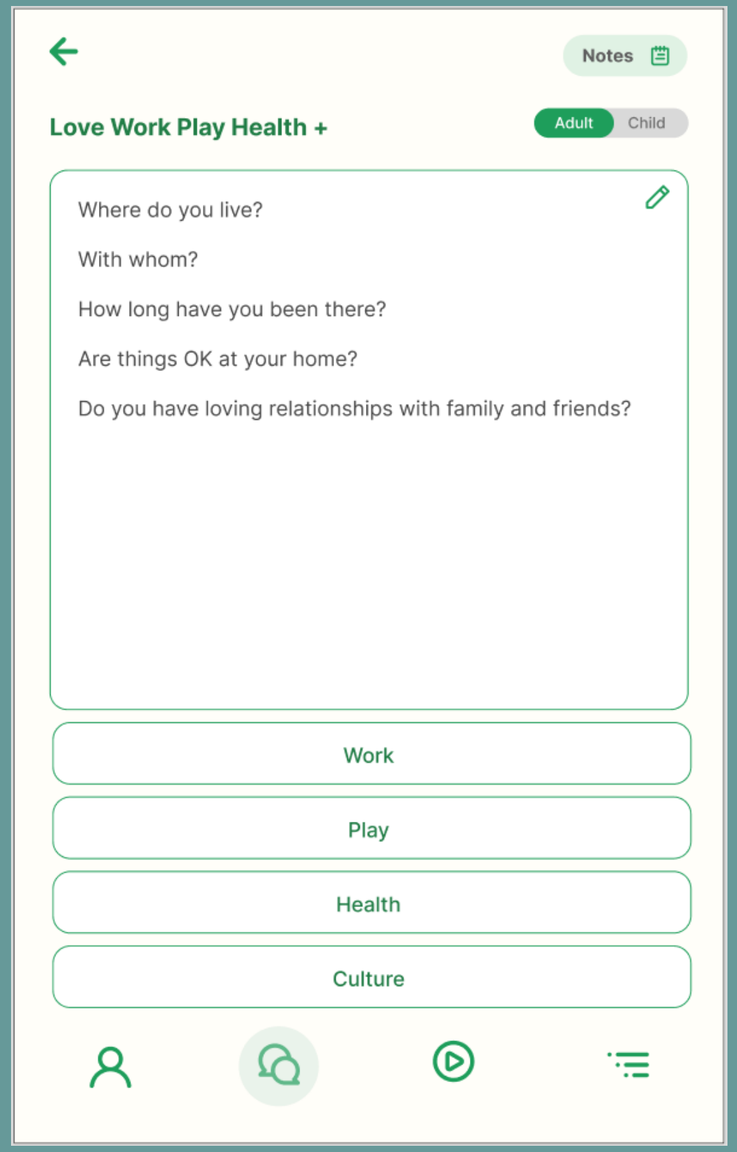




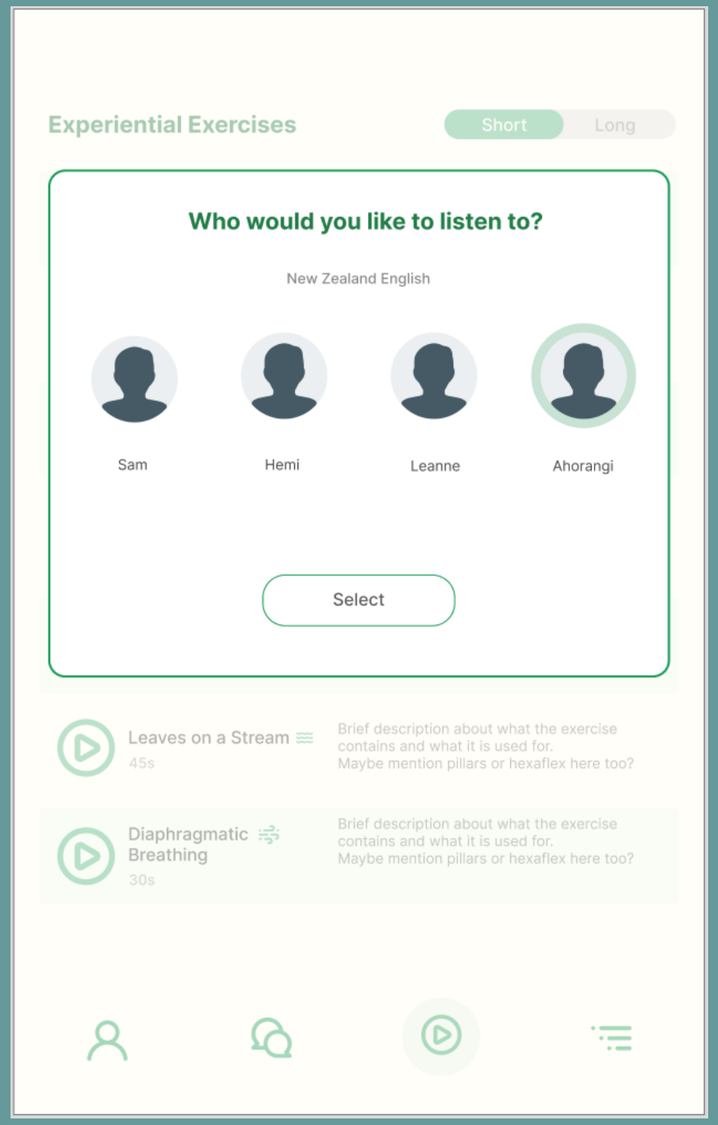
	30/09/22	15/10/22	20/12/22	16/03/23	02/05/23
Overall Score:	21	20	24	29	35
Physical Health:	10	7	13	16	17
Mental Health:	4	4	6	7	9
Social Health:	6	10	10	10	10
Anxiety:	22	23	20	19	14
Depression:	8	10	10	10	10
A/D Score:	9	9	12	13	13
General Health:	10	10	10	11	12
Perceived Health:	9	9	9	9	9
Self-esteem:	5	4	8	9	8
Pain:	3	3	3	2	1
Disability:	2	2	2	2	2

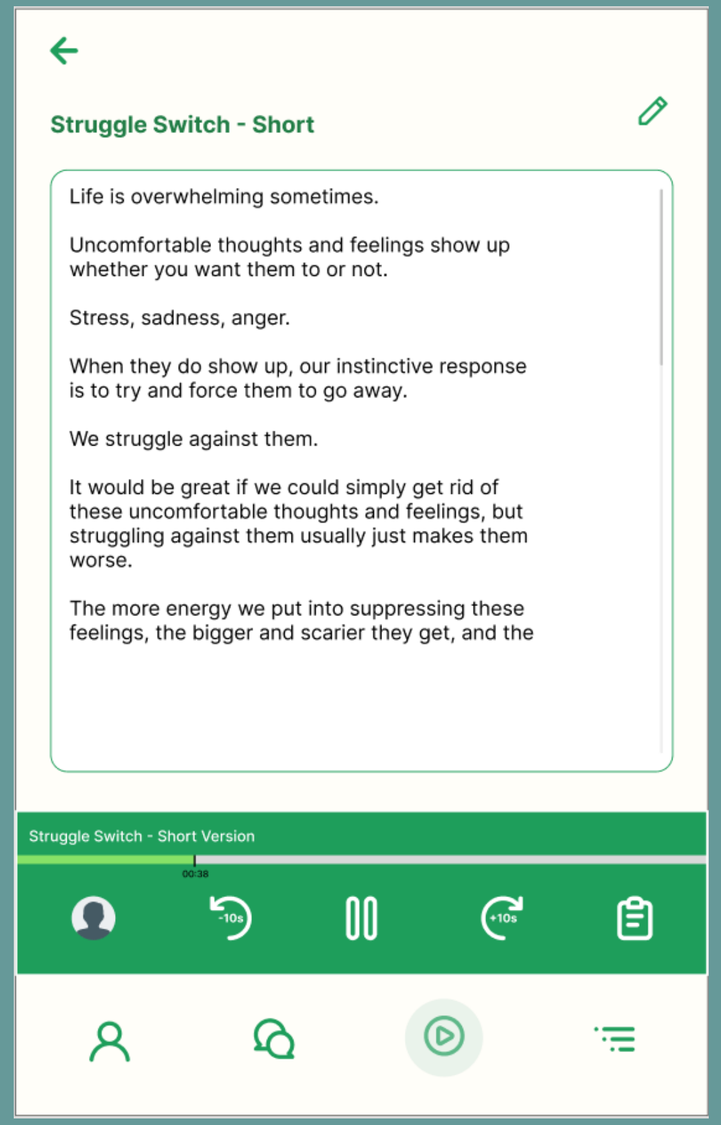
Starting a fACT session + Model fidelity support



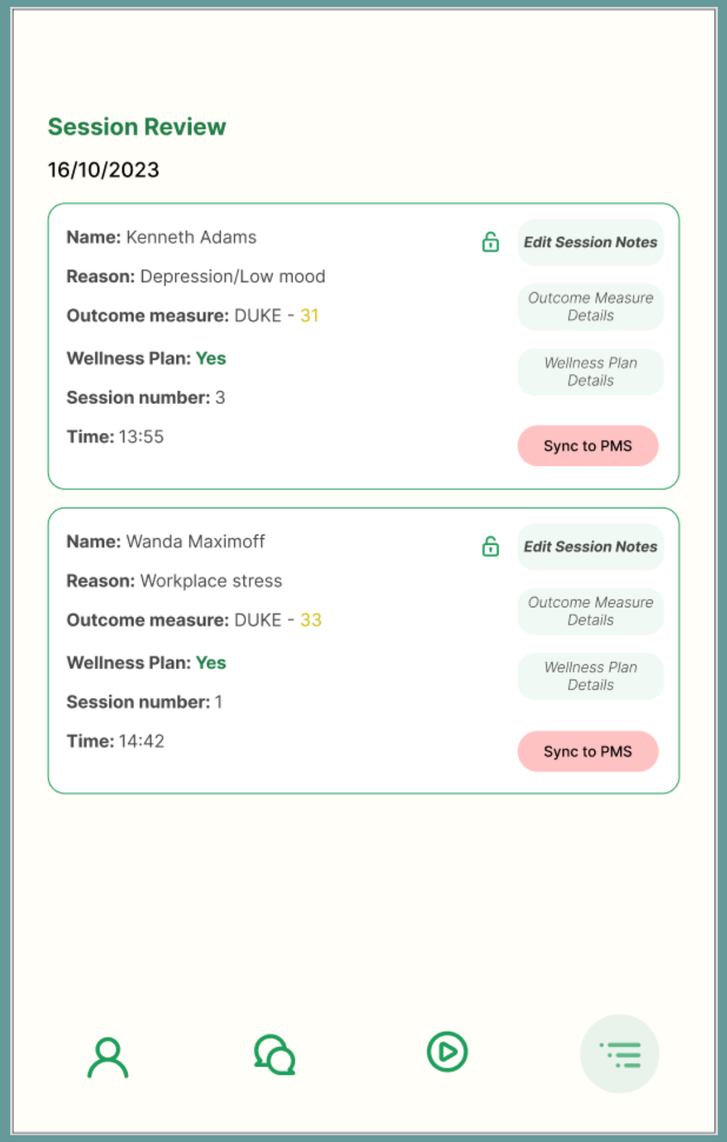


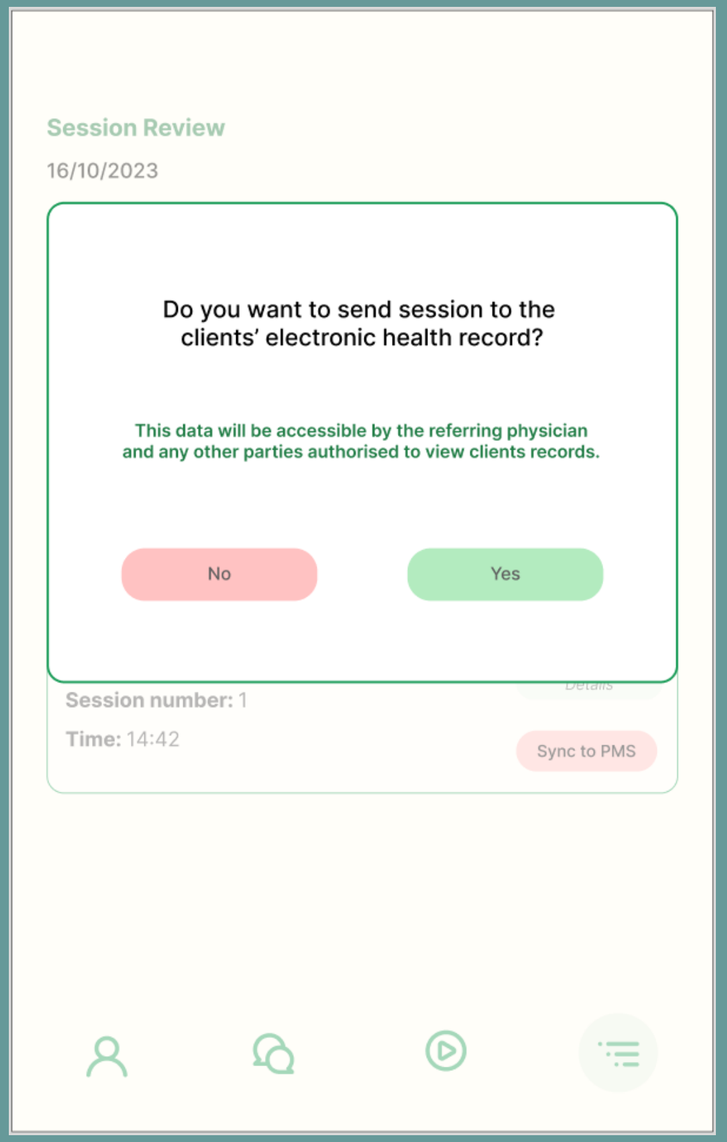
Culturally appropriate model-congruent exercises

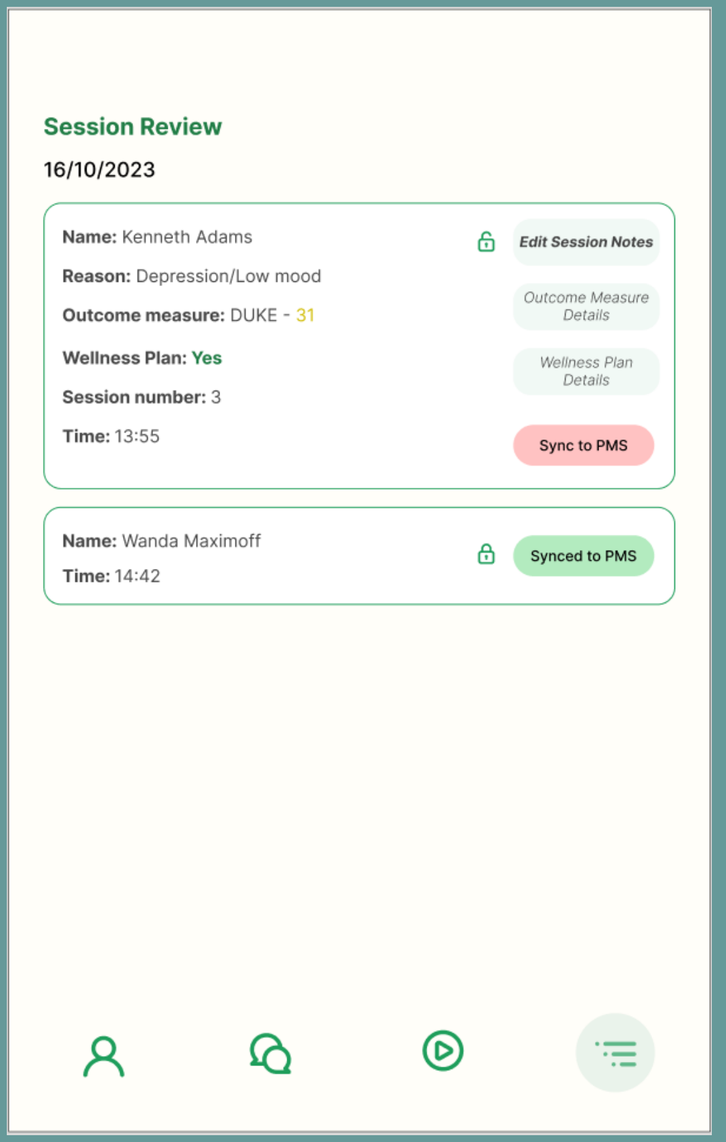




Electronic health record integration







Takeaways

Digital tools are not just a new avenue for delivery a therapy model, they can be used in many different ways to improve service scalability.

To promote engagement, you need to solve real-world user problems.

Context specificity is key in the design and implementation of an effective and engaging digital tool.

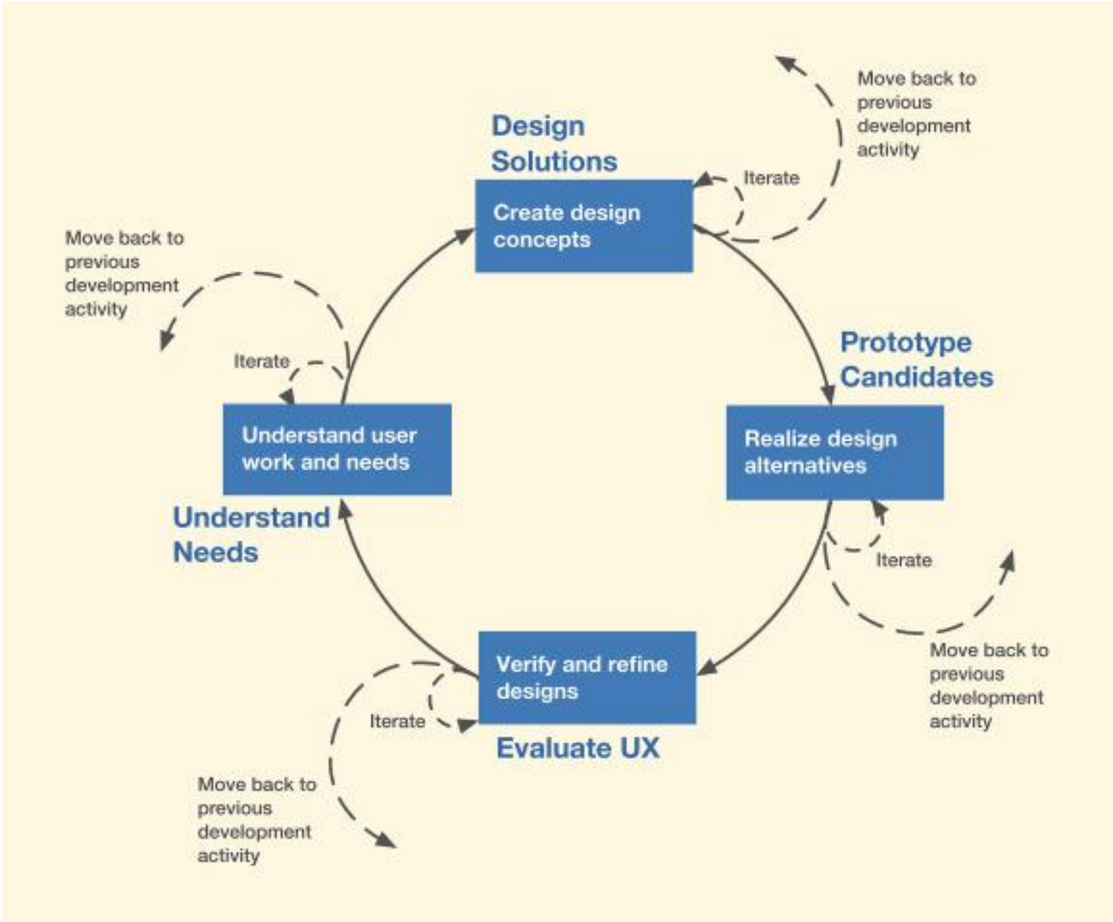
The end-user defines the software features, not the researcher.

vin@lighthousehealth.tech

User-Centered Development Methodology

The UX Wheel

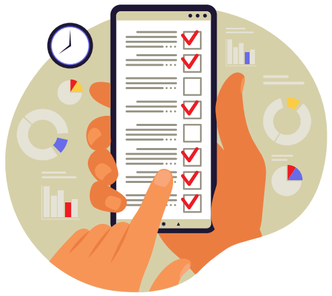
The UX wheel:
A flexible methodology for developing engaging software



10: Hartson, R., & Pyla, P. S. (2012). The UX Book: Process and Guidelines for Ensuring a Quality User Experience. Elsevier.

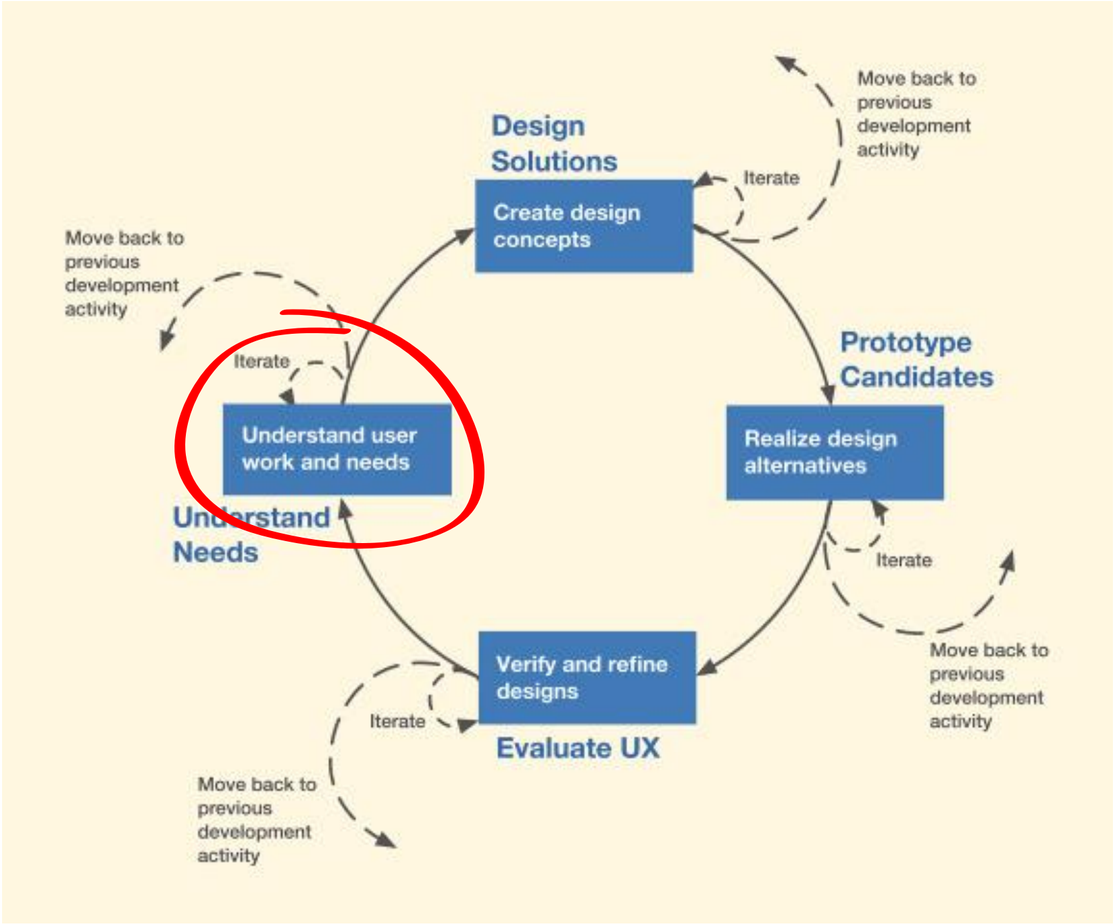
Exploratory Interviews

Thematic analysis of interview data showed six major service delivery problem areas.



Survey Study

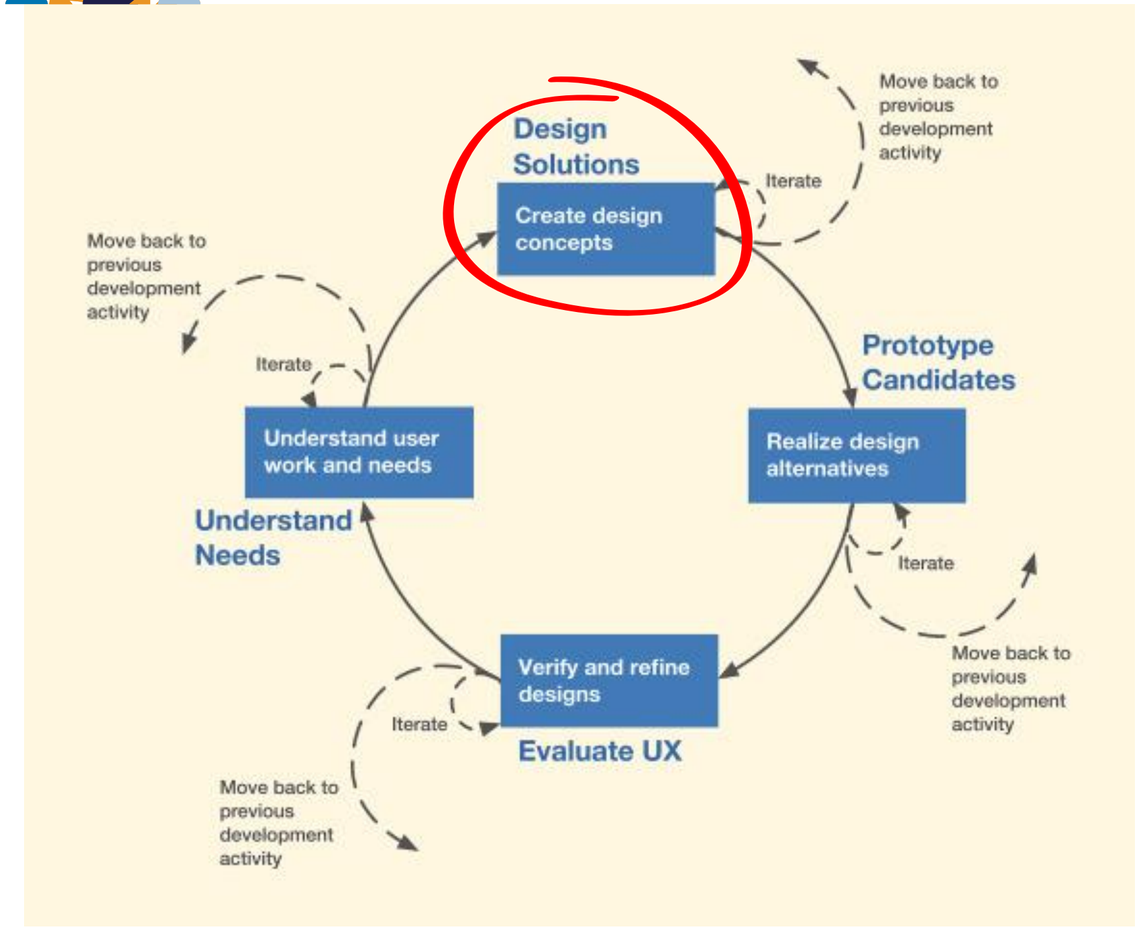
Survey with HIPs to validate interview data and further explore practice context.



10: Hartson, R., & Pyla, P. S. (2012). The UX Book: Process and Guidelines for Ensuring a Quality User Experience. Elsevier.

Iterative Ideation

Working directly with end-users (HIPs) and organisational stakeholders to create and refine a conceptual list of potential software features.



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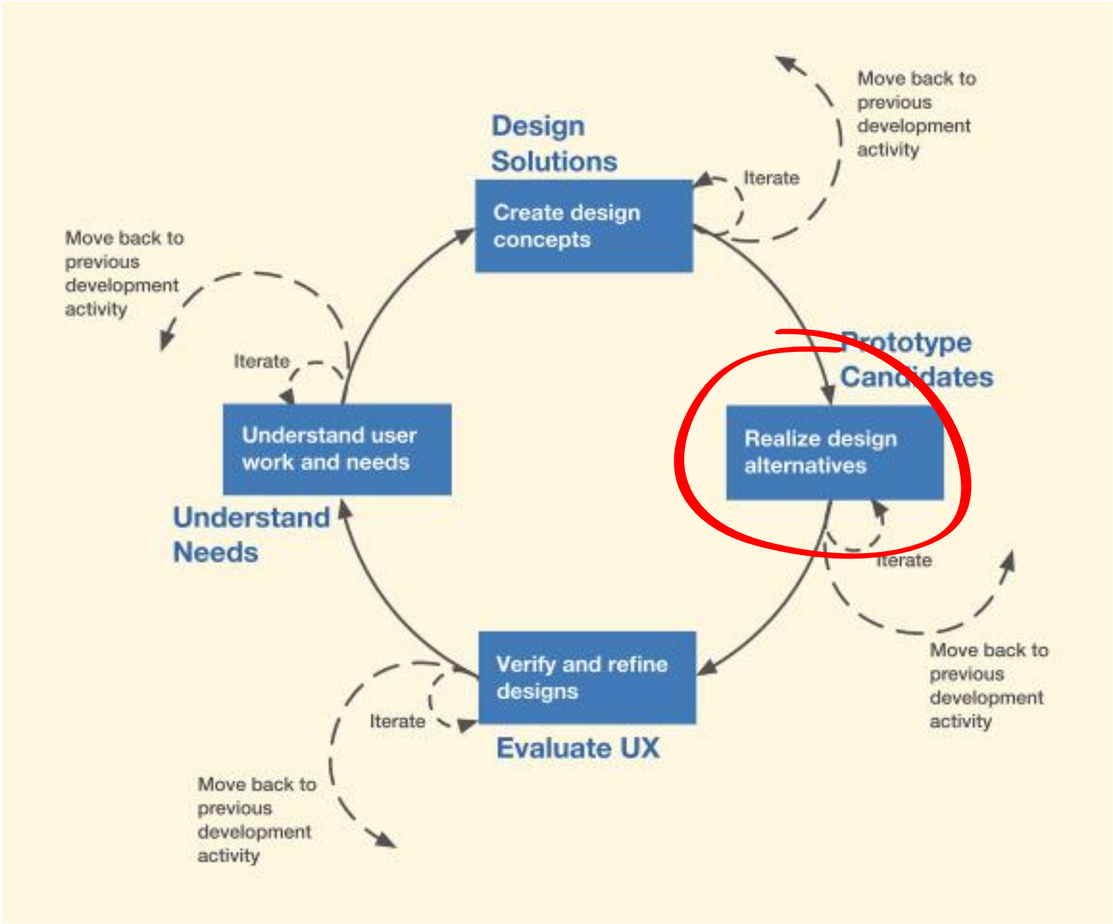
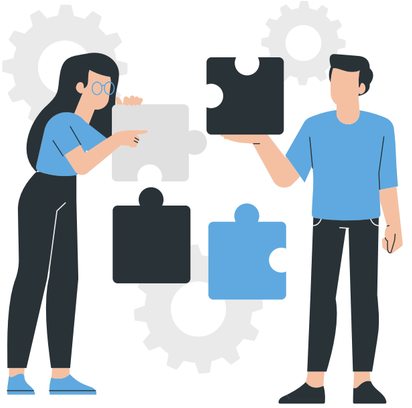
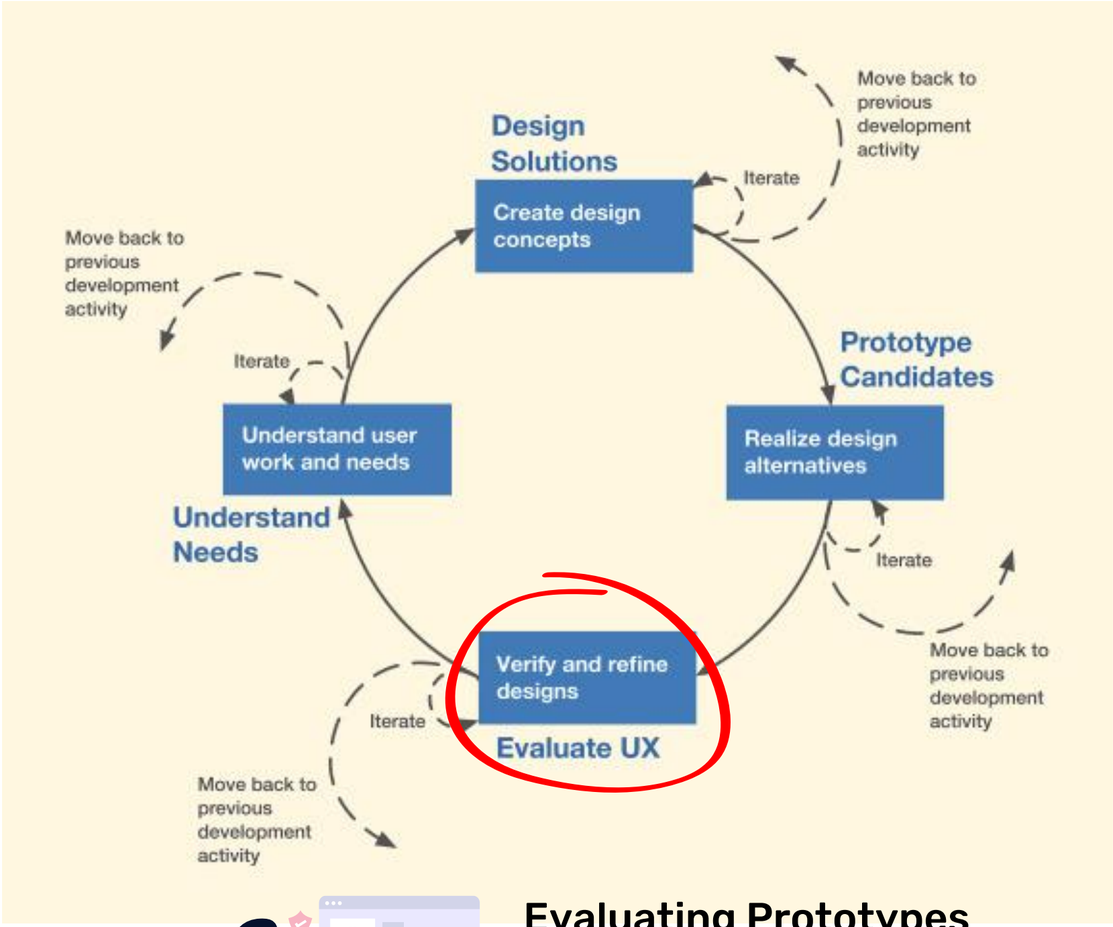




Building Prototypes

Turning our design concepts into prototypes for ongoing iterative testing and development with end-users and other stakeholders.

10: Hartson, R., & Pyla, P. S. (2012). The UX Book: Process and Guidelines for Ensuring a Quality User Experience. Elsevier.

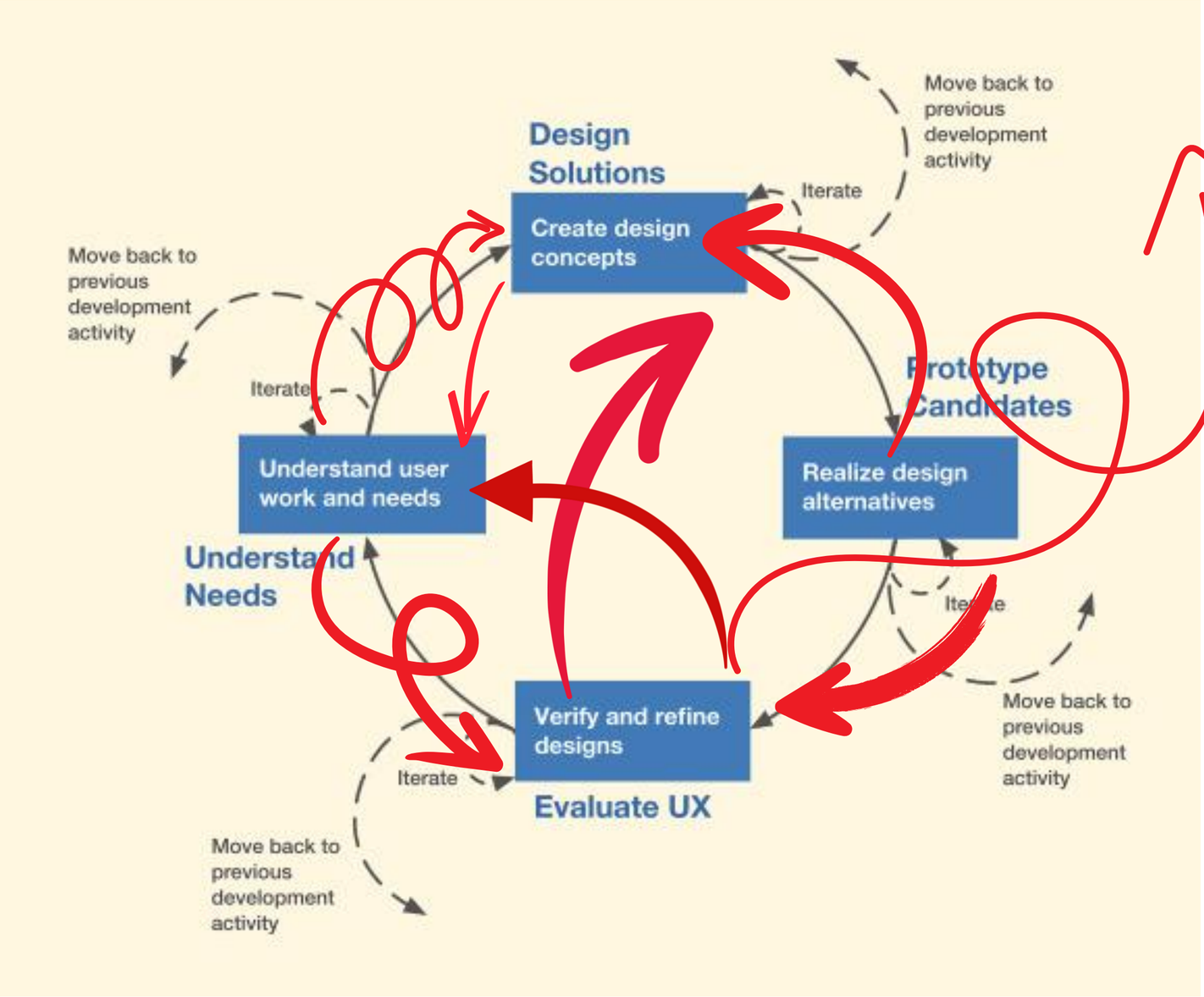


Evaluating Prototypes

Iterative testing and evaluation process to ensure that the software solves HIPs problems and fits their service-delivery context.

10: Hartson, R., & Pyla, P. S. (2012). The UX Book: Process and Guidelines for Ensuring a Quality User Experience. Elsevier.

How it works in practice: A very messy iterative process



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