Co-design research methods with community partners:
benefits, challenges, & outputs

Dr Allison Ezzat PT, PhD

Postdoctoral Fellow, La Trobe Sport and Exercise Medicine Research Centre, Melbourne, Aus

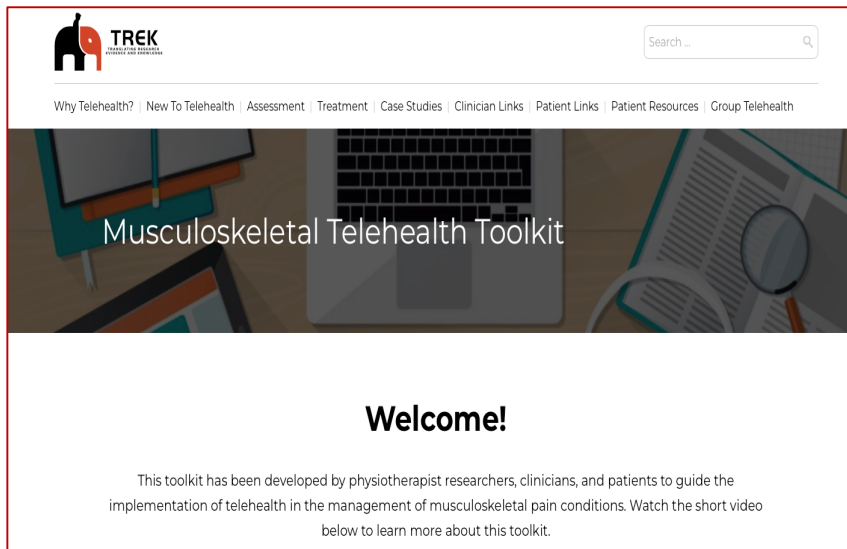Clinical Assistant Professor, Department of Physical Therapy, University of British Columbia, C

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Research Centre

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Disclosures

- The online toolkits being shared today is part of Translating Research Evidence and Knowledge. TREK is a not-for-profit initiative which aims to develop and share freely available online digital resources to support health-related education of clinicians and people managing musculoskeletal pain or other chronic conditions.

- The development of the online toolkit has been funded by the Pat Cosh Grant ($20k), Australian Physiotherapy Association. Also this project has received in-kind support by GLA:D® Australia and team members.

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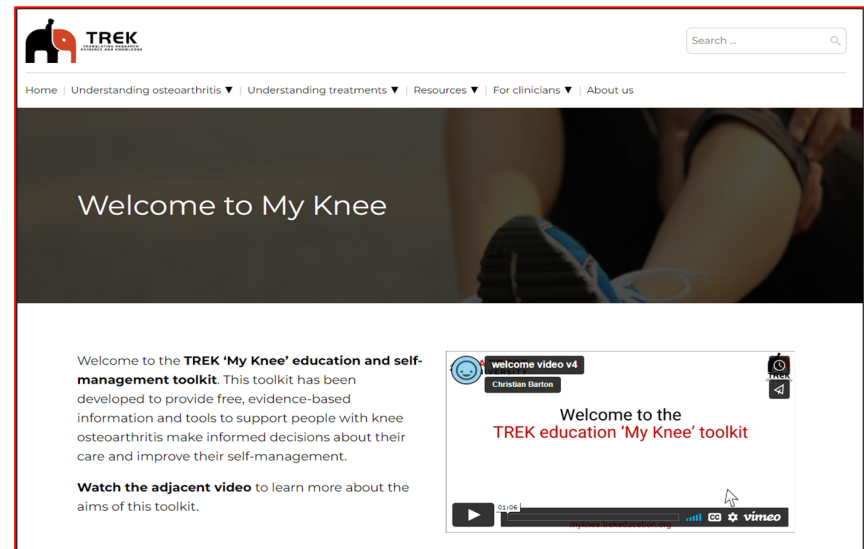UNIVERSITY • AUSTRALIA

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Learning objectives

- Outline the co-design methodology used to develop clinician and patient online toolkits

- Describe the benefits and challenges of co-designing online toolkits

- Appreciate examples of novel methodologies for evaluating co-designed online toolkits

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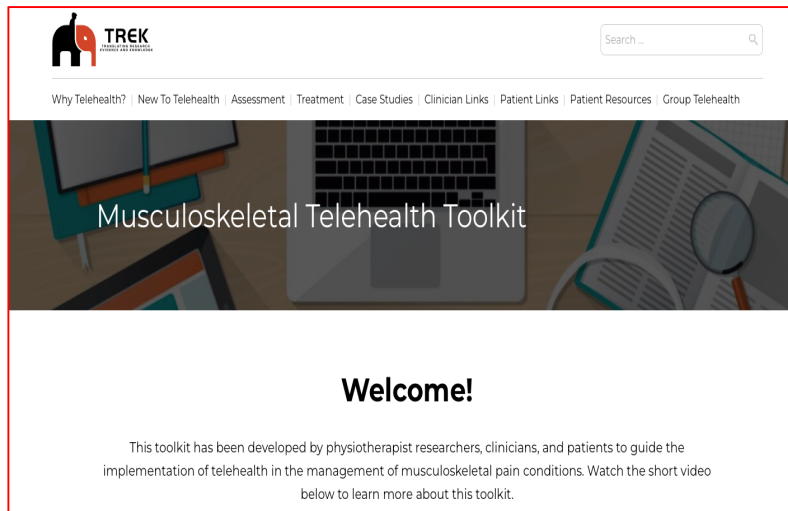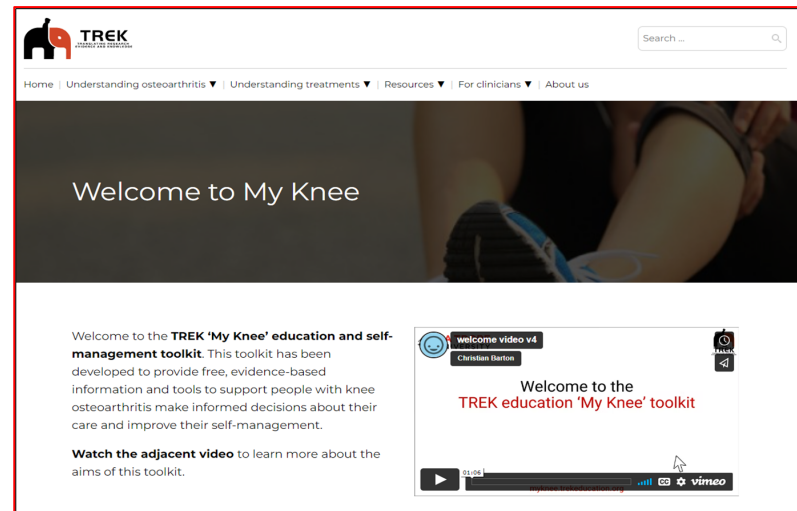UNIVERSITY · AUSTRALIA

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Start at the end…

https://telehealth.trekeducation.org

https://myknee.trekeducation.org

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Start at the ~~end~~ present…

https://telehealth.trekeducation.org

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Co-design is meaningful end-user engagement in research design

Health Research Policy and Systems

REVIEW   **Open Access**

Research co-design in health: a rapid overview of reviews

Check for updates

Peter Slattery*[iD], Alexander K. Saeri and Peter Bragge

1. What approaches to research co-design exist in health settings?

wide variability in application of 'research co-design' – contexts, scope, and theoretical foci

2. What activities does research co-design involve?

Interaction with research end users, included focus groups, interviews, and nominal group technique

3. What do we know about the effectiveness of existing research co-design approaches?

Minimal evaluation has been done, mostly qualitative exploration

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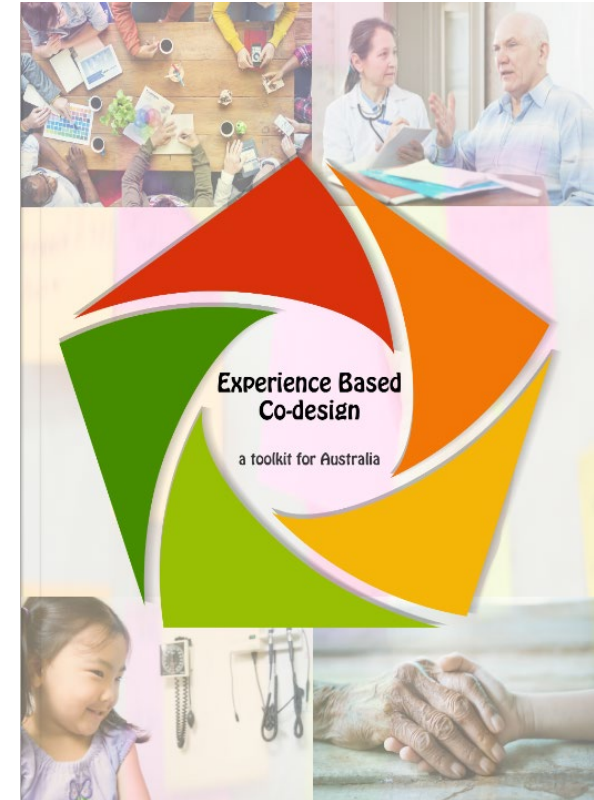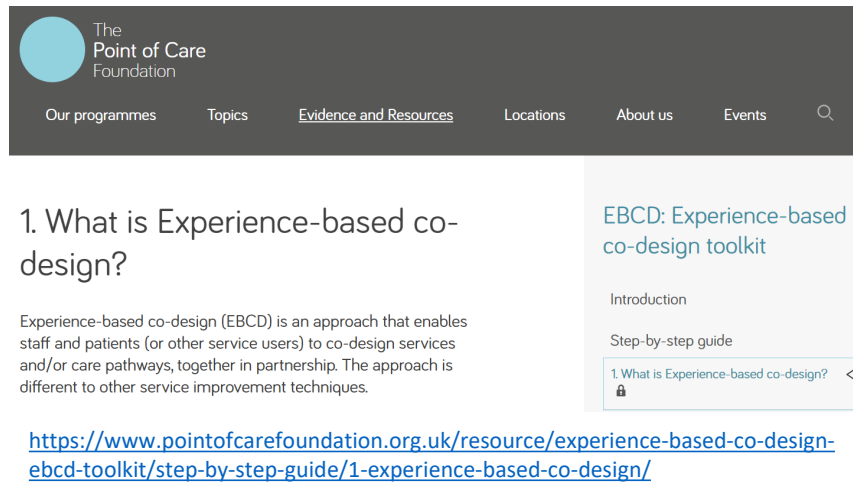
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Why
Co-design?
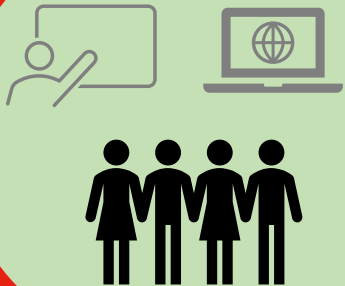
Align priorities

Identify and overcome barriers

Increase satisfaction
and possibly outcomes

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There are many different ~~co~~design approaches

https://www.pointofcarefoundation.org.uk/resource/experience-based-co-design-ebcd-toolkit/step-by-step-guide/1-experience-based-co-design/

https://aci.health.nsw.gov.au/projects/co-designhttps://ahha.asn.au/experience-based-co-design-toolkit
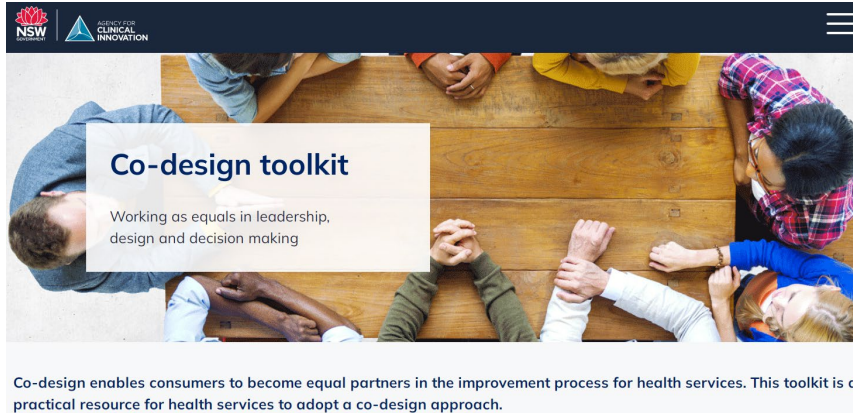
How we used co-design:
# MSK telehealth toolkit

Aim

1. ***Co-develop an accessible, interactive, and evidence-guided toolkit*** to enhance training and support for physiotherapists to deliver care via telehealth for people with musculoskeletal conditions.

2. ***Evaluate the effectiveness of the toolkit*** in improving physiotherapists' knowledge, confidence, and practice changes related to delivering care via telehealth.
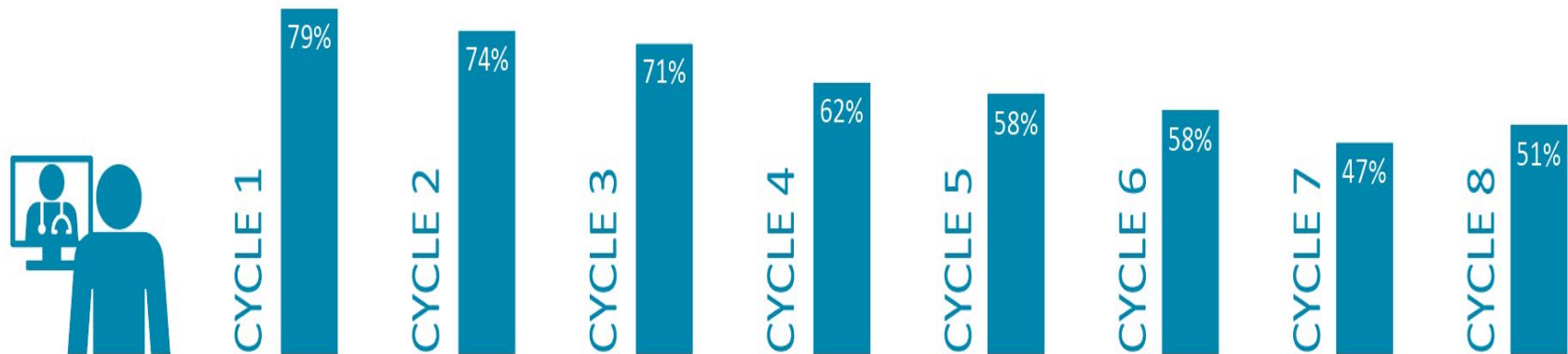
MSK Telehealth Toolkit Development Process
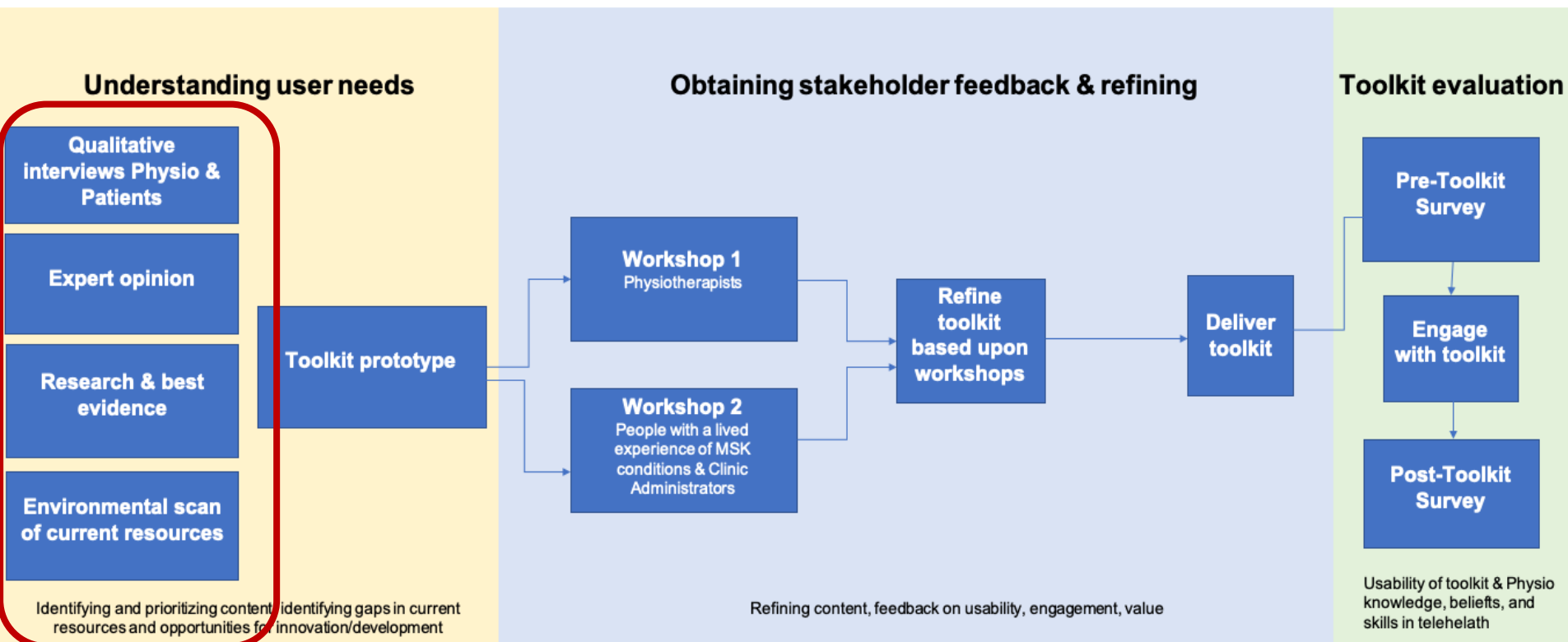
Physiotherapists' experiences with telehealth

Canadian Physiotherapists integrate telehealth into practice during COVID-19

- 8 survey cycles from May to Oct 2020

- Between 1,820 (cycle 1) and 334 (cycle 7) physiotherapists responded from across Canada

- 84% plan to continue offering telehealth in the longer term beyond the pandemic

- 60% are less confident in assessing and treating patients compared to in-person

Ezzat et al Physio Can, 2022

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Physiotherapists' experiences with telehealth

Original article

'It's not hands-on therapy, so it's very limited': Telehealth use and views among allied health clinicians during the coronavirus pandemic☆

P. Malliaras [a,*], M. Merolli [b,c], C.M. Williams [a], J.P. Caneiro [d], T. Haines [e], C. Barton [f,g]

[a] Physiotherapy Department, School of Primary and Allied Health Care, Faculty of Medicine Nursing and Health Science, Monash University, Australia

- 827 clinicians

- 42% believed telehealth was as effective as face-to-face care

- 21% said they have sufficient telehealth training

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Physiotherapists learning needs & preferences

- Physiotherapists lack training and are are less confident in assessing and treating patients by telehealth vs. in-person
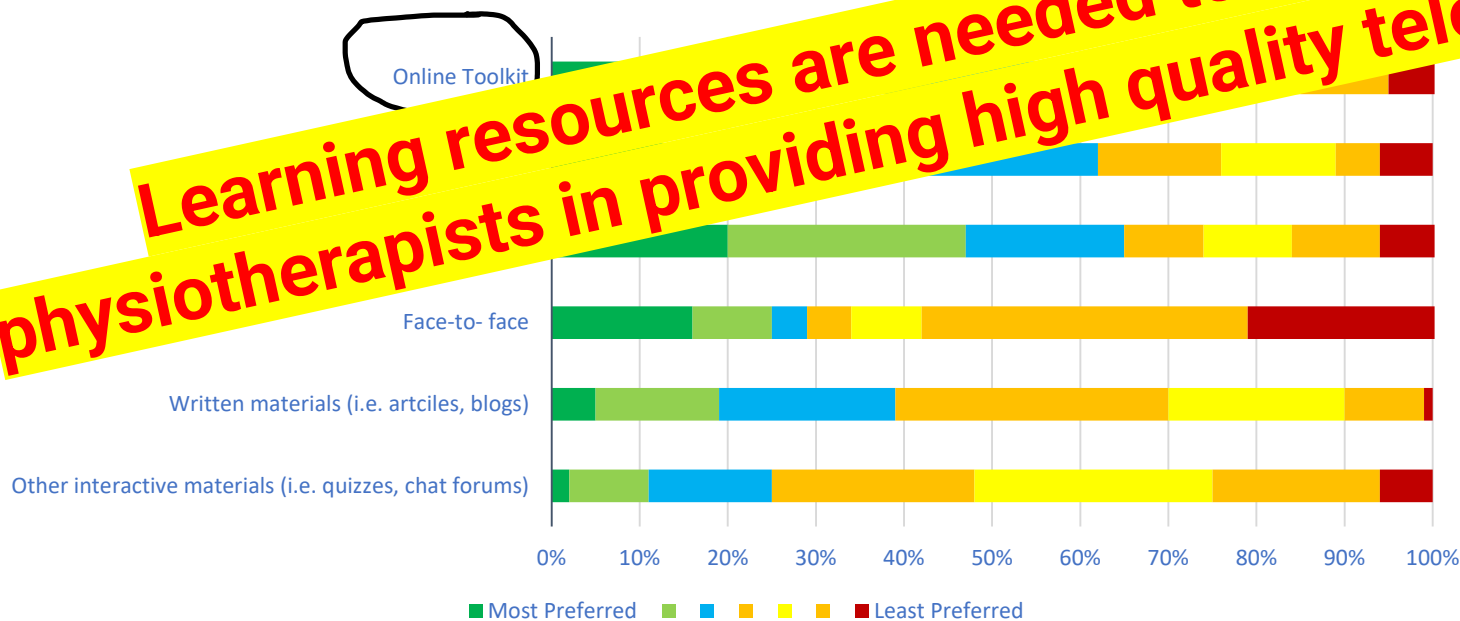
Ezzat et al Physio Can, 2022

MSK Telehealth Toolkit Development Process
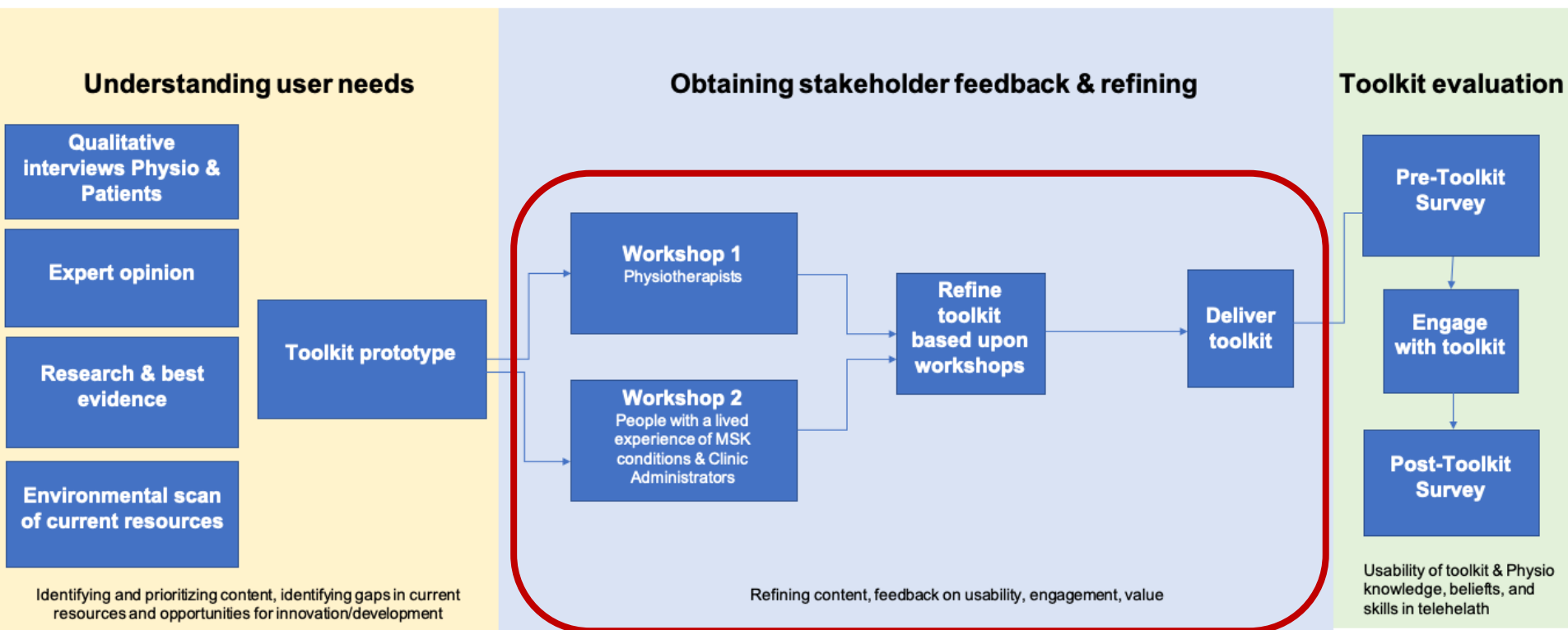
Workshops

4 workshops

1 & 2: Physiotherapist clinicians (n=13)
3 & 4: People with musculoskeletal conditions (n=7) & clinic administrators (n=2)

Sent access in advance with general instructions

2 hour online semi-structured workshop

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Areas of toolkit adaptations "touch points" from co-design workshops

- Navigation

- Content – gaps, likes, & dislikes

- Layout and how information presented

- Balance of written and visual information

- Patient facing resources

- User experiences of telehealth

Introduction to Telehealth toolkit from Christian Barton

Introduction to this toolkit

with Dr. Allison Ezzat

Research Fellow
La Trobe Sport and Exercise Medicine Research Centre

www.telehealth.trekeducation.org

01:40
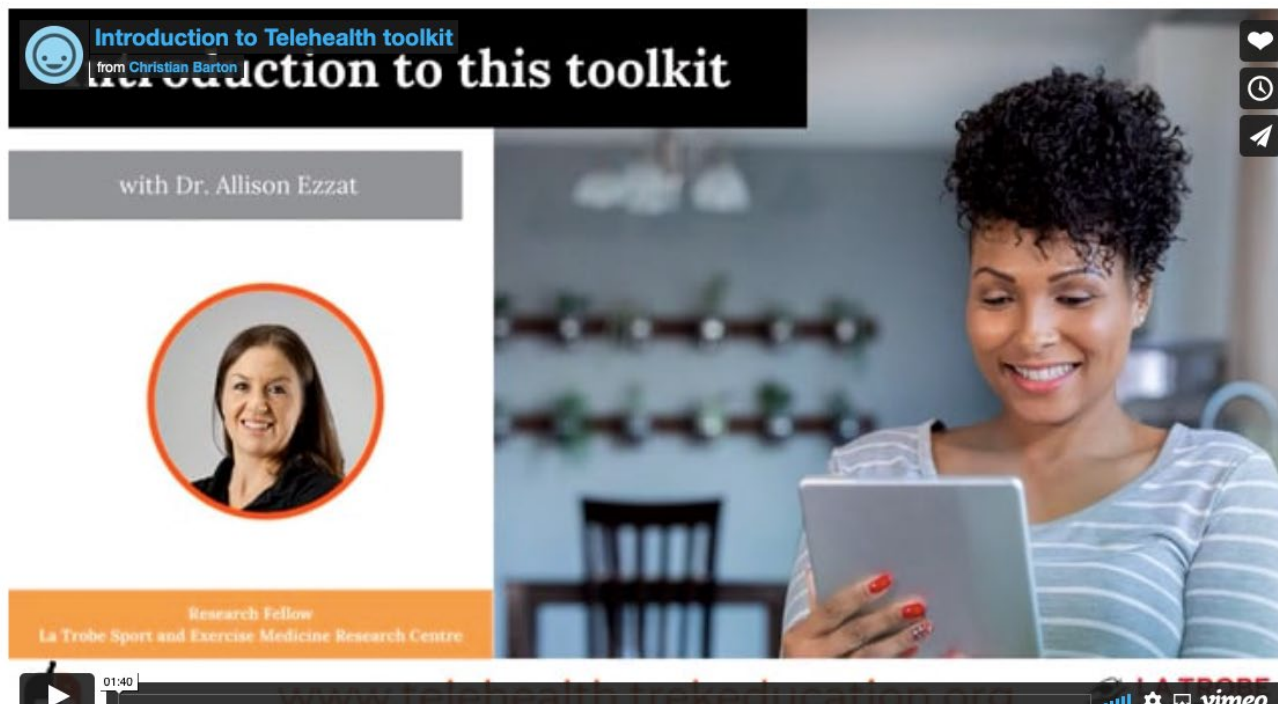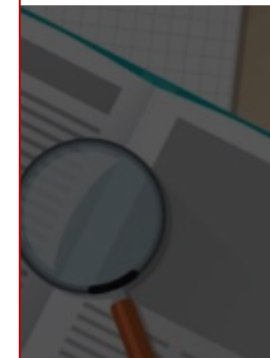
If you are patient, click on the icon below on the left to get started. If you are a clinician, click on the icon below on the right.
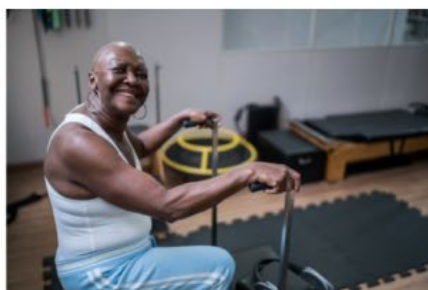
Patients Start Here

Clinicians Start Here

Why Telehealth

Telehealth

Why Telehealth? | New To Telehealth | Assessment | Treatment | Case Studies | Clinician Links | Patient Links | Patient Resources | Group Telehealth

Why Telehealth?

Clinicians Start Here | Evidence | Patient Experiences | Clinician Experience

Guiding Principles for Telehealth

Telehealth: A patient's experience

Telehealth

with Dr. JP Caneiro

Specialist Physiotherapist

20:04

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TRANSLATING RESEARCH EVIDENCE AND KNOWLEDGE

Search ...

Why Telehealth? | New To Telehealth | Assessment | Treatment | Case Studies | Clinician Links | Patient Links | Patient Resources | Group Telehealth

New To Telehealth

Physiotherapist Checklist | **Core Capability Framework** | **Clinic Administrator Checklist** | **Preparing Patients for Telehealth**

Safety | **Legality and Administration** | **Telephone Telehealth Consultations**

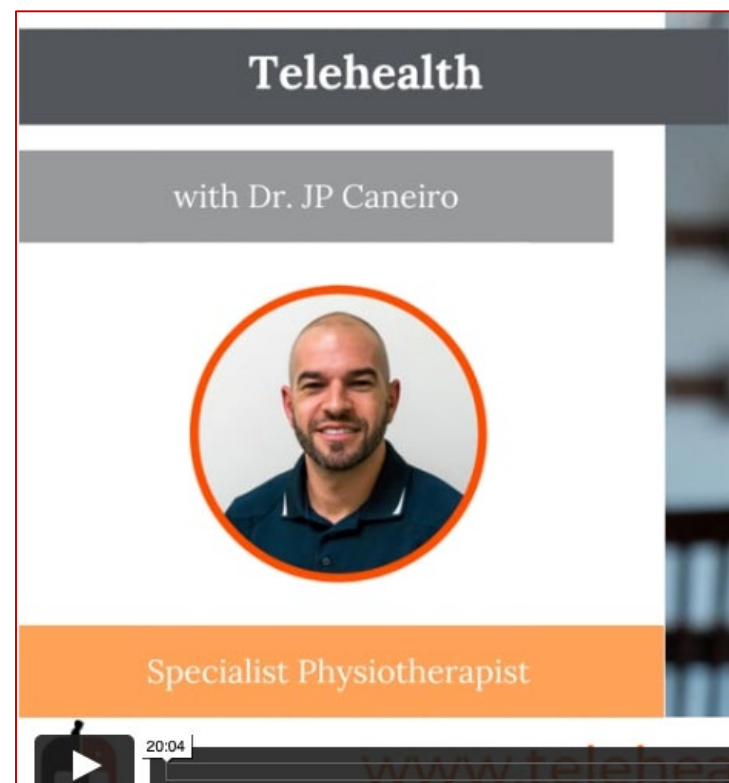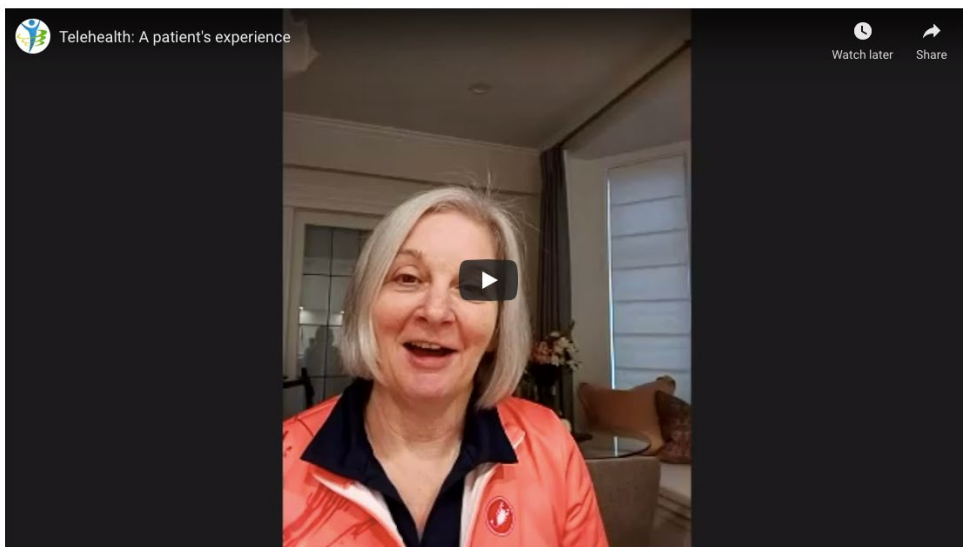Physiotherapy core capability framework to deliver quality care via videoconferencing.

We established an International Delphi panel comprising **130 participants** from **32 countries** to acheive expert consensus

The study was overseen by an **International Steering Group**

A modified 3-round e-Delphi survey was conducted where **participants** anonymously **rated their levels of agreement** for individual capabilities

RESULTS

55%
of the panel were **clinical physiotherapists**, 22% were **researchers**, 15% were **representatives** of physiotherapy associations, 8% were consumers and a private **health insurance representative**

60
specific **capabilities** comprised the **final** core capability **framework** across **7 domains**

Framework Domains
1. Compliance
2. Patient privacy & confidentiality
3. Patient safety
4. Technology skills
5. Telehealth delivery
6. Assessment & Diagnosis
7. Care planing & managment

Centre for Health, Exercise and Sports Medicine
Department of Physiotherapy, The University of Melbourne
Further information: Prof Kim Bennell. k.bennell@unimelb.edu.au
Publication:Davies, L., Hinman, R. S., Russell, T., Lawford, B., Bennell, K., (2021). An international core capability framework for physiotherapists to deliver quality care via videoconferencing: a Delphi study. Journal of Physiotherapy.
[DOI] https://doi.org/10.1016/j.jphys.2021.09.001
@CHESM_unimelb
/CHESMunimelb
/company/chesm

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Below is a short video to help you set up your telehealth appointment
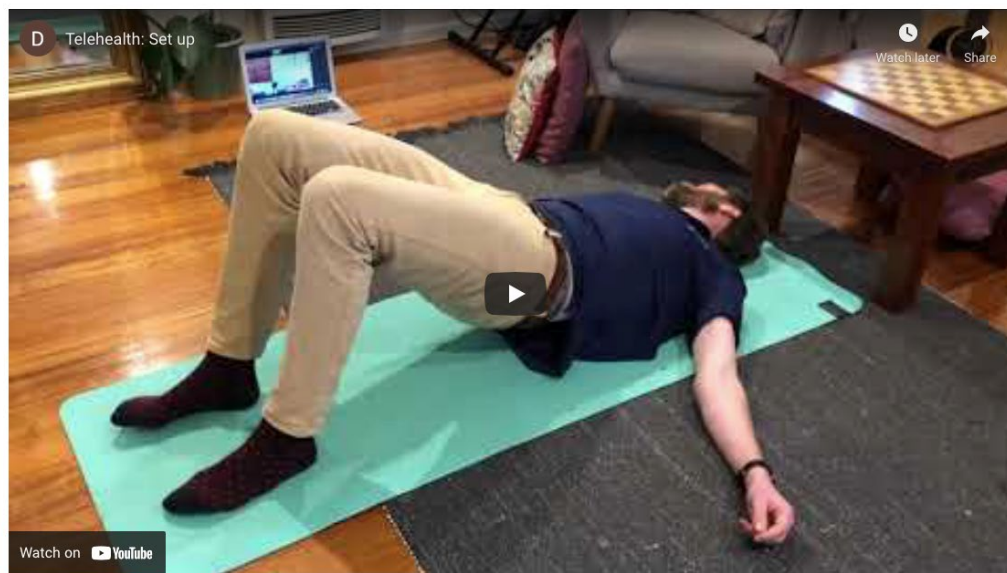
Telehealth: Set up

Watch later   Share

Watch on YouTube

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Why Telehealth? | New To Telehealth | Assessment | Treatment | Case Studies | Clinician Links | Patient Links | Patient Resources | Group Telehealth

Patient Resources

Welcome Patients: Please Start Here

How To Prepare For Telehealth

Setting Up Your Space For Telehealth

Technology Tips

Telehealth FAQ

Patient Anatomy and Landmarking
- Patient Anatomy and Landmarking – Knee
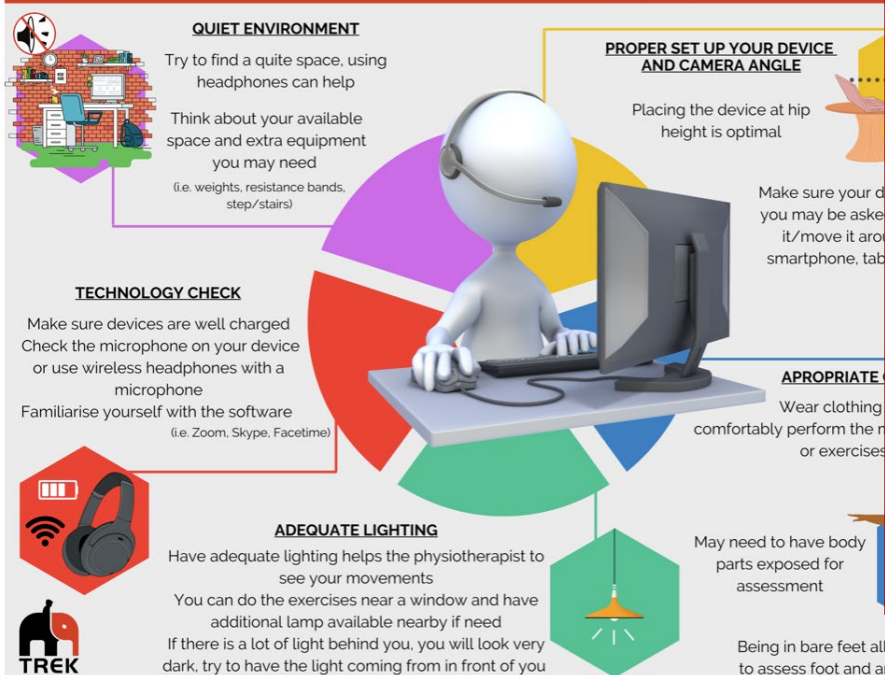- Patient Anatomy and Landmarking – Shoulder

Patient Experiences With Telehealth

Patient Education
- Knee Osteoarthritis: Fact and Fiction
- Knee Osteoarthritis and Exercise
- Knee Osteoarthritis and Weight Management

HOW TO PREPARE FOR A VIRTUAL ASSESSMENT

Designed by: @M_Pazzinatto @DrDanilo_Silva @TREK_group

QUIET ENVIRONMENT
Try to find a quite space, using headphones can help

Think about your available space and extra equipment you may need
(i.e. weights, resistance bands, step/stairs)

PROPER SET UP YOUR DEVICE AND CAMERA ANGLE
Placing the device at hip height is optimal

Make sure your d
you may be aske
it/move it aro
smartphone, tab

TECHNOLOGY CHECK
Make sure devices are well charged
Check the microphone on your device or use wireless headphones with a microphone
Familiarise yourself with the software
(i.e. Zoom, Skype, Facetime)

APROPRIATE
Wear clothing
comfortably perform the
or exercises

ADEQUATE LIGHTING
Have adequate lighting helps the physiotherapist to see your movements
You can do the exercises near a window and have additional lamp available nearby if need
If there is a lot of light behind you, you will look very dark, try to have the light coming from in front of you

May need to have body parts exposed for assessment

Being in bare feet allows the clinician to assess foot and ankle movements

TREK

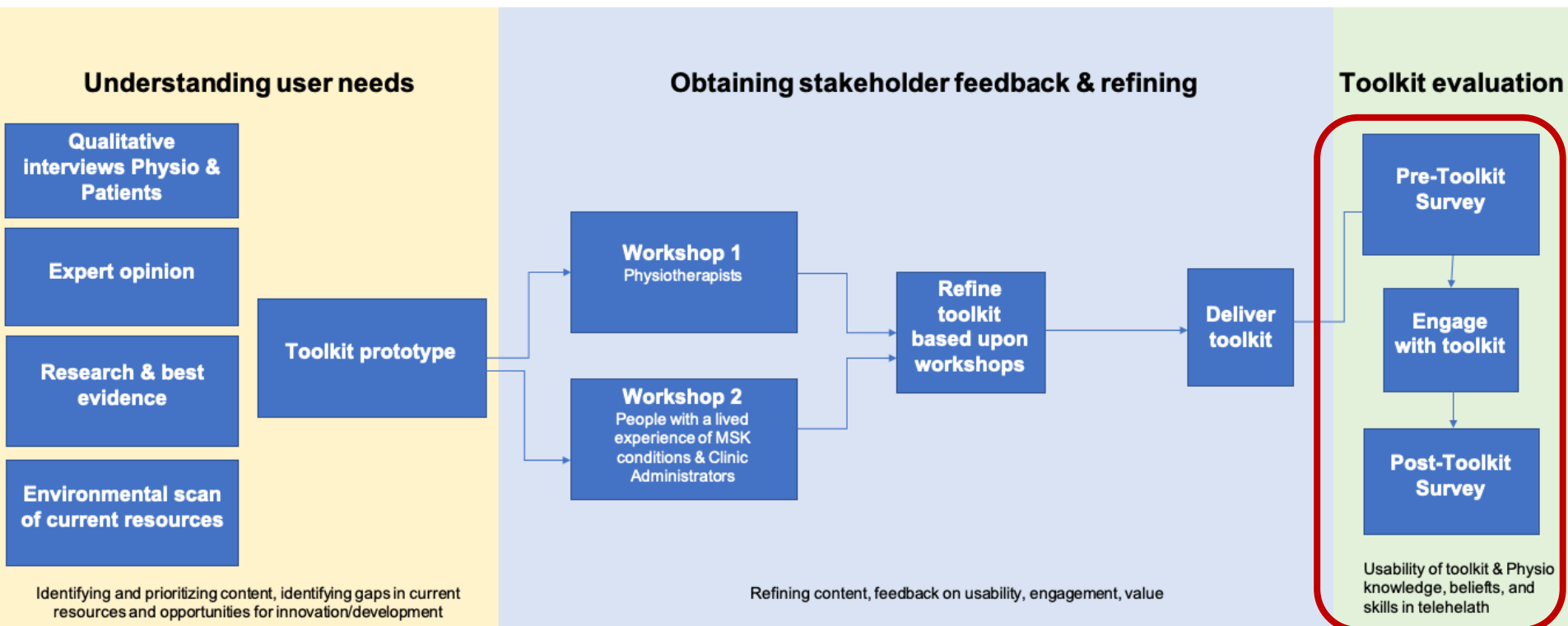## Telehealth FAQ

- Why should I choose telehealth?

Telehealth is one option for receiving physiotherapy care. For many musculoskeletal conditions, it has been proven to be as effective as face-to-face therapy. Some advantages of telehealth include: the convenience (and time saving) of not having to travel to an in-person session, your physiotherapist can see your home or work environment and adapt treatment to your context, and you have reduced exposure to COVID-19 or other illnesses.

+ How does a telehealth session work?

+ How is a telehealth session different to an in-person session?

+ Isn't physiotherapy a hands-on profession?

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MSK Telehealth Toolkit Development Process

Telehealth Toolkit Evaluation

- 365 physiotherapists, 63% women

- Country: 53% Canadian, 27% Australian, 14% other

- Practice setting: 57% private practice, 15% hospital

| Using telehealth before the pandemic	Used telehealth at any point in the pandemic	Using telehealth currently
12%	74%	53%

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Telehealth Toolkit Evaluation

Question	Strongly Agree or Agree	
	% Pre-Toolkit (n=115)	% Post-Toolkit (n=115)
I know how to provide care via telehealth	61%	83%
I have been trained to provide care via telehealth	11%	37%
I have the skills to provide care via telehealth		79%
I am confide... ...sment...		63%
...am confident that I can prescribe exercises	74%	89%
For me, performing at accurate assessment is easy	17%	23%
For me, providing treatment is easy	17%	36%
I feel comfortable treating people with MSK conditions	47%	61%

97% of respondents would recommend the toolkit to other physiotherapists!

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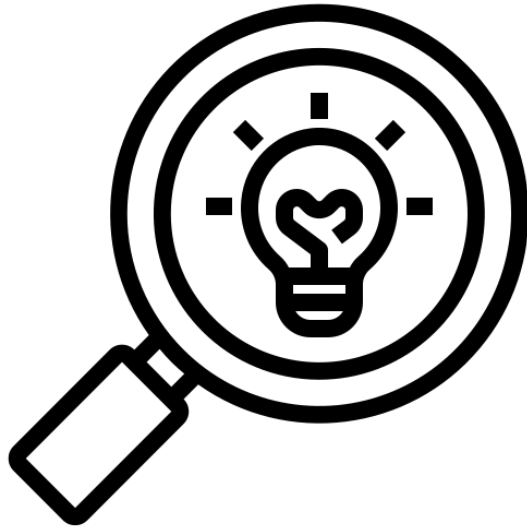
Aims of the 'My Knee' toolkit…

1. Improve an individual with knee osteoarthritis' knowledge about the condition to inform treatment decision-making and self-management.

2. Provide tools to facilitate self-efficacy for, and engagement in, guideline recommended first-line care

3. Be used as a therapist-facilitated resource by health professionals providing care for people with knee osteoarthritis

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The framework we used…

Co-design of the TREK 'My Knee' toolkit

Stage i:
Understand and define

Stage ii:
Prototype

Stage iii:
Test and iterate

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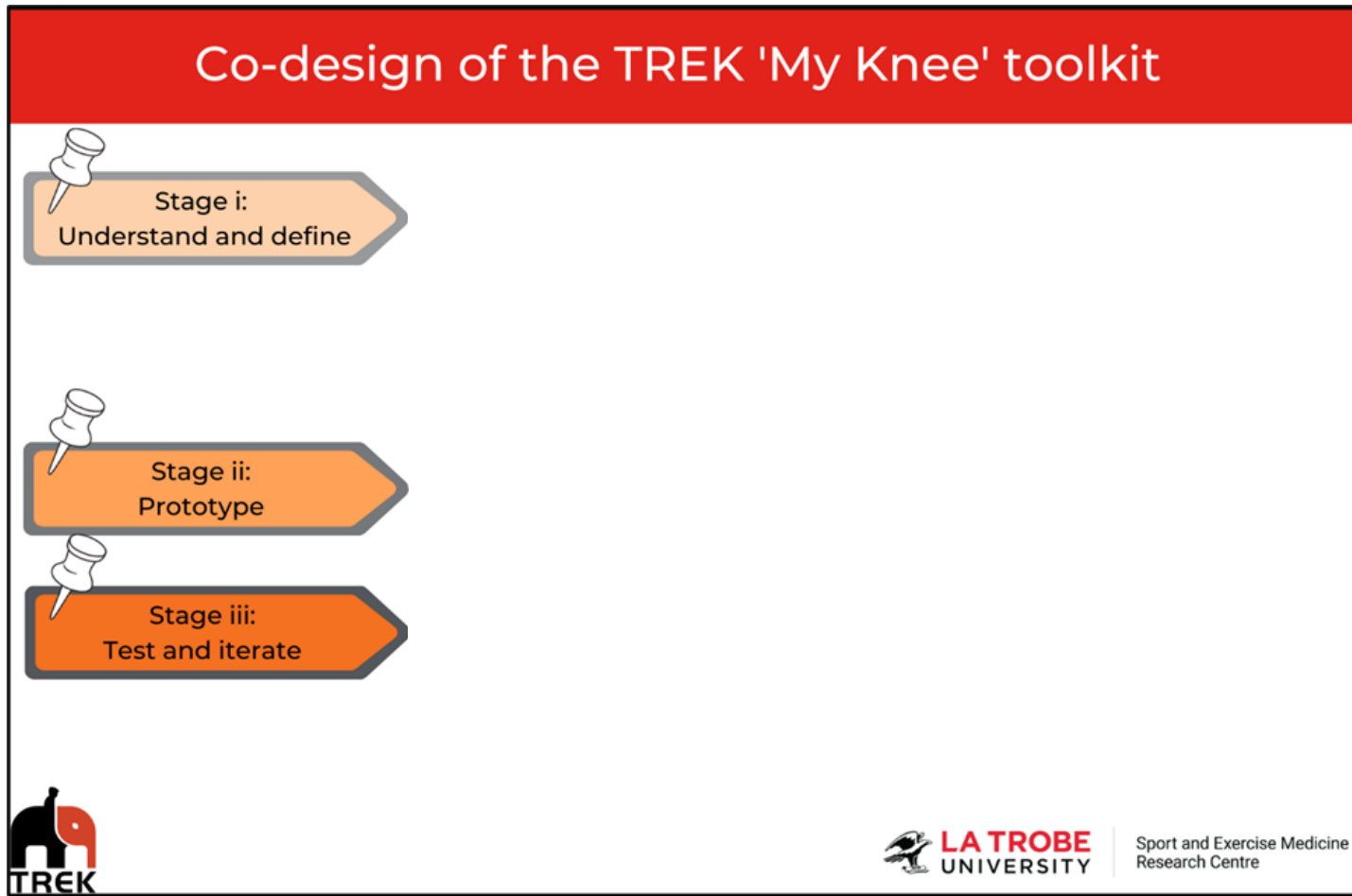
Co-design workshops

3 workshops
1. People with knee osteoarthritis
2. Health professionals
3. People with knee osteoarthritis

Sent access in advance with general instructions

2 hour online semi-structured workshop
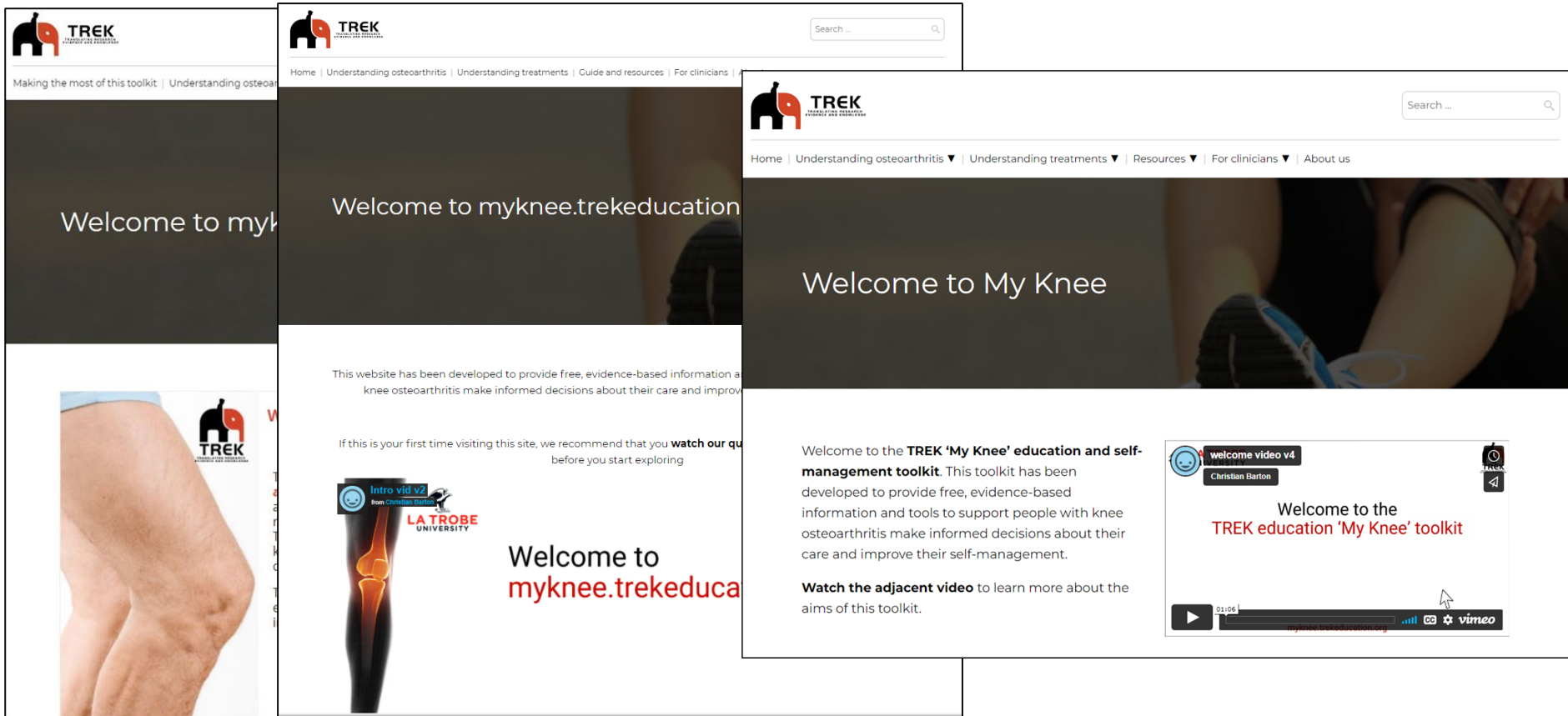
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Co-design workshops

Navigation and display of existing content

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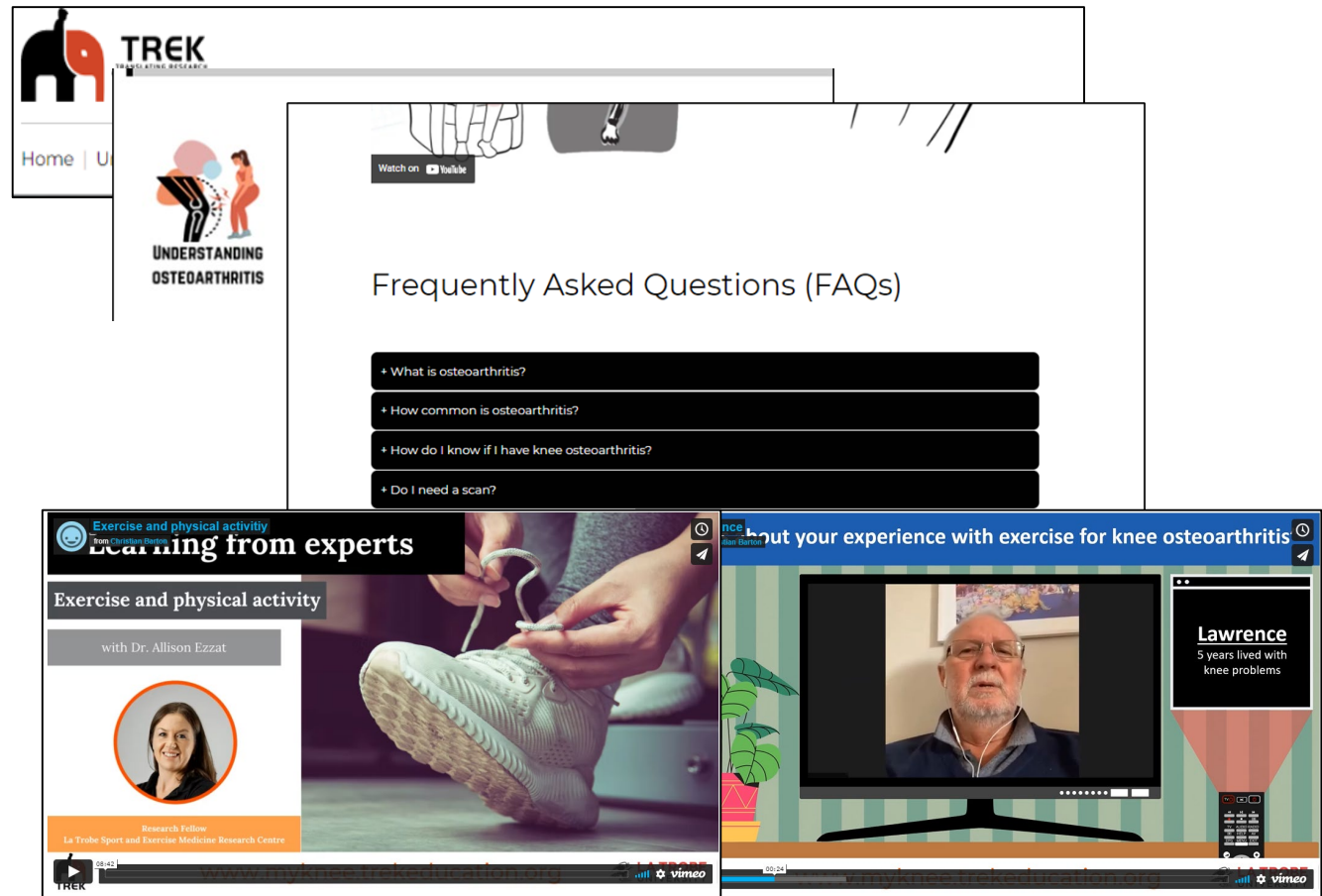
Co-design workshops

Co-design workshops

Additional content
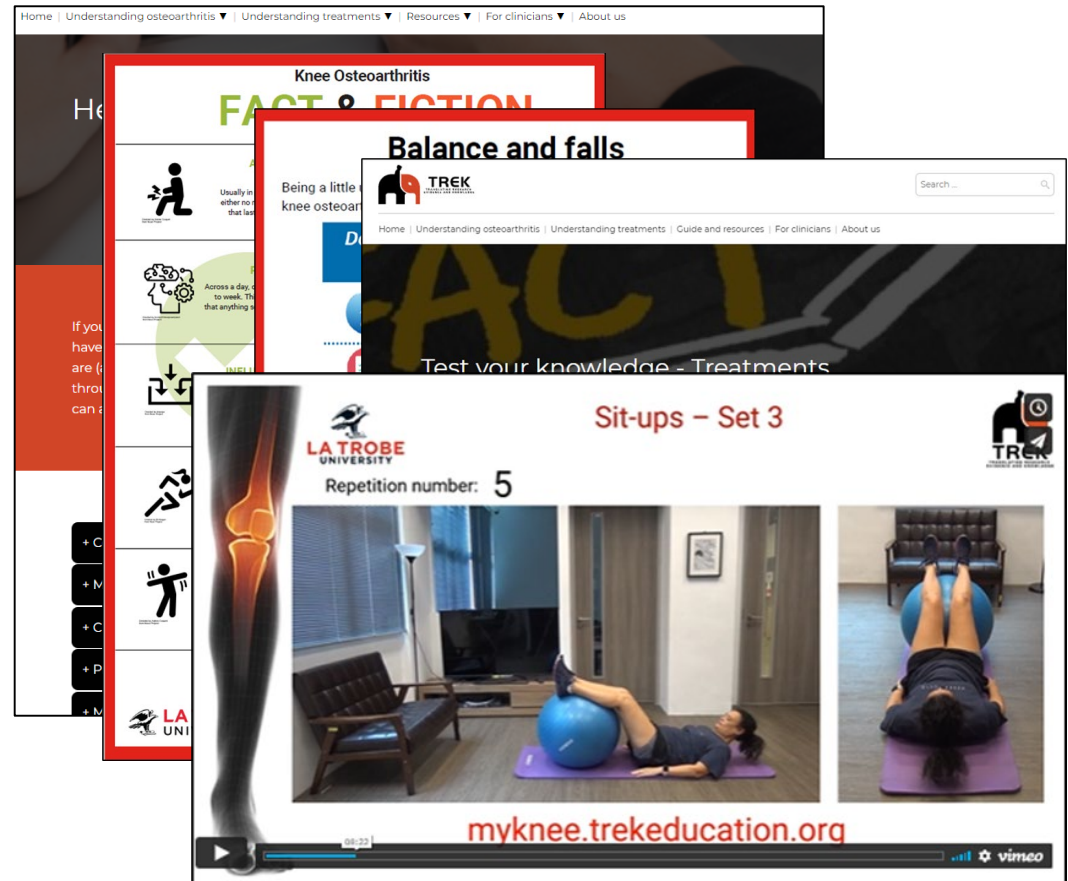
Expert review & input
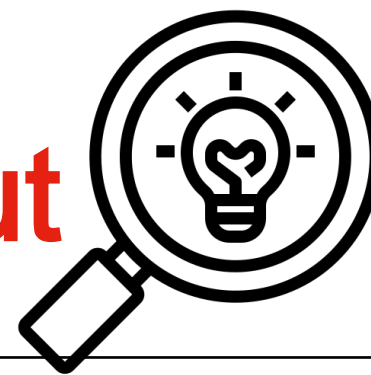
Section	Feedback data from	Actions
Homepage	*"I think only have the tiles. The second lot of subtitles seem redundant as they are at the top of the page. The different pictures are distracting."*	Homepage simplified to have tiles with picture only
How do I know if I have knee osteoarthritis	*"The NICE criteria is not the most accurate, but is the most commonly used and has highest sensitivity. Amend wording accordingly"*	Wording amended
Treatment options	*"Recommend placing injections as second-line treatment";"What advice can those living with knee osteoarthritis give you about the management of their condition?" seems in a weird banner on its own just make a drop down box with videos included"*	Injections section moved to second-line treatments Presentation of lived experience videos was changed from accordion to grid function
Exercise and Physical activity	*"Provide clearer recommendations regarding intensity and examples"; "The exercise and physical activity log is biased towards strengthening – be more explicit"; "Make navigation to exercise resources easier"; "Consumer videos about exercise feel hidden as they are all the way down page. Can they almost be in a separate section with a hyperlink to them from here?"*	Provided guidelines for intensity and examples Improved wording and updated workbook to state that the log was specifically for resistance training Exercise resource page was made more explicit on the toolkit The new presentation of the lived experience videos from accordion to grid addressed this

Evaluation…

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Benefits & challenges

Benefits

- Guided content creation

- Facilitated improvements in layout & navigation ++

Reflections

- ? Greater use of co-design earlier in process

Challenges

- Where to draw the line with opinions?

- CALD communities?

- Engagement prior to workshop

Reflections

- Funding for tech help

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INVVOLVE research end users in co-design

Table 2 For better research, INVVOLVE research end-users in co-design

*I*nvest in co-design	Allocate sufficient time and resources Pay/reward participants for their time Provide training, if needed
*N*eeds assessment	Determine project co-design needs: why, how and on what will co-design participants and researchers collaborate?
*V*ision roles, responsibilities and rewards	Set clear roles and responsibilities of all participants in co-design Clarify how co-design participant feedback will be used Ensure all parties understand the importance of co-design and the potential benefits Manage expectations – make sure that there is a shared vision and goal
*V*alidate participants	Empower and nurture participants so that they are confident enough to engage with researchers and the research process
*O*rganise interaction carefully	Make sure meeting places are accessible and familiar Make sure that any interactions are well structured and regular Regularly communicate and update all parties Prepare aids, such as glossaries, images and plans, as meeting facilitators Have backup co-design participants as some may drop out
*L*ead the engagement	Carefully define and control the scope of engagement Don't let groups dominate conversations and decision-making Discuss and defuse tensions
*V*alue patient time and input	Build trust and rapport between researchers and co-design participants Give co-design participants some choice and control
*E*valuate and report	Document all engagement processes Evaluate processes and outcomes based on predetermined criteria Report findings

Slattery et al, 2020

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Acknowledgements & Thanks

- **Telehealth Toolkit Research Team:** Jo Kemp, Danilo de Oliveira Silva, Marcella Pazzinatto, JP Caneiro, Peter Malliaras, Trevor Russell, Stephanie Gourd, Rhona McGlasson, Amy Dennett, Christian Barton

- **Co-design stakeholders:** all physiotherapists, clinic administrators, & patients with lived experience of musculoskeletal conditions who participated in workshops

https://telehealth.trekeducation.org
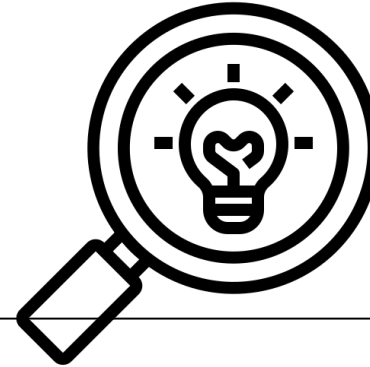
https://myknee.trekeducation.org

Thank you

latrobe.edu.au

The framework we used…

How to Co-Design digital inclusion in Health

A pathfinder model

July 2019

Good Things Foundation

Co-design model

STAGE 1:
UNDERSTAND and DEFINE

STAGE 2: IDEAS and PROTOTYPE

STAGE 3:
TEST

User needs	**Stakeholder needs**	**The thing**	**Iterate**	**Deliver**
User needs not wants. Spend time with people to understand their needs.	Understand their pressures, expertise, view of current system and how things can improve	Create a set of recommendations to try out. Using things that already exist to prove concept	Try it for a while. Take stock. Find out what is working and what isn't then iterate	Deliver and evaluate

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Co design features

Start-up and engage   Gather   Understand   Improve

https://aci.health.nsw.gov.au/