Monograph:

Wolstenholme, D., Bec, R., Tod, A. et al. (1 more author) (2019) Translating Knowledge into Action Report 2019 : using creative methods to co-design better healthcare experiences. Report. National Institute for Health Research , Sheffield, UK.

NIHR | Collaboration for Leadership in Applied Health Research and Care Yorkshire and Humber

Translating Knowledge into Action

Report 2019

Using creative methods to co-design better healthcare experiences

CREATIVE CO DESIGN

Translating Knowledge into Action Casebook

This case book collects some highlights of the work of the UK National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care (CLAHRC) Yorkshire and Humber (YH) Translating Knowledge into Action (TK2A) theme.

The theme used learning developed from the User-centred Healthcare Design (UCHD) theme of the NIHR CLAHRC South Yorkshire (SY) (2008-2013), which sought to develop and evaluate a methodology for health service improvement and innovation by applying methods and characteristic ways of working from design to specific health services.

The TK2A theme is interested in how we translate knowledge, in its many forms, into action. For our theme, action means change in how we deliver or experience health and social care. We are particularly interested in the contribution of creative practices and design and participatory working to deliver successful change.

- We believe that through using these creative methods we allow genuine and meaningful coproduction that allows the contribution of all the stakeholders of a project or service to share and synthesise new knowledge[1].
- We believe by ensuring the outputs (interim or final) are visible and tangible it not only addresses power in relationships, but also allows people to engage with the process in a more embodied way and see the outputs of their contributions in real time[2].

Through these two principles we believe that we attend to the moral and pragmatic reasons to involve people in change[3], and allows us to develop products and services that are contextually sensitive and that have the best opportunity to be implemented, so delivering change for the better.

As the TK2A project draws to a close in September 2019, the work will be taken forward with colleagues in Lab4Living at Sheffield Hallam University Art and Design Research Centre.

We hope that you will find these case studies interesting and see the value of the creative methods and of involving creative practitioners in delivering services and products that will improve the health and wellbeing of the people of Yorkshire and Humber and beyond.

Daniel Wolstenholme

TK2A Theme Manager and Visiting Researcher in the Art and Design Research Centre at Sheffield Hallam University

Dan undertook a first degree in Neuroscience before training as a nurse. During this time, Dan completed an MMedSci in nursing and healthcare studies and lectured on pre- and post-registration nursing courses within the School of Nursing at the University of Sheffield.

Following this Dan worked in Research management and governance before taking up his role as project manager and clinical researcher on the User-centred Healthcare Design project within the NIHR CLAHRC SY. In the Yorkshire and Humber CLAHRC Dan's role involved managing research, using design and creative practice to mobilise knowledge and supporting innovation in healthcare.

Dr. Remi Bec

TK2A Design Researcher

Remi studied model making and interior design in France and then switched to product design when he moved to the UK. He studied at Sheffield Hallam University and graduated from a Master and a PhD in Design, and during which he was part of the User-Centred Healthcare Design team (UCHD). He joined the TK2A team in 2017 and is the design researcher based in the Royal Hallamshire Hospital.

Remi's roleconsists of applying design thinking and skills to plan and drive workshops with diverse stakeholders to help utilise research knowledge to improve healthcare services. According to the nature of the projects, stakeholders might be patients, NHS staff, GPs, health researchers and other health professionals.

Professor Angela Tod

Professor of Older People and Care in the School of Nursing and Midwifery at the University of Sheffield

TK2A Theme Lead Angela is currently Professor of Older People and Care in the School of Nursing and Midwifery at the University of Sheffield. Prior to this post she has had many years of experience conducting and applying research into healthcare.

She has extensive academic, research, managerial and strategic experience gained from within both healthcare and University sectors and a legacy of research capacity building, working in and across settings. Angela's research has mainly focused on care for adults and older people. The particular research focus is in patient experience studies, especially in areas of public health, health inequalities and health care access.

Cheryl Grindell

Physiotherapist and Clinical Researcher

Cheryl is a physiotherapist and clinical researcher who has been working with the TK2A team since 2014 after completing a placement with the User Centred Health Care Design team within CLAHRC SY as part of her NIHR Masters in Clinical research.
Her research interests lie in the role co-design and creative methods can play in knowledge mobilisation in healthcare and she is about to embark on a PhD exploring this specifically in relation to musculoskeletal physiotherapy.
She continues to work clinically in the MSK therapy department at Sheffield Teaching Hospitals NHS Foundation Trust.

Thanks to:

Beth Stevenson
Jenny Powell
Joe Langley
Rebecca Partridge
Andrew Booth
Jane Mckeown
Gemma Wheeler
Helen Fisher
Rachel King
Tony Ryan
Christine Smith
Tom Sanders
Kate Gerrish

Creative Methods

Throughout this casebook, we have identified the types of methods we have used to deliver creative co-design. Each case study has used a selection of these methods, but each time a method is used it is always sensitive to the context and content of the individual project. Check the top left of each case study page to review methods used.

Warm-up

(Taboo, How many uses, Bingo) - not just 'ice-breakers', these warm up activities focus on supporting individuals to recognise their own unique ability to contribute to the creative co-design process, regardless of their background or role in the project.

Personas

(1 sided, 2 sided, 3D) - to visually represent peoples' experiences, through characters that allow all the participants to retain some critical distance from their own experience, it helps to counter the valid desire for people to just share their own story.

Storyboards

To visually represent either problem or solutions in a visual way that allow participants to suggest different key steps or endings that might lead to a better outcome.

Prototyping

To make a concept or an idea tangible. Prototypes, which can either be 2D (e.g. sketch, video) or 3D (e.g. proof of concept, service visualisation, fully working prototype), are a very effective method to communicate an idea and gather feedback. Sometimes this can be done in an ambiguous way on purpose based on the expected outcome (e.g. idea generation or feedback on specific aspect to develop forward).

Design Prompts

(Using symbols and icons or Missing word/sentences) - to prompt different answers and stimulate new thinking, abstract images are particularly useful as they can be individually interpreted in a way that words can't be.

Prioritisation

At the point of defining which of several ideas we should take forward the visual act of assessing ideas for impact and feasibility can be done in a participatory and visual way.

Posters

To either summarise progress to date or to remind participants of the goal of the workshops or project.

Maps

(Personal experience, of a service) - to make the intangible tangible, really useful when trying to design services where the journey is usually not visible to all the actors in the service. The visual aspect allows all participants to contribute, adding new lines or items to the visualisation, coproducing the final understanding.

Contents

Promoting physical activity after stroke

Meet the project lead

My research interests include health economics relating to stroke, exercise interventions for stroke prevention, hip fracture and bone density and gait. I was interested in what inhibits uptake of exercise after stroke or TIA, which could transform the chances of the nearly 80% of people who survive a stroke. Unfortunately, only a minority of patients achieve the 150 minutes of recommended moderate exercise each week, so I wanted this project to explore barriers and ways to overcome them, so that people might participate and sustain their behaviour to make good recoveries and prevent recurrent strokes and attacks.

Dr Ali Ali –
Consultant in Geriatrics and Stroke Medicine and Research Lead for the GSM Directorate

ali.ali@sth.nhs.uk

STROKE COSTS
THE UK ECONOMY
£9 BILLION
EVERY YEAR.

Context

Stroke is the 4th leading cause of death and of adult disability in the UK, affecting 152,000 people every year and costing the UK health economy nearly £9 billion. A quarter of these strokes – around 38,000 – are recurrent, and are often preventable by physical activity. Yet less than half of UK adults over the age of 65 years achieve the recommended levels of activity and exercise, and this declines further after stroke and TIA.

This project used co-design, involving end-users in shaping provision in Sheffield, where it was thought that this approach could address some of the challenges at the heart of encouraging exercise uptake. See the full report here.

Project aims

The aim of this project was to explore ways to promote exercise in stroke survivors living in Sheffield, using co-production workshops to better understand support from the service user point of view. Working directly with these stroke and TIA survivors we explored what stopped them from or encouraged them to take up and sustain exercise and how they would be encouraged to embrace it and all its benefits.

Based on the experiences of the services accessed by these people in Sheffield and using co-production methods, we intended to:

- Understand the current delivery of exercise after stroke,
- Understand the myths, the enablers and barriers to exercise,
- Network with various care services and industry organisations to understand what types of physical activity are available for people with disability across Sheffield, and
- Explore ways in which the experiences of the health care services could be improved.

The approach

We used storytelling and visuals as a key tool in this project. Our 'Daily Planet' newspaper was a useful way of exploring the myths around exercise after stroke, and helped to us to develop understanding around both patients and staff experiences. Key barriers and enablers of services provided in Sheffield were identified and it was a useful starting point in mapping out those factors (Figure 1).

During phase one, our participant groups generated many ideas using a light bulb template. We used COM-B as a tool to organise ideas - a recognised framework in Healthcare that posits that to change behaviour (B), there is a need to ensure that programmes promote capability (C), opportunity (O), and motivation (M) among the end-users. We regrouped the co-generated ideas into mechanisms and populated them based on COM-B. We then assessed all those ideas against an effort-impact framework, discussing how much effort might be needed to develop an idea and the impact it would have.

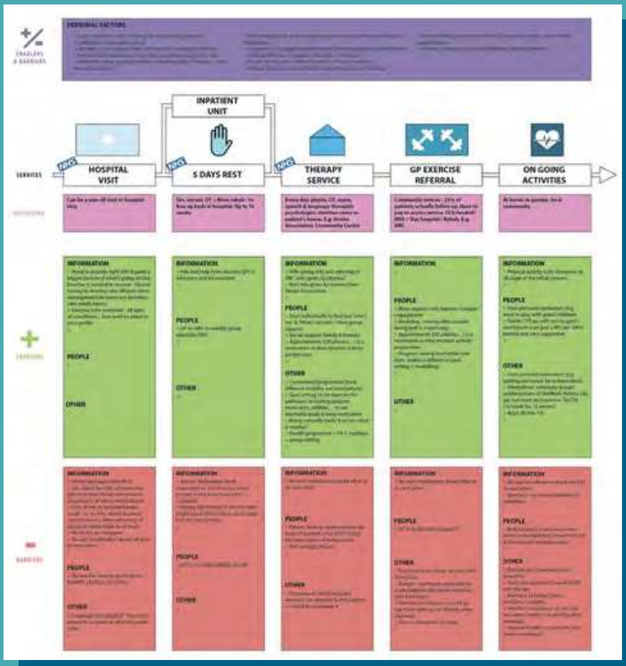
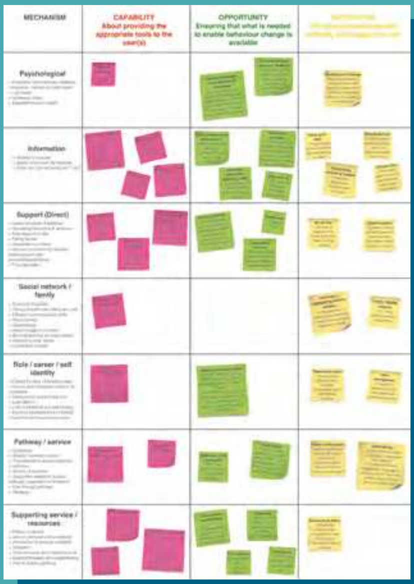


Figure 1



We used COM-B as a tool to categorise ideas from the sessions.

Groups assessed effort to realise the idea against its likely impact.

38K

STROKES ARE RECURRENT AND OFTEN PREVENTABLE BY PHYSICAL ACTIVITY

The workshops

The multidisciplinary core team, composed of health professionals and designers, co-facilitated a series of five workshops. This design-led project can be split in two phases: the first defined a series of briefs and the second responded to them.

The first three workshops (phase 1) consisted of understanding the participants' experience, defining a series of design briefs and exploring initial ideas to create an ideal service composed of 4 main briefs. Then, 10 students from the product design course at Sheffield Hallam University joined workshops four and five (phase 2). In this second phase of the project, students were paired with stroke survivors and healthcare professionals to develop their own brief.

Throughout the duration of the project, 71 people were involved. At least 15 participants were involved in each workshop, gathering together stroke survivors (all within the past 5 years), healthcare professionals, exercise prescribers, social services, commissioners, medics and the voluntary sector.

The students introducing their idea to their group of professionals and stroke survivors.

Testimonials

Collaborating with design students allowed creative methods to be brought to the fore, and these methods really engaged people who might otherwise have struggled to participate (e.g. those with aphasia). They allowed everyone a chance to contribute and engage, by capturing each individual's experience and insight.

Having the stroke consultant in the workshops, working alongside survivors, challenged the traditional patient / consultant relationship. Levelling the power in the room by giving time and a voice to everyone through making ideas tangible (e.g. prototyping) as a way to develop trust.

Such visual methods support people who may have otherwise struggled to contribute and engage fully in workshops.

Furthermore, a focus on practical solutions values the participants' contribution in a way that more traditional approaches may not.

> When asking questions or using activities to uncover information you have to ensure that you facilitate in a way that allows them to respond in a bit more depth if possible – sometimes they may need a few prompts.

> It's been the most interesting project across all three years of university as although we've had live projects before, this one feels the most 'real world' and worthwhile as it's helping people who seem to appreciate what you are trying to do. I've learned more about the research process of design and the ways you can use the comments from the target market earlier on to shape the direction of the project.

Student participants, Sheffield Hallam University.

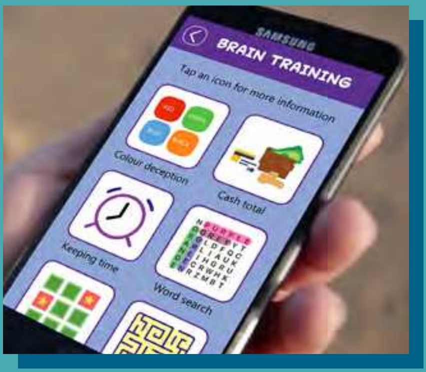
Project outcomes

Several briefs emerged from the research workshops, which the students responded to with proposed ideas that they pitched to the participant group. The first was a communications campaign to counter myths and promote physical activity, with a video raising awareness of the benefits of exercise. One proposed a staff training package to help the consistent delivery of information regarding exercise after a stroke, and another described a stroke survivor’s ‘passport’, giving them access to relevant and customised information and keeping their medical information in one place. Other ideas included a ‘buddy box’ of tools and information for survivors, and an app to suggest tailored exercise programmes and facilities in the locality.

Each brief and proposal was developed independently, to allow the student projects to be marked as an individual piece of work, however all of the proposed ideas are complementary and phase three will see them all come together. We’re sharing our findings with teams across the world and seeking additional funding to create one proof of concept to prototype and test in stroke wards.

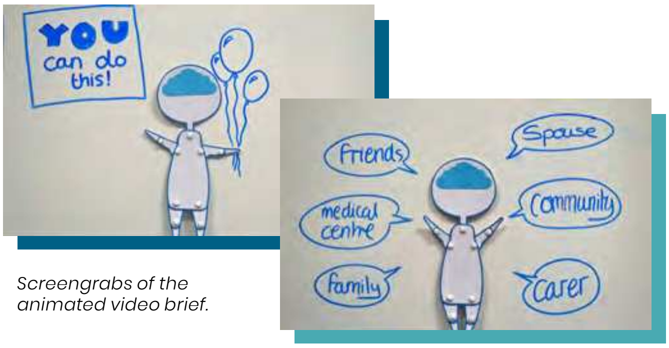
EXERCISE

1. REDUCES BLOOD CHOLESTERAL
2. IMPROVES GENERAL FITNESS
3. IMPROVES MENTAL HEALTH & MOOD



Ideas included maps showing local facilities and apps delivering tailored exercise programmes.

The training package that is now engrained into current systems (i.e PALM).



Screengrabs of the animated video brief.

The acronym of the project coming from the marketing campaign brief.

Avachat

Co-designing a virtual agent to support self-management of long-term conditions

Meet the project lead

I am a health services researcher and a chartered psychologist. I have been a member of The University of Sheffield since 2011, working within the School of Health and Related Research, within the Centre for Assistive Technology and Connected Healthcare (CATCH) as a Translational Research Scientist.

My research interests lie in addressing health inequalities for vulnerable groups, particularly those with mental health needs, the elderly and individuals with long term conditions, with a focus on the psychosocial barriers and benefits of innovative digital technologies.

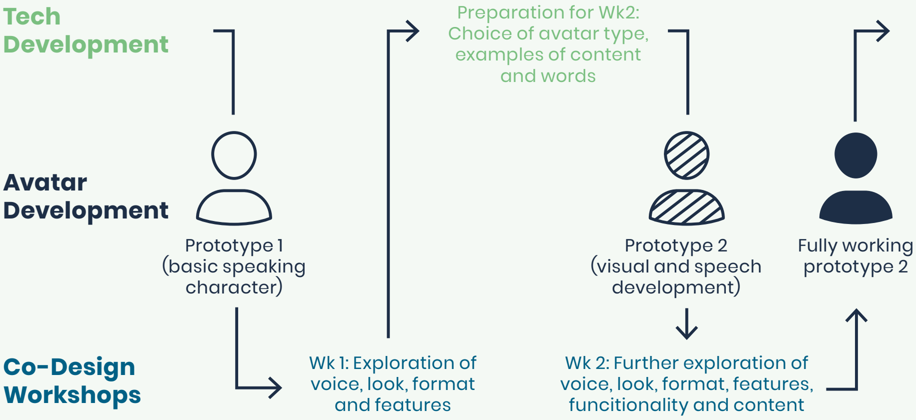
Kat Easton –
The University of Sheffield

k.a.easton@sheffield.ac.uk

Context

Life with a long-term physical health condition can often lead to re-occuring mental health issues, creating a cycle of conditions that can be distressing for the patient and further detrimental to their health. The knock on effect of this is greater demand and dependence on healthcare provision and intervention.

Digital tools are increasingly helping to both alleviate need and meet demand, and we wanted to explore how an autonomous virtual agent might support patients to self-manage their health. Working with patients living with Chronic Obstructive Pulmonary Disease (COPD), we wanted to harness first-hand experience to design and develop a prototype virtual assistant that would help patients to identify and respond to their needs, where possible.



Technology and co-design workshops activities informed each other iteratively.

DIGITAL TOOLS ARE INCREASINGLY HELPING BOTH ALLEVIATE NEED AND SUPPORT PATIENTS TO SELF-MANAGE THEIR HEALTH.

Project aims

The aim of this project was to co-design the content, functionality and interface modalities of an autonomous virtual agent to support self-management for patients with an exemplar long-term condition (Chronic Pulmonary Obstructive Disease - COPD). We also assessed the content of the system created and its acceptability among the participants.

Our objectives were to:

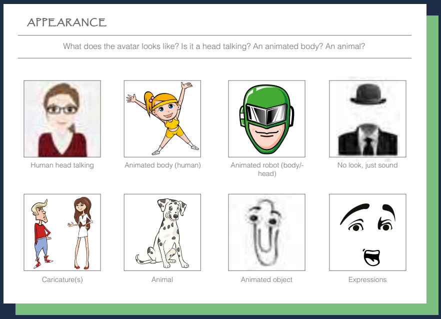
- Understand what a day in the life of people living with COPD was like,
- Identify moments in the day in the life when a virtual agent might support self-management, and
- Explore what a virtual agent might look and sound like, taking into consideration which technology might be most appropriate for people living with COPD.

The approach

To find out what a day in the life of participants looked like, we asked the participants to create a timeline using a series of icons to describe their daily activity. Alongside the activity icons on the timeline, they were asked to use emoticon style icons to show how they felt at those moments.

We also looked at existing virtual agents to critique the positives and negatives about such technology among this population, using mood boards as a way to capture the participants' views and visions. This discussion, and a set of personas guided our exploration of how the virtual agent 'Ava' might look and sound like, and how and when it might help end-users. From this, we co-designed in workshop two the script for each of the identified scenarios that would inspire our virtual agents. We used the 5 ways to wellbeing to help guide how and when the virtual agent could be used.

Describe a typical 'day in the life' with emotions associated during each activity conducted in the day.



APPEARANCE

What does the avatar looks like? Is it a head talking? An animated body? An animal?

Human head talking

Animated body (human)

Animated robot (body/-head)

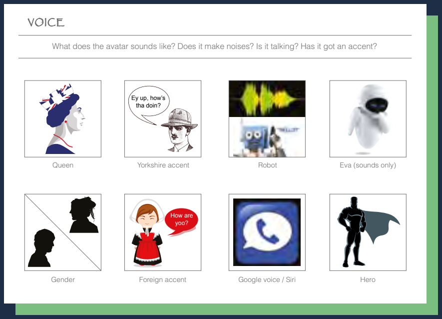
No look, just sound

Caricature(s)

Animal

Animated object

Expressions



VOICE

What does the avatar sounds like? Does it make noises? Is it talking? Has it got an accent?

Queen

Yorkshire accent

Robot

Eva (sounds only)

Gender

Foreign accent

Google voice / Siri

Hero

Prompt cards to explore the look and sound of the virtual agent to create.

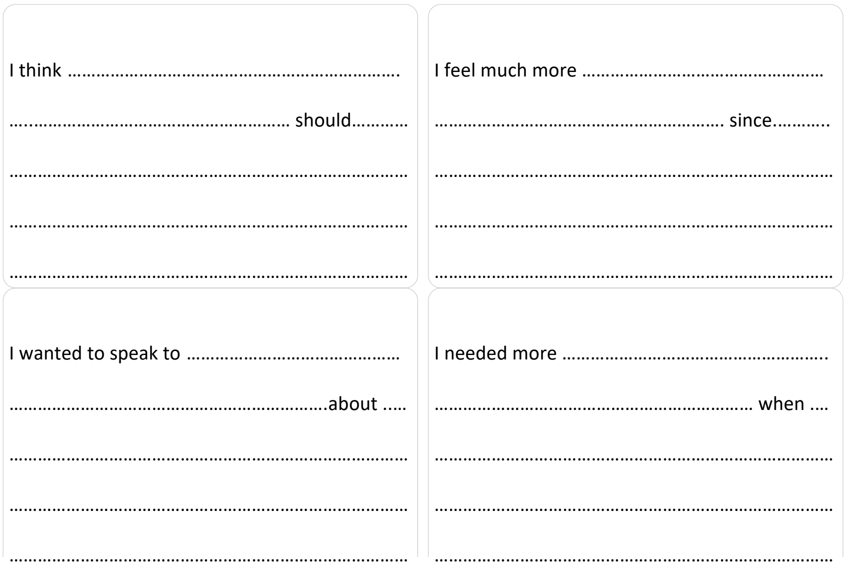
Avachat

The workshops

A total of 10 individuals living with COPD were recruited through local British Lung Foundation's 'Breathe Easy' support group, along with 10 health professionals, for the two co-design workshops.

Workshop one considered initial user requirements to develop the prototype system. The activities, conducted in small groups with time for feedback and reflection, focused on gaining a shared understanding of the daily lived experience of COPD.

This workshop inspired a first working prototype for our virtual agent, which we took into workshop two for testing with participants. During the second workshop we further designed and developed the agent, and how it might deliver the core functionality we had discussed in workshop one.



I think ……………………………………………………
…………………………………………… should…………
……………………………………………………………
……………………………………………………………
……………………………………………………………

I feel much more ……………………………………
…………………………………………… since…………
……………………………………………………………
……………………………………………………………
……………………………………………………………

I wanted to speak to ……………………………
……………………………………………………about …..
……………………………………………………………
……………………………………………………………
……………………………………………………………

I needed more ……………………………………………
…………………………………………………… when ….
……………………………………………………………
……………………………………………………………
……………………………………………………………

What we discovered about method

Recruiting participants through an existing group like Breathe Easy really helped us to find the right number of people quickly. We advertised the research through the Breathe Easy groups and this also meant that participants knew each other, which gave a sense of community and trust during the workshop.

> The project was a great idea and I was pleased to be involved in it, as with any other way of raising awareness of the means available to Patients suffering from Respiratory Problems. I was not sure whether to just be a patient, or pretend to be a very poorly patient with limited knowledge of my health management [but] we got it done, and it added some to my varied life experience.
>
> I'm pleased that due to exercising, dieting and living sensibly, I feel that I'm a very contented and able 83 years old patient with an incurable disease.

Terry - Breathe Easy Sheffield.

Project outcomes

The use of technology to support automated delivery of therapy and healthcare is more and more present in our society, supporting healthcare provision to meet increasing demand. Such technology might not always be seen as appropriate for a population that grew up without it, but we found that supported self-management delivered via an autonomous virtual agent was acceptable to the participants. The co-design process allowed us to work with end-users of the service to identify key design principles, content and functionality. This, combined with the collaboration made with the CATCH team allowed us to respond to real need and to present this response back to the participants in different forms.

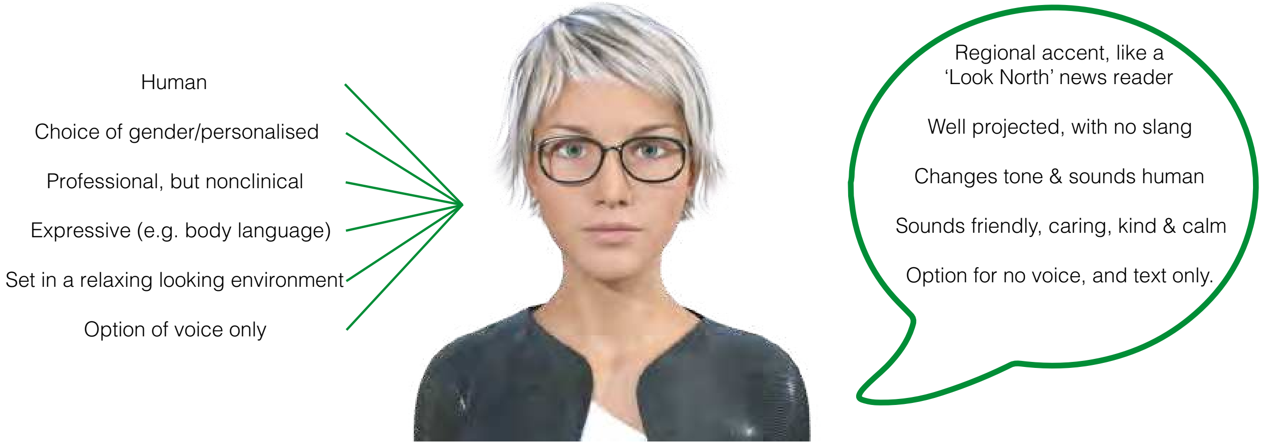
> **WORKING WITH END-USERS**
> **ALLOWED US TO IDENTIFY KEY DESIGN PRINCIPLES, CONTENT AND FUNCTIONALITY.**

Iterative prototyping and feedback led to developing a fully working prototype. A video featuring 'one of our participant and which demonstrates how 'Ava' works can be viewed here.

The potential for this reaches beyond those suffering COPD too, and could be applicable to a whole range of long-term conditions where patients might benefit from a constant, reliable, predictable virtual support to help them manage everyday life. Iterative prototyping allowed us to constantly review and refine the service and will continue to inspire its development.

Available on:

Computer **Tablet** **Smartphone** **Smartwatch** **Television** **At home** **In the car** **On the move**



Human

Choice of gender/personalised

Professional, but nonclinical

Expressive (e.g. body language)

Set in a relaxing looking environment

Option of voice only

Regional accent, like a 'Look North' news reader

Well projected, with no slang

Changes tone & sounds human

Sounds friendly, caring, kind & calm

Option for no voice, and text only.

Features:

Panic mode (e.g. if having exacerbation)

Reminders (e.g. to eat/drink)

For relaxation/sleep

Link to advice/support groups

Family/carer involvement

Contact for housebound people with COPD

Linked to GP/therapist/pharmacy

Care/appointment planner

Access results/scans

Tool to help you think & interact with GP/nurse (i.e. remember questions, link to health record)

Recording of peak flow, BP, tracks exercise, etc

Visual summarising workshop from Workshop one and presented back to the group on Workshop two to keep developing Ava.

How health practitioners can support domestic violence survivors from Black and Minority Ethnic (BME) communities

Context

Domestic violence and abuse (DVA) affects people in all communities. But migrant women and those from black and ethnic minority (BME) communities often experience additional barriers to intervention and support, particularly around language and culture. Nurses in any setting – especially primary care – can play a vital role in supporting women who have experienced DVA.

In this project, interviews and focus groups explored the perspectives of nurses and survivors of DVA regarding the role health practitioners play and expectations around the provision of support services. The TK2A team then planned and facilitated the co-design workshops to explore these insights further and develop appropriate resources and strategies to enhance the support nurses could provide in a primary care setting.

Project aims

We wanted to deliver two workshops that would explore and understand the experience of accessing services, disclosing and discussing DVA, and the social and psychological consequences of enduring abuse. By doing this we hoped to develop resources to enable primary care nurses to deliver support that responded to the needs of BME women experiencing domestic violence and abuse.

Our first workshop explored first-hand experience, so we could identify the challenges and the needs of the women we wanted to help. The second workshop focused on developing ideas for the look, feel and content of a resource that would help primary care nurses to deliver the support that would best respond to the needs of DVA survivors.

Meet the project lead

I've been nursing and teaching my whole life, and have been lecturing in the School of Nursing and Midwifery at the University of Sheffield since 2014. Before this I lectured at the University of Hull, but my original nursing qualifications were gained in Karachi, Pakistan.

I have always had an interest in exploring health, inequalities and the experience of health care in the context of genetics, and gender-based violence. This project combined this with my passion for exploring, understanding and tackling health inequalities relating to gender and ethnicity, and how preparation and training of health professionals such as doctors, nurses, and allied health professionals can contribute to tackling such issues.

Parveen Ali -
Wall of BAME, Race Equality - Inclusion at The University of Sheffield

The approach

Vital to our workshops was a sense of community and support, so we collected and dropped off participants, and provided a communal lunch to bring a more social feel to the sessions and put everyone at ease. We recruited our women with experience of DVA via the support services they were already accessing and throughout the sessions these contributors remained in pairs in their working groups, allowing peer support. The two sessions, which engaged 12 and 18 participants respectively, brought together these women with GPs, domestic violence support workers, nurses and specialist support workers from GP surgeries.

We remained especially mindful of language and cultural barriers, especially since our subject matter was so emotive. Staff, including the project lead – herself of a BME origin – were on hand to help overcome these barriers. We used mainly visual prompts to initiate conversation, firstly about unrelated topics but later about the experience of DVA and accessing support. Everything was focused on creating as relaxed, warm and supportive an environment as possible.

The workshops

Drawing activities were used as a warm up to allow participants to get to know a little about each other and put the group at ease. Images were used to allow participants to express their thoughts initially on an unrelated topic. These visuals were then used to stimulate thoughts about their experiences of disclosing/ seeking support from a health care professional. Staff carried out this activity using visual imagery to describe their experiences of clinical encounters that involved disclosure or suspected DVA. Personas were developed by the group in order to distance the participants from the DVA scenarios whilst allowing a wide range of victims and circumstances to be considered.

The second workshop used information gathered in workshop one to inspire a design brief for our resource packs. We used storyboards to map out an ideal support service, including persona specific ideation that would respond to specific circumstances and barriers, such as language. Held in a community centre, we knew it would be important for the workshops to remain informal, relaxed and comfortable. The workshops inspired some prototype resources for clinicians and a women's community group to trial.

visual prompts helped contributors to tackle challenging topics.

What we discovered about method

We knew that people would need to be supported and as relaxed as possible in order for them to share their experiences. Our location – a community hall – helped us to achieve this, however it was cold, and this made conditions less comfortable for all participants.

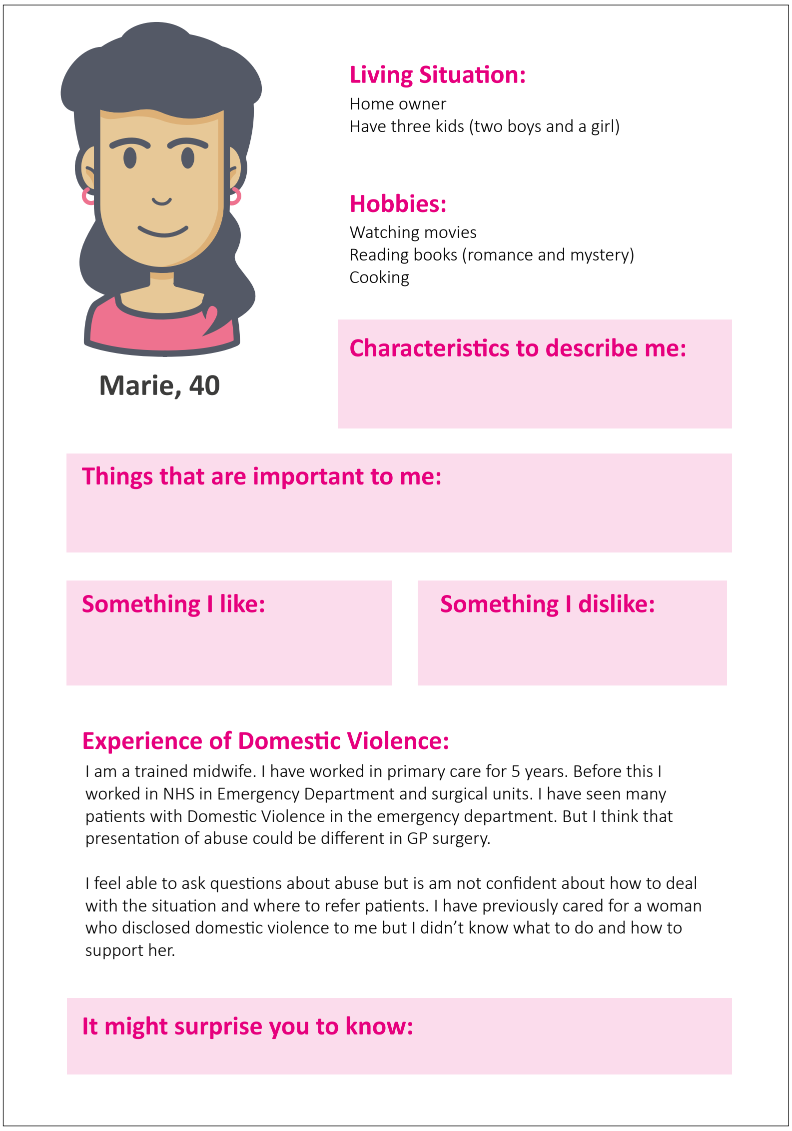
Our main discovery was about the value of imagery. A picture spoke a thousand words in our experience, and this was especially important when considering how deeply language barriers can inhibit women's access to support, or confidence in coming forward. We also realised early in workshop one that DVA survivors valued working in pairs, using each other in the workshop groups not just for support but to navigate language barriers together.

The recruitment of clinicians was challenging. Nurse attendance of the second workshop was disappointing, however, it meant that every health professional got to work one to one with a woman who had experienced DVA – this seemed to relax participants and encourage their confidence and openness.

Domestic violence survivors from Black and Minority Ethnic (BME) communities

> "Having recently worked as an ANP in a GP surgery and walk-in centre, I participated in a 2-day workshop on raising awareness of Domestic Violence (DV) in BME communities by healthcare practitioners. My previous training in this area was limited to a mandatory 'safeguarding adults' course.
>
> Working in groups alongside victims of abuse was incredibly effective in sharing experiences and thinking about how to engage people who may need help. One of the activities involved developing personas on large sheets of paper, drawing out some of the common traits of those who experience DV. We shared ways in which we broached the subject with patients, and co-designed new ideas of how this could be improved. The tool which was developed from the workshops will be an important guide for clinicians to prompt discussions with patients and signpost them for further support."

Rachel King – Nurse practitioner and researcher.



Marie, 40

Living Situation:
Home owner
Have three kids (two boys and a girl)

Hobbies:
Watching movies
Reading books (romance and mystery)
Cooking

Characteristics to describe me:

Things that are important to me:

Something I like:

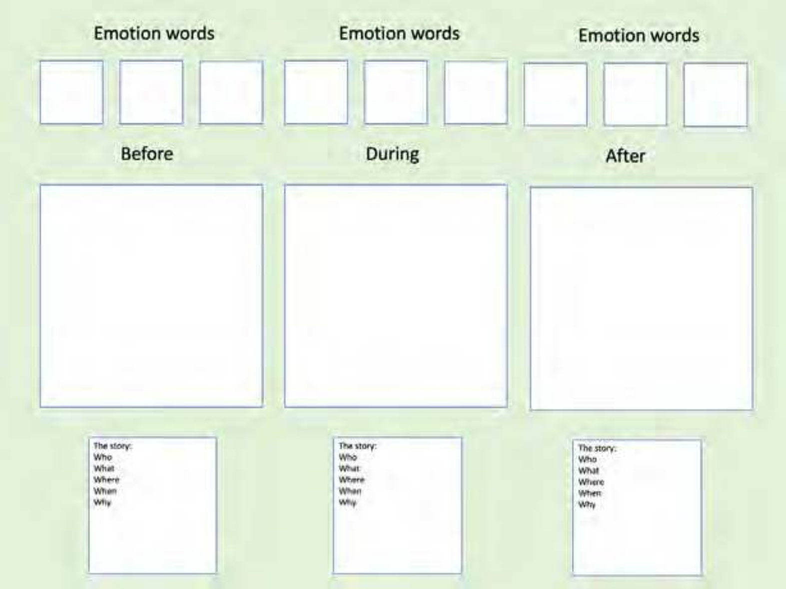
Something I dislike:

Experience of Domestic Violence:
I am a trained midwife. I have worked in primary care for 5 years. Before this I worked in NHS in Emergency Department and surgical units. I have seen many patients with Domestic Violence in the emergency department. But I think that presentation of abuse could be different in GP surgery.

I feel able to ask questions about abuse but is am not confident about how to deal with the situation and where to refer patients. I have previously cared for a woman who disclosed domestic violence to me but I didn't know what to do and how to support her.

It might surprise you to know:

Using personas allowed us to tackle sensitive issues from a bit of a distance.



Emotion words	Emotion words	Emotion words
Before	During	After
The story: Who What Where When Why	The story: Who What Where When Why	The story: Who What Where When Why

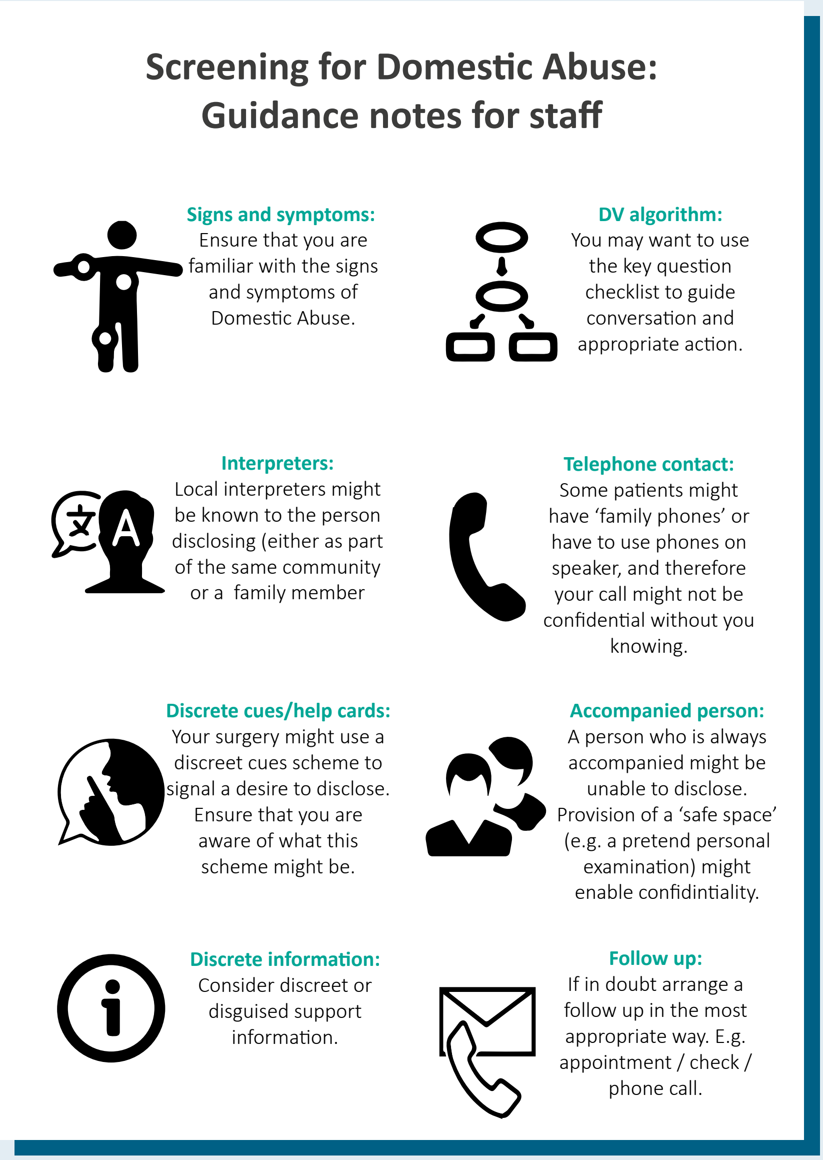
This activity used images to stimulate discussions about disclosure.

Project outcomes

Both health professionals and the women who had experienced DVA concluded that nurses are not always able to support women effectively and that they need further education and training to improve their knowledge, understanding and skills to be able to provide effective support.

The prototype resource pack, developed based on ideas generated from our second workshop, was taken out to clinicians in GP practices and to a women's community group for testing. The pack included guidance on screening for signs of domestic violence or abuse, screening questions and a prompt sheet that might help those experiencing DVA to disclose it to a professional.

Feedback from the prototype testing informed the further development of the screening questions and flowchart. Participants felt strongly that images, rather than a translated version of the prompt sheet would be more appropriate and acceptable to women of BME origin, and we believe that in order to do this justice we would need to co-design these with an illustrator as appropriate imagery is not readily available. This is how we now want the project to progress.



Screening for Domestic Abuse:
Guidance notes for staff

Signs and symptoms: Ensure that you are familiar with the signs and symptoms of Domestic Abuse.

DV algorithm: You may want to use the key question checklist to guide conversation and appropriate action.

Interpreters: Local interpreters might be known to the person disclosing (either as part of the same community or a family member

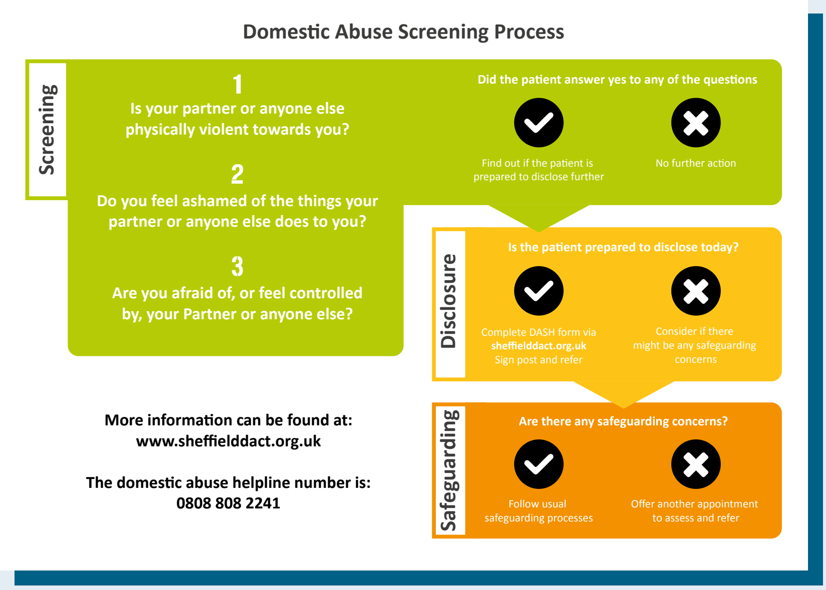
Telephone contact: Some patients might have 'family phones' or have to use phones on speaker, and therefore your call might not be confidential without you knowing.

Discrete cues/help cards: Your surgery might use a discreet cues scheme to signal a desire to disclose. Ensure that you are aware of what this scheme might be.

Accompanied person: A person who is always accompanied might be unable to disclose. Provision of a 'safe space' (e.g. a pretend personal examination) might enable confidintiality.

Discrete information: Consider discreet or disguised support information.

Follow up: If in doubt arrange a follow up in the most appropriate way. E.g. appointment / check / phone call.



Domestic Abuse Screening Process

Screening

1
Is your partner or anyone else physically violent towards you?

2
Do you feel ashamed of the things your partner or anyone else does to you?

3
Are you afraid of, or feel controlled by, your Partner or anyone else?

Did the patient answer yes to any of the questions
✓ Find out if the patient is prepared to disclose further
✗ No further action

Disclosure

Is the patient prepared to disclose today?
✓ Complete DASH form via **sheffielddact.org.uk** Sign post and refer
✗ Consider if there might be any safeguarding concerns

Safeguarding

Are there any safeguarding concerns?
✓ Follow usual safeguarding processes
✗ Offer another appointment to assess and refer

More information can be found at:
www.sheffielddact.org.uk

The domestic abuse helpline number is:
0808 808 2241

Content from the prototype resource pack developed in response to workshops.

Developing a treatment decision support tool for people with malignant pleural effusion

Context

Malignant pleural effusion (MPE) is a common, serious and often recurrent problem mainly seen in metastatic lung and breast cancer and malignant pleural mesothelioma. It causes acute shortness of breath and symptoms significantly impact on people's daily lives. A number of treatment options currently exist and choosing the most suitable depends on many factors. Also making treatment decisions can be challenging in pressured, time sensitive clinical environments.

The need to develop a decision support tool was identified through some initial qualitative work carried out by the three NHS sites. We were approached to assist the teams in developing a prototype tool using co-design methods.

Project aims

We set out to develop an initial prototype of a decision support tool for people with MPE, with three disparate pleural teams based in Manchester, Bristol and London, using participatory methods and a patient-led approach. We recognised the importance of engaging with service users to get a real idea of their lived experience to inspire a resource that would help guide the patient's decision-making at key points, to guide the patient pre consultation but also to help shared decision making between patient and clinician in consultation.

Our workshops were designed to:

- Enable patients, carers and clinicians from three UK NHS hospitals to take part in the co-design process,
- To garner their input on managing their MPE to shape the decision-making tool with first-hand accounts of living with the condition,
- To blend their experience with that of clinical practitioners to generate ideas of what an MPE decision-support tool might look like.

Meet the project lead

Dr Matthew Evison (MD MRCP) is a Consultant Chest Physician at Wythenshawe Hospital, Manchester University NHS Foundation Trust. He is the clinical lead for the CURE programme and Tobacco Addiction and a core member of the Specialist Lung Cancer and Pleural Teams. This role includes delivery of the CURE, RAPID and Lung Health Check programmes at Wythenshawe Hospital. He is the Director of the Lung Pathway Board and clinical lead for the CURE project for Greater Manchester Cancer.

He is a member of the British Thoracic Society Specialist Advisory Groups for Tobacco and Pleural and a member of the British Thoracic Oncology Group Steering Committee.

Matthew Evison -
Respiratory Consultant

The Approach

A total of 24 patients and carers and 12 clinicians from across three pleural teams – in Manchester, Bristol and London – were involved in the co-design workshops. We took a distributed approach to the workshops, running one in each city so that patients didn't have to travel far.

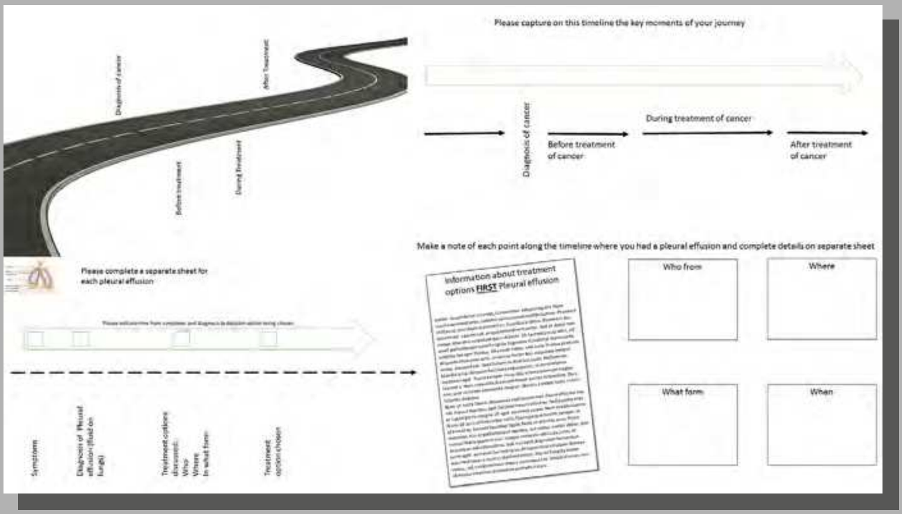
We tackled these by standardizing the format for workshop one. Each project lead was carefully briefed to deliver this in their area. A schedule of workshop activities and resources were provided to the project leads, along with Power Point instructions and a video provided by the TK2A team to assist the project leads in facilitating the workshop consistently across locations.

The second workshop took place to coincide with a national lung conference taking place in London that participants from each 3 sites were attending (the workshop actually took place at Guys and St Thomas's Hospital). Where each of the three project teams, including patients from the London team, could share findings from the distributed workshops. This workshop was designed and facilitated by the TK2A team and personas were used to ensure the patients voice remained central to the process as patient participants from Manchester and Bristol were unable to attend.

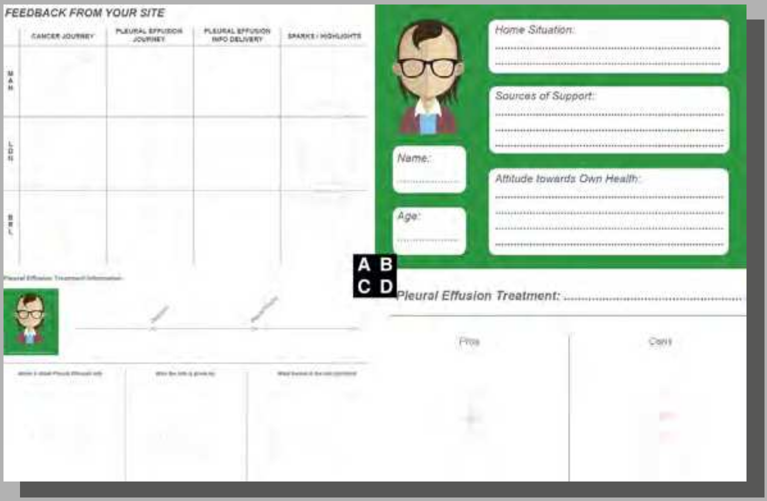
The workshops

Our first workshop, distributed across three cities, began with the 'how many uses'exercise to warm-up, and we followed with patient cancer journey mapping, timelines exploring their MPE management (the 1st and subsequent) and storyboards to explore when, where, what and by whom they received information regarding their MPE treatment.

Our second workshop – involving clinical professionals from all three sites and patients from the London only group – began with taboo, followed by a visual amalgamation of workshop one outputs from the three sites. Personas were then developed to ensure the patient voice remained central to the ideation process- this was particilarly important as patient representatives from Bristol and Manchester were not present. (the personas did not specifically represent the voices of the patients that weren't there) Pros and cons of treatment options related to each persona were explored, followed by ideation around what the tool should contain and look like.



Patient experience was gathered from three distributed workshops.



Workshop two: Personas helped ensure that the patient experience remained a driving force.

Conditions

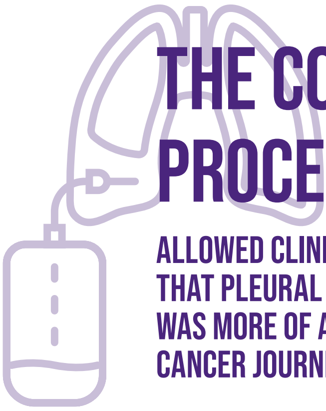
We tackled these by standardizing the format for workshop one. Each project lead was carefully briefed to deliver this in their area. This distributed approach to workshop one allowed the PL's to facilitate the workshop without the added pressure of having to plan and prepare it themselves therefore reducing the impact on precious clinical time. Engaging unwell patients locally was a priority, so our distributed model worked well. We would, however, consider shorter workshop sessions in the future.

What we discovered about method

The first workshop was key as using a distributed approach allowed involvement, despite geographical and workload challenges.

The second workshop, facilitated by the design team, allowed outputs from all three first workshops to be corroborated and agreed on. Personas were a useful tool in keeping the patient voice present.

Design input during workshop two also meant ideas could be visualised and explored in the moment, creating a really responsive ideation session.



THE CO-DESIGN PROCESS

ALLOWED CLINICIANS TO REALISE THAT PLEURAL EFFUSION TREATMENT WAS MORE OF A PRIORITY THAN THE CANCER JOURNEY.

Project outcomes

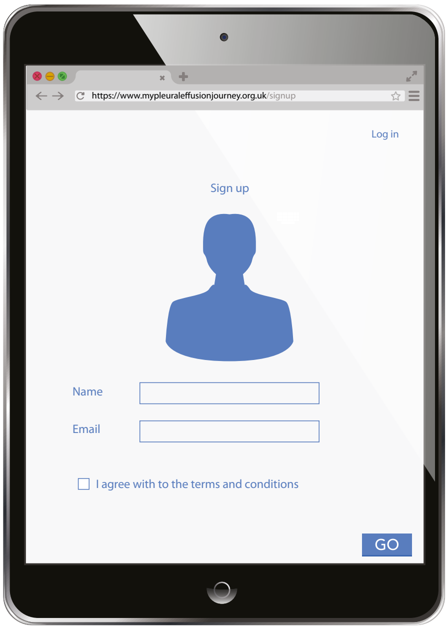
One of our key learnings from workshop one was that patients were more concerned about the management of the symptoms of their MPE rather than their overall cancer treatment which was a surprise to clinicians. We discovered that people with MPE preferred to receive information regarding treatment options in a consistent manner, preferably from a specialist pleural team. Participants implied that information would work best when offered in a variety of formats including verbal, written and animation, however, visual information was key to facilitating understanding of their MPE and therefore decision-making.

Workshop two revealed that the main influences on people's decisions about their MPE treatment were personal aspects of their lives, such as how active they are and what support is available at home. Perceptions of underlying health, and ability to endure treatments and pain also have an influence on treatment decisions.

These findings were used to develop a first prototype in the form of a video representation of an online decision support tool, that could be accessible via a tablet or computer prior to hospital appointments, but also during their appointment if required, with their clinician. Key content was developed by the pleural teams and this along with the prototype video representation was passed on to a software company who are developing an online version of the support tool prototype called 'mypleuraleffusionjourney'. Once completed, we hope funding will enable us to evaluate its performance in the clinical environment.

> This has been the best learning experience of my training to date.

Attending student nurse at the first workshop.


https://www.mypleuraleffusionjourney.org.uk/signup

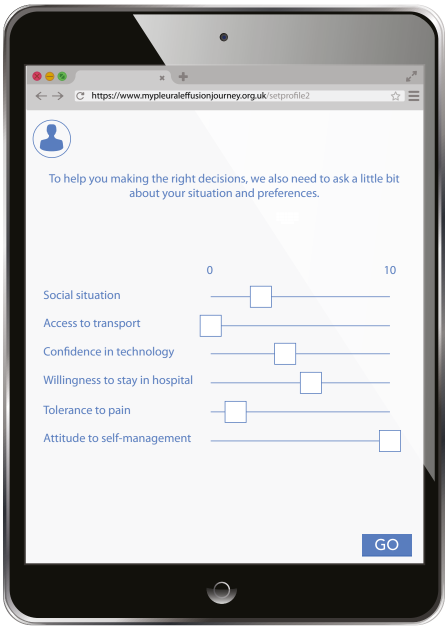
Log in

Sign up

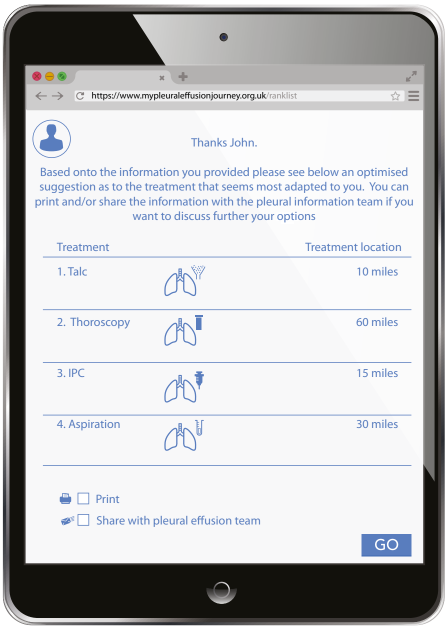
Name

Email

☐ I agree with to the terms and conditions


https://www.mypleuraleffusionjourney.org.uk/setprofile2

To help you making the right decisions, we also need to ask a little bit about your situation and preferences.

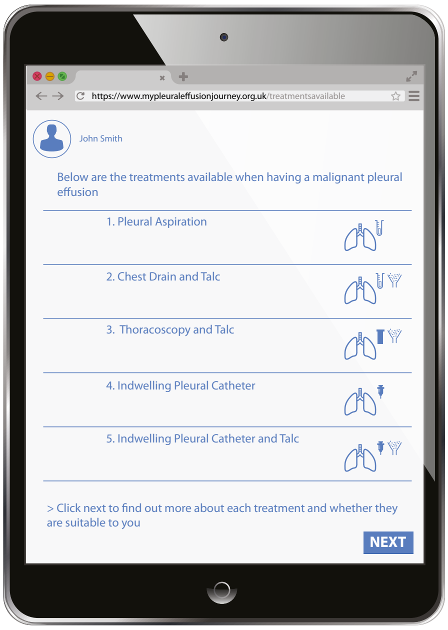

https://www.mypleuraleffusionjourney.org.uk/ranklist

Thanks John.

Based onto the information you provided please see below an optimised suggestion as to the treatment that seems most adapted to you. You can print and/or share the information with the pleural information team if you want to discuss further your options

Treatment	Treatment location
1. Talc	10 miles
2. Thoroscopy	60 miles
3. IPC	15 miles
4. Aspiration	30 miles

☐ Print
☐ Share with pleural effusion team


https://www.mypleuraleffusionjourney.org.uk/treatmentsavailable

John Smith

Below are the treatments available when having a malignant pleural effusion

1. Pleural Aspiration
2. Chest Drain and Talc
3. Thoracoscopy and Talc
4. Indwelling Pleural Catheter
5. Indwelling Pleural Catheter and Talc

> Click next to find out more about each treatment and whether they are suitable to you


https://www.mypleuraleffusionjourney.org.uk/findoutmore

> Talc treatment

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci tation ullamcorper suscipit lobortis

> IPC


https://www.mypleuraleffusionjourney.org.uk/yourpriorities

We want to help you define what your priorities are. This will be useful to think about these parameters (in grey in the table below) before your appointment with your pleural effusion specialist.

Pain	Minimising pain is a top priority to me	Pain is important but not a top priority to me	Amount of pain is not a major priority for me
Time spent in a hospital bed	Spending as little time as possible in hospital is a top priority for me	Time in hospital is important but not a top priority for me	I don't mind spending time in hospital to sort my fluid out
Number of future hospital visits	Having as few hospital visits as possible after my procedure is a top priority for me	Number of hospital visits is important but not a top priority for me	I don't mind future hospital visits after my treatment
Need for further procedures	Dealing with the fluid in one procedure is a top priority for me	Number of procedures needed to deal with this fluid is important but not a top priority for me	I don't mind multiple procedures to deal with the fluid
Travel	Undergoing treatment as close to my home as possible is a top priority for me	Distance to travel for my treatment is important but not a top priority for me	I dont mind travelling to specialist hospitals to find the right treatment for me
Aftercare	Minimising the amount of aftercare needed following my procedure is a top priority for me	The amount of aftercare needed is important but a not a top priority for me	I don't mind the need for aftercare at home, such as draining fluid fluid

☐ Print
☐ Save to your profile

> Click next to access the main menu and browse our website freely

Patients can use the tool before or during consultation to share their thoughts on treatment.

Reducing noise at night on a hospital ward

Meet the project lead

I work as a nurse researcher in a clinical academic post as Professor of Nursing (University of Huddersfield and Calderdale and Huddersfield NHS Trust). I started my career as a registered nurse and worked mainly in acute care settings. After completing my PhD in Australia I have enjoyed various roles as a clinical nurse specialist, researcher and lecturer. In my joint clinical academic role I lead a research programme 'Promoting person-centred care' and work on corresponding service development initiatives. Data from the Adult-In-Patient survey, distributed to over 70,000 participants, showed that night time noise levels in hospitals settings could be improved to promote much needed sleep and rest for patients. This seemed to be a rather neglected area of care which was the motivation for this programme of work. We pulled together a team of researchers, engineers, clinicians, support and estates staff, patients and carers to help us to develop our research ideas. Then experts from TK2A helped us to work with stakeholders to use our new knowledge to co-produce solutions to improve the patient in-hospital sleep experience.

Professor Felicity Astin -
Professor of Nursing at The University of Huddersfield and Calderdale and Huddersfield NHS Foundation Trust

F.Astin@hud.ac.uk
Felicity.Astin@cht.nhs.uk

Context

It is well documented that patients often experience poor quality of sleep whilst in hospital as a result of noise. Researchers at the University of Huddersfield and Huddersfield and Calderdale NHS Foundation Trust conducted research, funded by General Nursing Council of England and Wales, to objectively measure noise levels on the Medical Admissions Unit (MAU) and gather feedback from patients on their sleep experiences.

The results were similar to those reported in international studies; noise levels were above those recommended by the World Health Organisation. Feedback from 147 patients showed that noise levels at night reduced sleep quality and quality. As part of ongoing improvement work in the Trust the TK2A team were approached to use their expertise to co-design solutions to this common problem.

Project aims

We set out to agree some practical, sustainable ideas that might aid sleep in hospitals and to enable staff to take small steps that might make a big difference to patient comfort.

SLEEP
WELL

Our workshops were designed to:

- Understand the contributing factors to noise at night on the MAU from patient and staff perspectives,
- Explore ways in which noise could be reduced at night on the MAU,
- Co-design practical solutions to help reduce noise at night on the MAU.

The approach

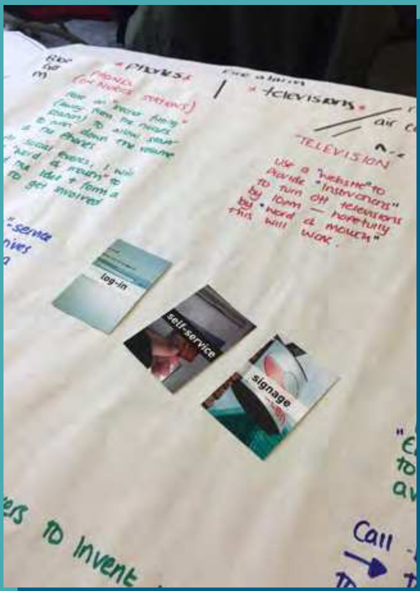
The workshops were held in the Learning Centre of Huddersfield Royal Infirmary. We recruited patients/carers with experience of an overnight hospital stay and clinical staff, including nursing staff, support workers and a porter.

Refreshments and lunch brought a relaxed friendly feel and patients were compensated for their time with shopping vouchers. Warm-up exercises, like 'taboo' and 'how many uses for' got our groups talking and interacting and then we carried out a range of exercises exploring noise and the experience of it. These activities included listening to noise and patient accounts of overnight stays, and to understand night time routines and then 'rating' the different sources of noise in order to gain a better understanding of their impact in the MAU context for our work.

We then looked at ways to counter noise, testing some options and using ideo cards to explore our ideas for minimising impact, with a view to taking the most viable and effective options into prototype.

Listening to common night time noise and patient quotes.

Patients identified numerous sources of disturbance.



Simulated scenarios helped us to explore solutions.

We rated noise according to volume and irritation caused.

Sleepwell

The workshops

After warm-up exercises, workshop one involved experiencing noise at night, so we could be sure all participants had an understanding of the kind of noise disruption patients might encounter at night on the ward. Home night time routines were explored. This helped participants understand how varied these were and therefore impossible to replicate in the hospital environment. Mapping a typical night shift allowed patients to see how busy staff were during the night and understand how much of the noise was unavoidable. The prioritisation exercise then allowed participants to rank which sources of noise were loudest and which noises caused the most irritation, and the themes were used to inform the second workshop activities.

During the second workshop the hospital's simulation suite was used to allow participants to test out solutions. These included experimenting with different types of ear plugs, noise cancelling head phones and white noise, in a mock clinical setting. Participants then came up with as many ideas as possible to reduce the impact of selected sources of noise. We then agreed the ideas we'd take forward to be prototyped and tested.

Workshops tested solutions for minimising sleep disruption.

What we discovered about method

We learnt a lot about encouraging the whole group to view experience from a number of perspectives. Using the recordings taken from the ward environment and playing 'noise bingo' was a powerful way of demonstrating the noise heard at night by patients trying to sleep. Clinical and support staff can often become desensitized to high levels of night-time noise which disturbs patients sleep. The workshops took people out of the clinical environment and through a range of activities participants were supported to reflect on the impact of night-time noise and factors that contribute to it which were often 'normalized'. This enabled participants to better understand the patient sleep experience and think about how they might contribute to changes in culture and practice.

It was a revelation to patients to see that the MAU was as busy with admissions and clinical duties during the night as during the day and therefore they could appreciate that a lot of the noise was unavoidable. This led to the title of the project changing from 'Noiseless' to 'Sleepwell' as the workshops identified that it was an impossible task to make the ward a noiseless environment. This enabled a useful shift in ambition and made the whole exercise much more realistic, yielding sustainable, practical ideas to prototype and test.

> 'The workshop activities were really powerful in allowing staff and patients to understand the contributing factors and impact of noise at night from each others perspective. They enabled staff and patient participants to gain a shared understanding of the issues to be tackled together. We would not have produced such contextually sensitive project outcomes without this.'

TK2A project team member.

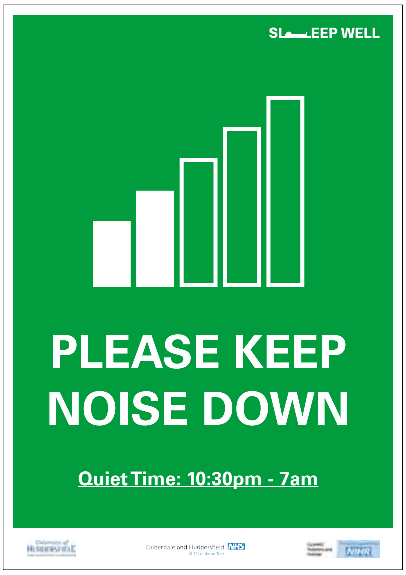
Project outcomes

Initial prototypes of a staff and patient pack included information on sleep hygiene, a set of ear plugs, an eye mask and adaptable magnetic signs – 'do not disturb' and 'wake me for tea/lunch'. For staff, the pack contained posters for the ward environment to encourage night staff to limit noise, bin soft closures, soft shoe covers and 'I am noisy' stickers for equipment that might be especially troublesome. These were taken to the hospital and in the ward staff room and dining room we gathered some initial feedback from staff, patients and relatives. Positive feedback about the resource was received, especially from staff and only minor changes were suggested and made before the packs, posters and stickers were taken on to the ward environment and given out and used during a night shift.

It became obvious during testing in the ward environment that the busy staff might struggle to engage with the prototypes, and responses from patients on the ward highlighted how their packs needed to be far simpler.

The prototypes were further refined and the final prototype packs include a stripped-down patient pack with ear plugs and eye mask only, with the 'do not disturb' message incorporated onto the eye mask. Poster and noise awareness resources were developed into a staff resource pack which would allow a clinical 'noise champion' to undertake regular noise audits and noise awareness activities.

The expertise of the TK2A team helped clinicians and academics to translate the research into improvement which led to several longer term impacts. A Band 5 Clinical Academic Nurse post was created at CHFT to continue the improvement work to optimise patients' sleep experiences. The post-holder, Gary Miles, was a finalist in the Student Nursing Times Awards 2019 'Post-Graduate Learner of the Year' in recognition of his contribution to improving patients' sleep experiences. A **case-study** that described the collaborative work was published by NHS Improvement and referenced in the **Adult In-Patient Survey** statistical release (2019). Patient and staff feedback about how to promote sleep has been collected from four other ward settings and context specific changes made to equipment and the built environment.



Reminders to staff prompted changes in behaviour.

Tools for patients to tell staff that they do not want to be disturbed.

The creative co-design approach to implementing weight management guidance in Doncaster

Context

The Chartered Society of Physiotherapy (CSP) recognise there are many challenges to implementing guidelines into practice. In attempt to address this problem they developed an online resource for members, **INSPIRE.** This resource collates guidelines from multiple sources into one place. This is a form of dissemination, making it easier for members to access guidelines and understand what guidelines may look like in practice. However, access and understanding does not necessarily translate into practice.

The CSP therefore approached the (TK2A) theme and Doncaster and Bassetlaw Teaching Hospitals (DBTH) to explore ways they could support members to effectively implement guidelines into practice.As Doncaster residents have the second highest rates of overweight and obesity in England it was decided to use NICE guidance [CG189] Obesity:identification, assessment and management to reflect local need.

Project aims

This project aimed to improve the health and wellbeing of individuals accessing DBTH's musculoskeletal (MSK) physiotherapy outpatient department, by implementing clinical guidelines relating to weight management.

We set out to:

- Understand key issues around consultation and weight management from patient and professional perspectives,
- Develop material and resources to both support patients and to help physiotherapists to start and sustain the conversation around weight management,
- To dovetail the NHS's 'making every contact count' campaign: healthy eating, physical activity, smoking cessation and alcohol and drugs, and
- To improve the CSP's knowledge and skills in implementation science.

Meet the project lead

I've worked at Doncaster & Bassetlaw Hospitals NHS Foundation Trust since 2004 after graduating with BSc (Hons) in Physiotherapy from Sheffield Hallam University. I specialised as a senior children's physiotherapist in 2006 working with children and young people with musculoskeletal, neuro-developmental, rheumatology and orthopaedic conditions. In 2017 I completed a HEE/NIHR ICA MSc in Clinical Research Methods at the University of Leeds inspired by my interest in promoting principles in paediatric musculoskeletal physiotherapy and public health, something I remain passionate about.

Jennifer Harris -
Senior Paediatric Physiotherapist

3/4

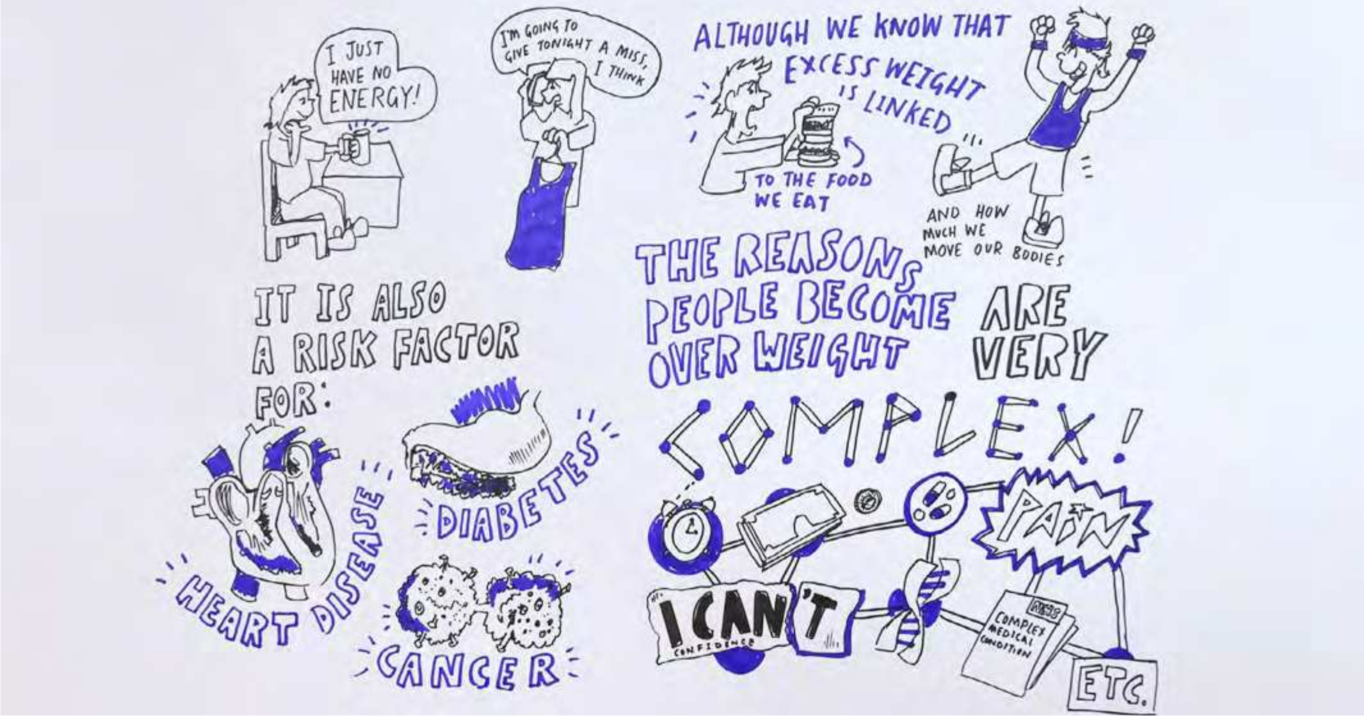
OF ADULTS IN DONCASTER ARE OVERWEIGHT

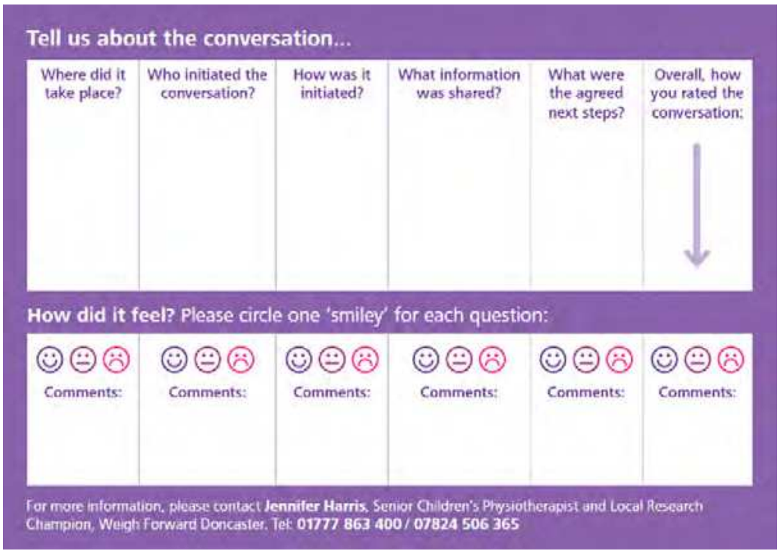
The approach

We began to gather research before our workshops began, so that we could take a diverse range of patient perspectives into our sessions. We did this using postcards which patients completed, describing the experience of any conversations they had with health care professionals about weight management, and how they felt about them.

Our two workshops used a range of exercises and engaged a broad stakeholder group comprising people with experience of the hospital bariatric service, people with experience of the MSK physiotherapy service, physiotherapists, managers and staff from Doncaster council public health department.

We employed a variety of tools and activities, including role play, journey mapping, prioritisation and voting to gather insight, assess value and design our prototype. Food and drink was served and patient participants were reimbursed for their time with shop vouchers.





Tell us about the conversation...

Where did it take place?	Who initiated the conversation?	How was it initiated?	What information was shared?	What were the agreed next steps?	Overall, how you rated the conversation:
					↓

How did it feel? Please circle one 'smiley' for each question:

☺ 😐 ☹ Comments:	☺ 😐 ☹ Comments:	☺ 😐 ☹ Comments:	☺ 😐 ☹ Comments:	☺ 😐 ☹ Comments:	☺ 😐 ☹ Comments:

For more information, please contact **Jennifer Harris**, Senior Children's Physiotherapist and Local Research Champion, Weigh Forward Doncaster. Tel: **01777 863 400 / 07824 506 365**

Patient experiences and feelings gave context to our workshops.

Way Forward

The workshops

We used postcards completed by current patients, and some face-to-face conversation to identify common themes running through experience and emotional response of 'weight management' consultations.

In workshop one, hosted at Doncaster Royal Infirmary we tried to make sense of this experience in more detail, using role play. That led to an exercise in journey mapping, resulting in a shared understanding of the themes and principles that underpin the successful implementation of weight management advice into outpatient physiotherapy consultations.

Workshop two used themes from workshop one to develop a sense of the priorities involved in effective guidance on weight management. Our priorities were developed further, using design sheets in the workshops and these ideas were taken forward to prototyping.

Subsequent prototyping sessions were held in the physiotherapy department to more easily involve the physiotherapy staff, and it was then that thinking really started to impact on the nature of the guidance.

What we discovered about method

Participation was key to the success of the project, Involving patients with real experience of the weight management pathway allowed myths to be busted. People described a very human range of responses to weight management conversations, but all agreed that someone had to ask the question first and plant the seed. Staff presumed that patients would be offended, but quite often this behaviour was a mask for their own lack of confidence in intitatng difficult conversations, we were able through the design process deliver resources that supported this and provide resources that fitted into the routine working practices of the clinicians.

> I've never been involved in a project like 'Way Forward' and I'm sure I was a bit of a pain at the beginning with all my questions and queries, thanks to everyone for being so helpful and patient. I've really enjoyed working with all the great staff and fellow patients who have come up with the ideas and worked hard to get our project up and running. It's given me the confidence to join other groups and projects within the NHS, hopefully I can be a help to them with their projects too.

Alan – patient participant.

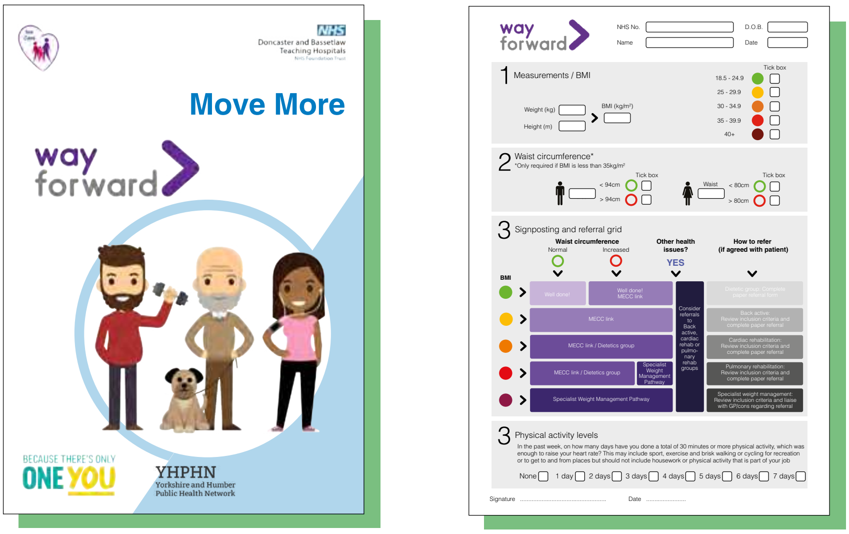
Project outcomes

We immediately trialled one workshop suggestion, weighing and measuring in the MSK outpatient setting. This was a success, with a therapy assistant carrying out the check. The barrier to implementing this fully came from staff resource. However, we have begun to explore the feasibility of implementing electronic weighing and measuring machines into the departments.

We also identified that focusing on weight management alone was inadequate. The project name and branding changed from 'Weigh' to 'Way' Forward to incorporate the four interrelated elements of the NHS 'making every contact count' campaign: healthy eating, physical activity, smoking cessation and alcohol and drugs. Checking in for their appointments, patients can tick a box telling us if they would like to discuss these areas.

We produced a range of materials to support the weight management journey, including four patient leaflets to cover our four interrelated elements and a credit-card sized BMI record card with a risk category chart. For clinicians, we developed a prompt card allowing quick and easy assessment of risk, appropriate signposting to local services, sensitive and appropriate conversation starters and recording of actions and a guide to motivational interviewing and neurolinguistics programming for 'difficult conversations'. The project report can be found **here.**

An animation to represent participants' perceptions of an effective healthy-living service to share with commissioners and decision-makers is available **here.**



way forward

NHS No. ☐ D.O.B. ☐
Name ☐ Date ☐

1 Measurements / BMI

Weight (kg) ☐ > BMI (kg/m²) ☐
Height (m) ☐

		Tick box
18.5 - 24.9	🟢	☐
25 - 29.9	🟡	☐
30 - 34.9	🟠	☐
35 - 39.9	🔴	☐
40+	🟤	☐

2 Waist circumference*
*Only required if BMI is less than 35kg/m²

			Tick box
☐	< 94cm	○	☐
	> 94cm	○	☐
Waist ☐	< 80cm	○	☐
	> 80cm	○	☐

3 Signposting and referral grid

BMI	Waist circumference Normal	Waist circumference Increased	Other health issues? YES	How to refer (if agreed with patient)
🟢	Well done!	Well done! MECC link	Consider referrals to Back active, cardiac rehab or pulmo-nary rehab groups	Dietetic group: Complete paper referral form
🟡	MECC link			Back active: Review inclusion criteria and complete paper referral
🟠	MECC link / Dietetics group			Cardiac rehabilitation: Review inclusion criteria and complete paper referral
🔴	MECC link / Dietetics group	Specialist Weight Management Pathway		Pulmonary rehabilitation: Review inclusion criteria and complete paper referral
🟤	Specialist Weight Management Pathway			Specialist weight management: Review inclusion criteria and liaise with GP/cons regarding referral

3 Physical activity levels

In the past week, on how many days have you done a total of 30 minutes or more physical activity, which was enough to raise your heart rate? This may include sport, exercise and brisk walking or cycling for recreation or to get to and from places but should not include housework or physical activity that is part of your job

None ☐ 1 day ☐ 2 days ☐ 3 days ☐ 4 days ☐ 5 days ☐ 6 days ☐ 7 days ☐

Signature .... Date ....

We revised our branding, changing from 'weigh' to 'way' in response to workshop outcomes.

Patient leaflets focus on the four elements of 'making every contact count'.

Neutropenic Sepsis

Meet the project lead

Clare Warnock is the senior project nurse at Weston Park Hospital (WPH), the cancer centre for non-surgical treatments for South Yorkshire. She has worked in oncology for over 30 years in London and Sheffield in a variety of clinical settings and roles, moving into practice development in 1999.

Clare has been involved in a diverse range of service evaluation, audit and research projects with a focus on clinical practice and improving patient care. The project team is collaboration between WPH and University of Sheffield. The WPH team (pictured opposite) includes (from left to right) Rachel Mead, Martina Page and Clare Warnock.

Clare Warnock -
Senior Project Nurse

clare.warnock@sth.nhs.uk

Helping patients self-detect symptoms of Neutropenic Sepsis

Context

Neutropenic sepsis is a life-threatening complication that can develop following the treatment of a cancer. The timely detection of the condition relies on patients checking and self-assessing a range of symptoms they might have on a daily basis, such as a rise of temperature or increased tiredness, knowing what to look out for and reporting anything significant them to their health professional.

The core team – composed of nurses – developed a range of ideas around key moments in the patients' journey following some preliminary research, conducted prior to approaching the TK2A team. This helped to define symptoms to be aware of and key moments when patients might be most susceptible to those symptoms and should be prompted to check.

Project aims

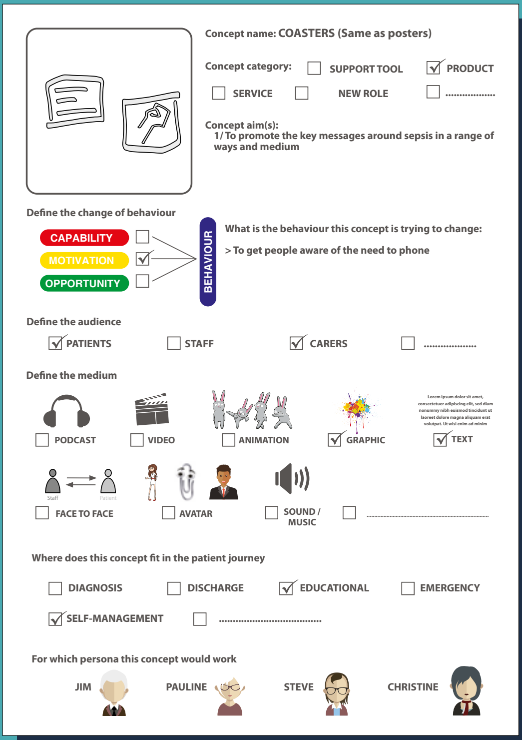
The aim was to bridge the gap between guidelines, practice, actions and outcomes through investigating further the barriers identified by their recent research, and through exploring new and creative approaches to knowledge transfer.

In this project we wanted to:

- Explore the different factors that might encourage end-users to adopt a self-management behaviour,
- Produce a range of resources that would be tailored to the individual patient's attitudes,
- Find ways to support clinical staff to deliver consistent high quality information and care.

The approach

Personas were used to represent the patients' experience after workshop one and during the entire duration of the project. Throughout the workshops the facilitators used 2D visuals (Figure 2) to explore the three aspects an 'integration prototype' must cover (i.e. 'role', 'look and feel', 'implementation'). However, the participants often developed new ideas without really understanding the reason(s) behind each idea. Facilitators therefore used a series of tools and frameworks (such as 'COM-B'), to better understand the core message(s) and purpose around each idea. By the end of workshop 4, some ideas were generated and TK2A used the diamond technique to help the core team deciding what was worth prototyping and testing. This activity appeared to be efficient since the core team realised that some ideas could be combined.



Concept name: COASTERS (Same as posters)

Concept category: ☐ SUPPORT TOOL ☑ PRODUCT ☐ SERVICE ☐ NEW ROLE ☐ ....

Concept aim(s):
1/ To promote the key messages around sepsis in a range of ways and medium

Define the change of behaviour

☐ CAPABILITY
☑ MOTIVATION
☐ OPPORTUNITY

BEHAVIOUR

What is the behaviour this concept is trying to change:
> To get people aware of the need to phone

Define the audience

☑ PATIENTS ☐ STAFF ☑ CARERS ☐ ....

Define the medium

☐ PODCAST ☐ VIDEO ☐ ANIMATION ☑ GRAPHIC ☑ TEXT

☐ FACE TO FACE ☐ AVATAR ☐ SOUND / MUSIC ☐ ....

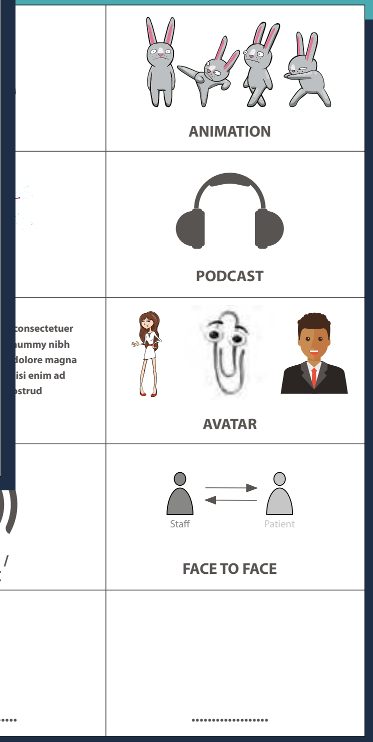
Where does this concept fit in the patient journey

☐ DIAGNOSIS ☐ DISCHARGE ☑ EDUCATIONAL ☐ EMERGENCY
☑ SELF-MANAGEMENT ☐ ....

For which persona this concept would work

JIM PAULINE STEVE CHRISTINE

Figure 2 (Left) - *Creating a template based on COM-B among other to deconstruct ideas and identify the reason(s) for developing / implementing (or not) such idea.*



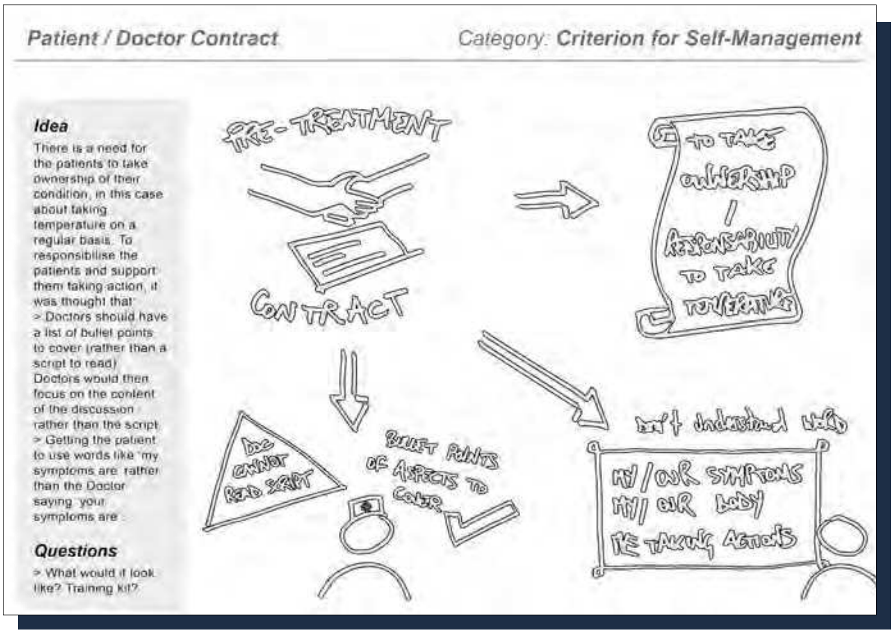
Right - *Using visual cards as prompt to encourage participants to think about ways to develop each idea generated.*

The workshops

TK2A facilitated a series of five workshops. Two patients diagnosed with neutropenic sepsis were involved in the first workshop along with a core team of four nurses specialised in cancer services, who were the only participants involved in the following workshops.

The first workshop triggered further ideas to implement among the nurses, and TK2A role was to structure these ideas and develop prototypes to test in context, with the future end-users.

Participants (nurses) were generating concepts brainstorming/ideation activities, the idea being that the designer would create a prototype(s) by the end of the project.



Patient / Doctor Contract Category: **Criterion for Self-Management**

Idea

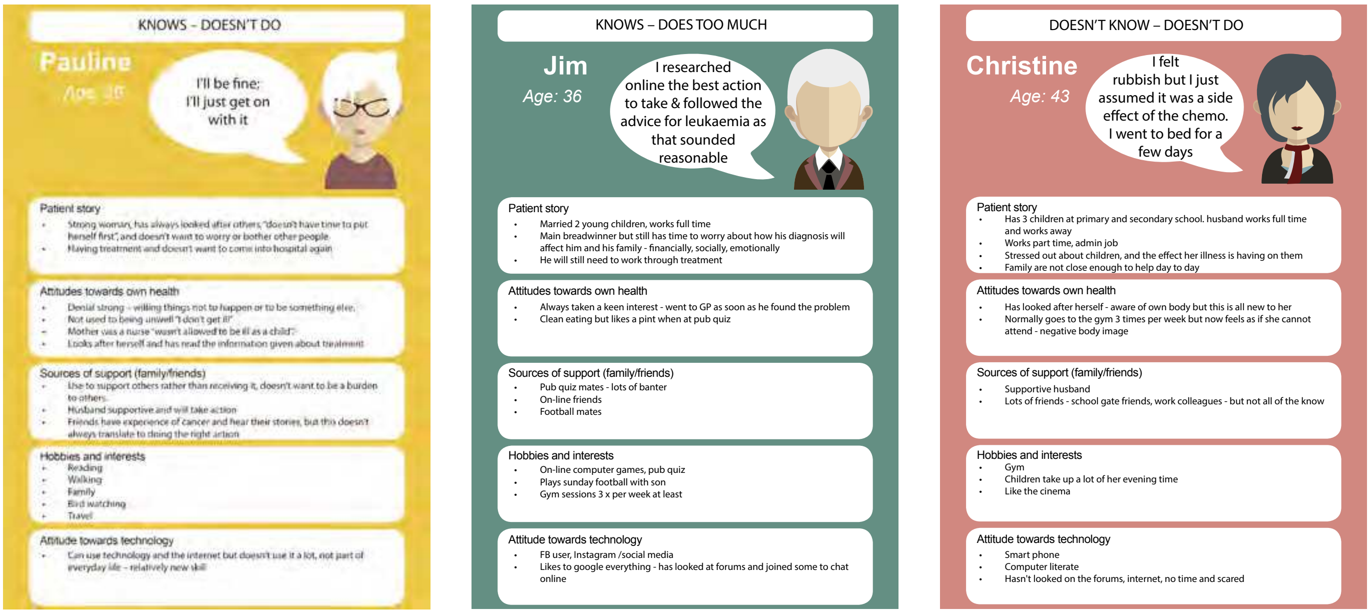
There is a need for the patients to take ownership of their condition, in this case about taking temperature on a regular basis. To responsibilise the patients and support them taking action, it was thought that:
> Doctors should have a list of bullet points to cover (rather than a script to read) Doctors would then focus on the content of the discussion rather than the script
> Getting the patient to use words like 'my symptoms are' rather than the Doctor saying 'your symptoms are'

Questions

> What would it look like? Training kit?

Neutropenic Sepsis

Figure 3 - *A visual representation of the service a user living with neutropenic sepsis goes through.*



KNOWS - DOESN'T DO

Pauline

Age: [illegible]

I'll be fine;
I'll just get on
with it

Patient story
- Strong woman, has always looked after others "doesn't have time to put herself first", and doesn't want to worry or bother other people
- Having treatment and doesn't want to come into hospital again

Attitudes towards own health
- Denial strong - willing things not to happen or to be something else.
- Not used to being unwell "I don't get ill"
- Mother was a nurse "wasn't allowed to be ill as a child".
- Looks after herself and has read the information given about treatment

Sources of support (family/friends)
- Use to support others rather than receiving it, doesn't want to be a burden to others.
- Husband supportive and will take action
- Friends have experience of cancer and hear their stories, but this doesn't always translate to doing the right action

Hobbies and interests
- Reading
- Walking
- Family
- Bird watching
- Travel

Attitude towards technology
- Can use technology and the internet but doesn't use it a lot, not part of everyday life - relatively new skill

KNOWS – DOES TOO MUCH

Jim

Age: 36

I researched
online the best action
to take & followed the
advice for leukaemia as
that sounded
reasonable

Patient story
- Married 2 young children, works full time
- Main breadwinner but still has time to worry about how his diagnosis will affect him and his family - financially, socially, emotionally
- He will still need to work through treatment

Attitudes towards own health
- Always taken a keen interest - went to GP as soon as he found the problem
- Clean eating but likes a pint when at pub quiz

Sources of support (family/friends)
- Pub quiz mates - lots of banter
- On-line friends
- Football mates

Hobbies and interests
- On-line computer games, pub quiz
- Plays sunday football with son
- Gym sessions 3 x per week at least

Attitude towards technology
- FB user, Instagram /social media
- Likes to google everything - has looked at forums and joined some to chat online

DOESN'T KNOW – DOESN'T DO

Christine

Age: 43

I felt
rubbish but I just
assumed it was a side
effect of the chemo.
I went to bed for a
few days

Patient story
- Has 3 children at primary and secondary school. husband works full time and works away
- Works part time, admin job
- Stressed out about children, and the effect her illness is having on them
- Family are not close enough to help day to day

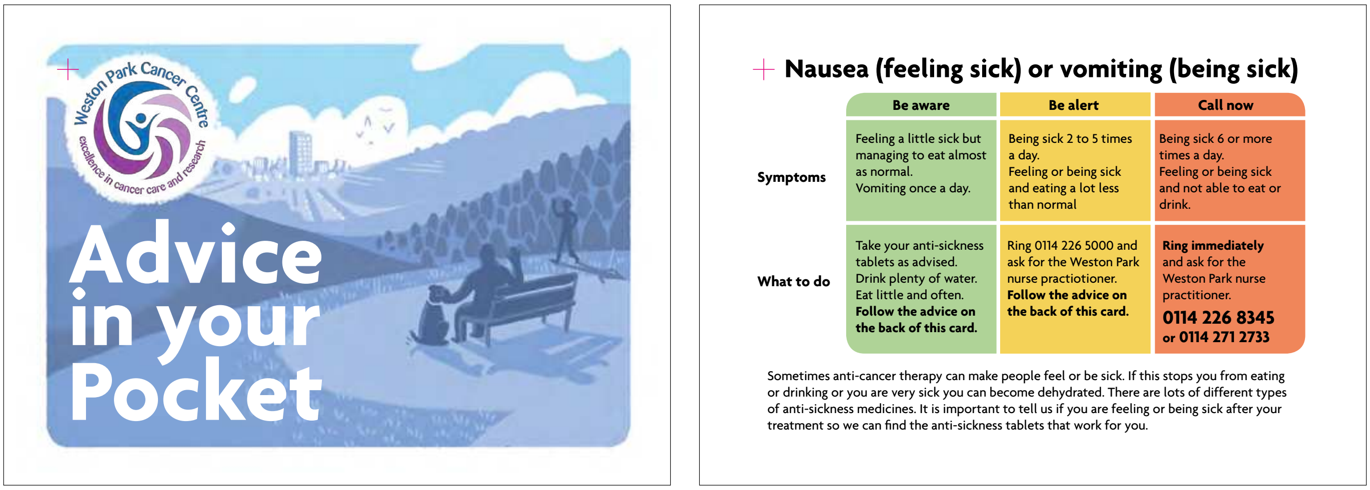
Attitudes towards own health
- Has looked after herself - aware of own body but this is all new to her
- Normally goes to the gym 3 times per week but now feels as if she cannot attend - negative body image

Sources of support (family/friends)
- Supportive husband
- Lots of friends - school gate friends, work colleagues - but not all of the know

Hobbies and interests
- Gym
- Children take up a lot of her evening time
- Like the cinema

Attitude towards technology
- Smart phone
- Computer literate
- Hasn't looked on the forums, internet, no time and scared

Figure 4 - *3 of the 4 personas were representative of the typical behaviour of someone living with neutropenic sepsis.*



Nausea (feeling sick) or vomiting (being sick)

	Be aware	Be alert	Call now
Symptoms	Feeling a little sick but managing to eat almost as normal. Vomiting once a day.	Being sick 2 to 5 times a day. Feeling or being sick and eating a lot less than normal	Being sick 6 or more times a day. Feeling or being sick and not able to eat or drink.
What to do	Take your anti-sickness tablets as advised. Drink plenty of water. Eat little and often. **Follow the advice on the back of this card.**	Ring 0114 226 5000 and ask for the Weston Park nurse practiotioner. **Follow the advice on the back of this card.**	**Ring immediately** and ask for the Weston Park nurse practitioner. **0114 226 8345** **or 0114 271 2733**

Sometimes anti-cancer therapy can make people feel or be sick. If this stops you from eating or drinking or you are very sick you can become dehydrated. There are lots of different types of anti-sickness medicines. It is important to tell us if you are feeling or being sick after your treatment so we can find the anti-sickness tablets that work for you.

A selection of the final prototype (i.e. set of cards) that were tested in context, in the ward.

Insights

Through using a series of tools and frameworks, it was realised that some ideas (e.g. 'welcoming chemo box') was not created for clinical reasons, but more as an empathic tool or a 'nice gesture' given by the staff to patients when diagnosed with neutropenic sepsis. Our team had to deconstruct each idea generated by the participants to better understand the meaning behind them. Un-prototyping the prototypes was becoming a way to develop understanding of the requirements and problem(s) to build an integration prototype(s).

This approach and the methods used allowed recognising that different profiles require different types of support and therefore tailored messages. An idea not novel in behaviour change but very different from the 'one size fits all' approach to patient information leaflets that is common across the National Health Service.

> The TK2A team have helped us to develop and improve the way patient information is provided to our patients and have helped to design the content of the new patient education that is given. This has meant that patients are being given consistent and clear information about the complex treatment they are undergoing. The GRIP project has also been pivotal in collecting patient feedback on their experiences of this patient information project which has helped us to evaluate and modify the service effectively. I would like to thank the TK2A team for their hard work and commitment to this project as it would have been challenging without their input.

Hannah Howard – senior sister at the chemotherapy unit at Weston Park Hospital.

Project outcomes

The first workshop looked at capturing the patients' experience as well as a basic representation of the health services around neutropenic sepsis (Figure 3). This allowed identifying four main types of characters in self-management around neutropenic sepsis (Figure 4):

1. knows what they are meant to be doing but do too much;
2. knows but doesn't do;
3. knows but can't do;
4. doesn't know and doesn't do.

Numerous ideas were developed to improve patient information and it was decided to focus on developing one product within the time frame of the project; easily accessible, easy to read focused information. As part of the project, patients attending for chemotherapy had been consulted on the information provided by the hospital and concept had been popular with them and the staff who attended the workshop. This idea was prototyped and evaluated in context, by 1-to-1 and small group sessions with patients attending the chemotherapy day unit by a member of the project team. This iterative process helped to identify the preferred content, design, size and format for the information postcards. Once this was agreed a graphic designer was then used to develop the final product design. A physical prototype has been developed and a funding application is being submitted to the local cancer charity to purchase and evaluate their use in practice.

Full report can be found **here.**

The team of nurses disseminating the project findings and outcomes.

Meet the project lead

My nursing background is in cardiology and cardiac rehabilitation and I have many years of experience conducting and applying research into healthcare, as well as previous posts focusing on research capacity building in nurses, midwives and allied health professionals.

My research has mainly focused on care for adults and older people, with particular research interest in patient experience studies, especially in public health, health inequalities and healthcare access. My methodological expertise lies in qualitative research, in standalone and mixed method studies. In this project, I was eager to address the absence of any insight into the experience of fuel poverty and health in the AWLD community, so that we can improve access to support and advice.

Angela Tod -
Professor of Older People and Care in the School of Nursing and Midwifery at The University of Sheffield

Being Warm Being Happy - the extent of fuel poverty in the UK

Context

There is a large body of evidence on the extent of fuel poverty (FP) in the UK. Research in this field is motivated often by an even larger body of evidence that living in a cold home is associated with premature death and a range of mental and physical illnesses.

But there has been very little research into FP and its effects in the disabled population, and virtually none for people with a learning disability, despite the fact that the learning disabled are at a greater risk of material deprivation. To date, no research has examined the experience of FP amongst Adults With Learning Difficulties (AWLD). The Being Warm Being Happy (BWBH) project aimed to conduct a robust and rigorous mixed method study to address that gap. The TK2A team ran the design component and facilitated the real time synthesis of knowledge from the study into contextually sensitive outputs.

Project aims

The aim of the design project was to bring together different forms of knowledge to develop pragmatic solutions to support AWLD to keep their homes warm. The solutions were intended to improve on the broader physical and mental health of AWLC, and ultimately, to feel happier. The TK2A team worked with data from the wider BWBH project including interview data, temperature data and data from a national survey.

We wanted to:

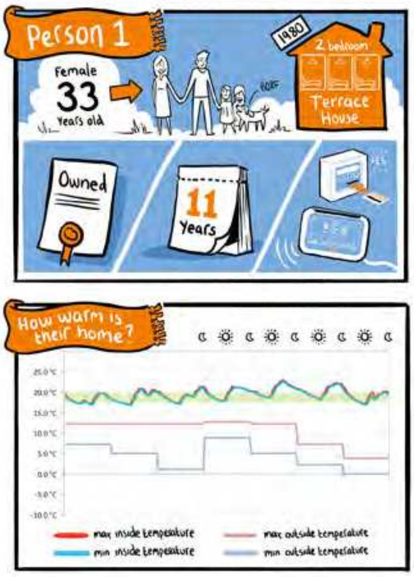
- Use this blend of existing data to develop an understanding of key themes,
- Explore the lived experience of FP amongst AWLD, and
- Generate a report that can be shared and used to influence action in support of this vulnerable group.

The approach

BWBH was a participatory co-researcher project. University academics and AWLD worked in partnership with Speakup Advocacy, a voluntary sector organisation based in Rotherham, whose co-researchers were involved in all stages of the project. The involvement of design started when the BWBH team were analysing the interviews. The academics and three co-researchers worked with designers to develop cards that represented the themes from the analysis.

In preparation for the workshops we conducted a range of creative co-design activities with the BWBH team. We used the BWBH data as a basis for personas developed by participants, using visualisations of the demographic data and quotes from interview. Research themes were then linked to personas, so we could explore the likely impact of challenging scenarios on a range of AWLD, and understand the factors that might stop them from keeping their home warm. Storyboards were then used to develop good and bad stories based on some challenging scenarios specific to each persona. Co-researchers were paid through the self advocacy agency and had travel costs reimbursed.

We captured key themes to prompt conversations in workshop one.

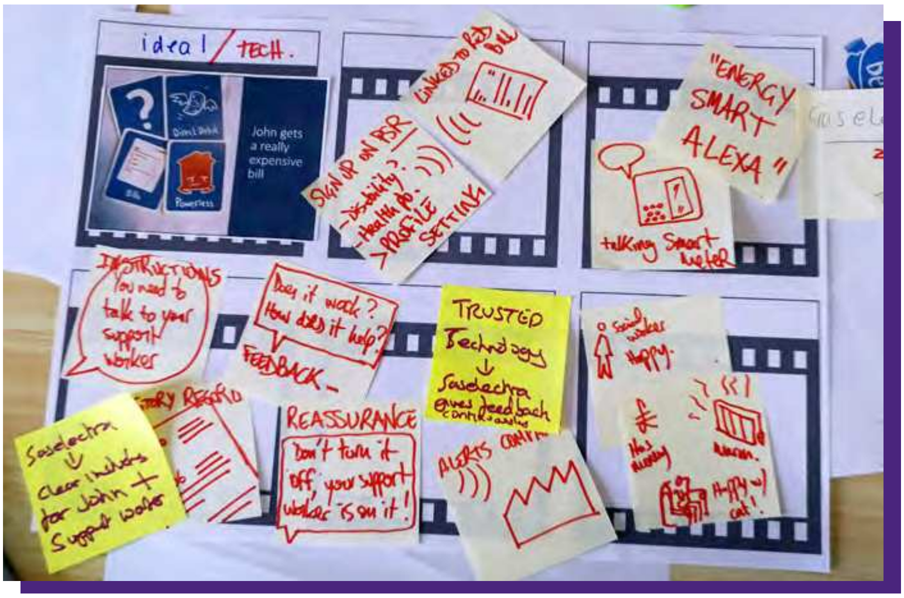


Existing data from the research was reported in Workshop one throughou using pen portraits.

The workshops

The project comprised two half-day workshops which in total engaged 17 participants – co-researchers from Speakup self-advocacy, fuel poverty researchers, and experts from national energy charities. This diverse group of stakeholders included people from policy, practice, service provision, the voluntary sector and commissioning organisations (health, housing local authority and energy) as well as adults with learning difficulties and people from related advocacy groups. Our first workshop used the 'how many uses' activity to warm up, and then worked to develop the anonymised persona, creating new characters that would ensure we had a diverse range of adults and scenarios to play with. We used the 'theme cards' to identify challenges for these characters and shared back all the challenges into a visual framework in plenary.

Our second half-day workshop recapped workshop one and the individual themes and visual framework that emerged. We also identified practical challenges around energy bills and information resources that we were going to explore in parallel with graphic design students from Sheffield Hallam University.



What we discovered about method

The BWBH project enabled us to develop creative co-production methods that were acceptable and accessible to AWLD, as well as wider stakeholder groups. The project demonstrates the ability of these methods to cut across different populations and create a non-hierarchical, democratic environment that is productive as well as enjoyable.

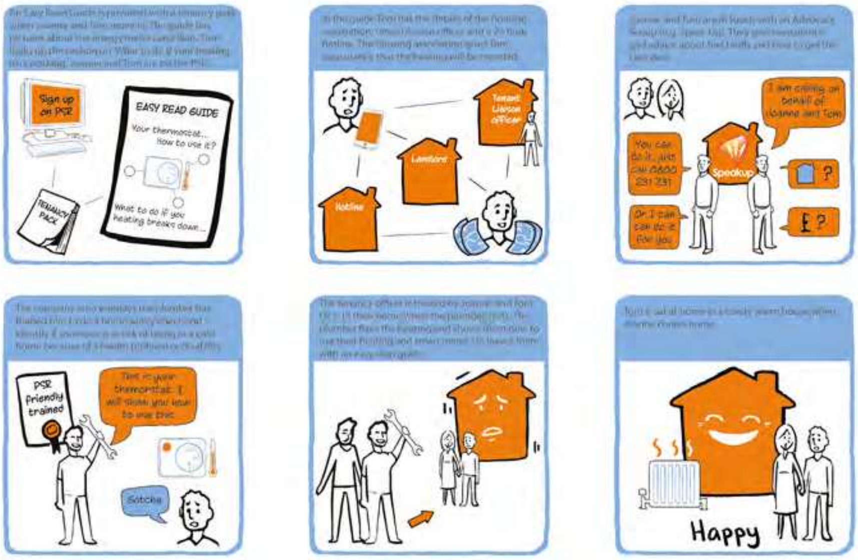
The project outputs were truly grounded in the experiences of AWLD and enabled genuine participation and involvement of AWLD throughout, in turn ensuring that solutions serve needs and will have a positive impact.

A range of methods ensured everyone could contribute to the groups.

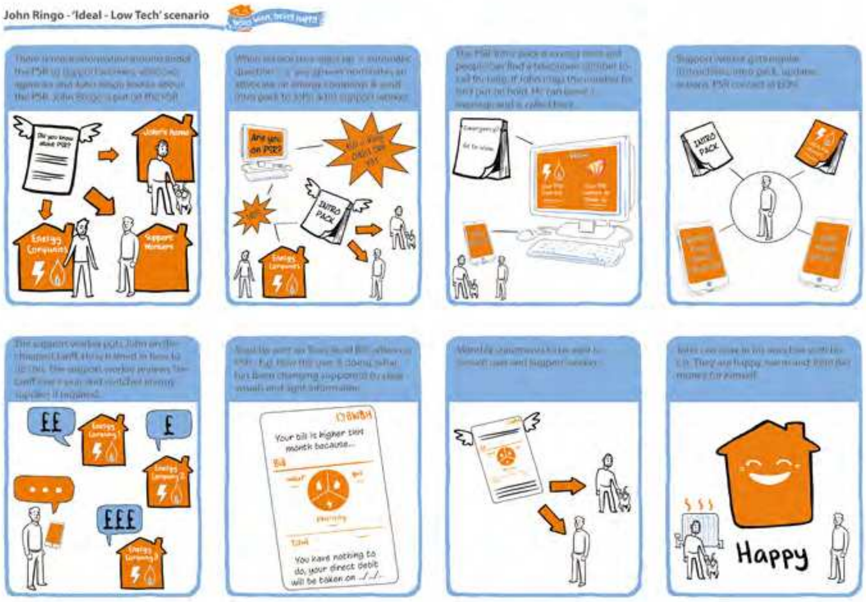
Project outcomes

The themes intervention delivered a range of pragmatic suggestions that translated the knowledge from the survey, interviews and other research into practical ideas that could be used to create a support resource for AWLD, helping them to avoid the impact of fuel poverty and manage a balanced energy use that will help to keep them happy and well.

Strong solutions were proposed by the graphic design students from Sheffield Hallam University, setting out a range of potential supports in response to the challenges set by the co-researchers. These included design improvements to energy bills and smart meter interfaces and these are being explored further through different funding proposals.



Solution based stories looking at how to fight fuel poverty for the personas generated in workshop one were then co-brainstormed in workshop two using a 6 frame storyboard.



Storyboards captured scenarios and solutions.

We have been delighted at the interest in this project and the reception it has received. The Speak Up co-researchers on the BWBH project were presented with a Celebrating Inclusivity Award by National Energy Action (NEA) at their annual conference on 17th September 2018, and the project was also presented at the Fuel Poverty Research Network, 8-9th of November 2018.

The final report is available **here.** Interim findings are present on the Being Warm Bring Happy **website.**

Improving educational resources for people with lower back pain

Context

Back pain is the largest cause of disability in the world and for some people can become chronic, with significant personal and societal costs. Chronic lower back pain is caused by a complex interaction of biological, psychological and social factors that are challenging to manage.

NICE recommends that people with back pain are provided with advice and information tailored to their needs and capabilities. A well designed and executed education programme that reframes the problem, recognising it as complex and multifactorial may help people with back pain accept and engage with positive self-management strategies. This project was part of a Sheffield Teaching Hospitals Charitable Trust and Yorkshire and Humberside's Collaboration for Leadership in Applied Health Research and Care (CLAHRC) 'Getting Research into Practice' funding and the TK2A team were involved from its inception.

Project aims

We set out to co-design an educational resource for people with lower back pain that would specifically facilitate positive thinking and behaviours to support their physiotherapy management.

We developed workshops that would:

- Understand how back pain impacts on a person's life,
- Understand where people get information and support from and make sense of what will help,
- Explore the differences and similarities between healthcare professional and patient priorities around information and support, and
- Generate ideas on what new lower back pain support resources might look like, taking the strongest four ideas into prototype for testing.

Meet the project lead

I have been a physiotherapist for over 20 years and currently work as an enhanced role physiotherapist for Physioworks, a community based specialist musculoskeletal service. My role is diverse, with clinical, leadership and service improvement responsibilities. My area of specialist interest is the management of people with long term back problems. Working with CLAHRC YH on the talkback project has been fantastic experience and I am very proud of the resources we developed and the positive impact they are having on our patients.

Richard Webber -
Enhanced Role Physiotherapist, Physioworks Sheffield Teaching Hospitals

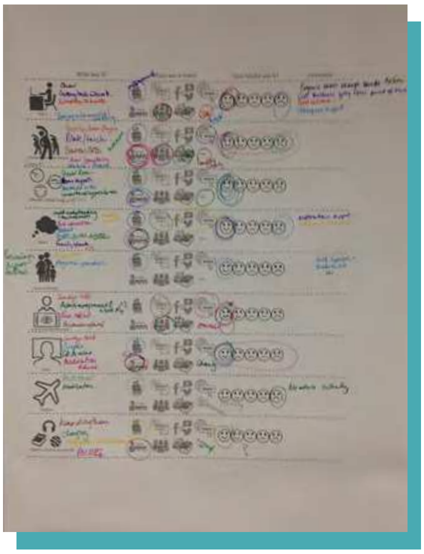
The approach

The workshops were held at a local leisure centre, where some of the physiotherapy clinics and education and exercise groups are held. The venue had good public transport links, to make attendance as easy as possible.

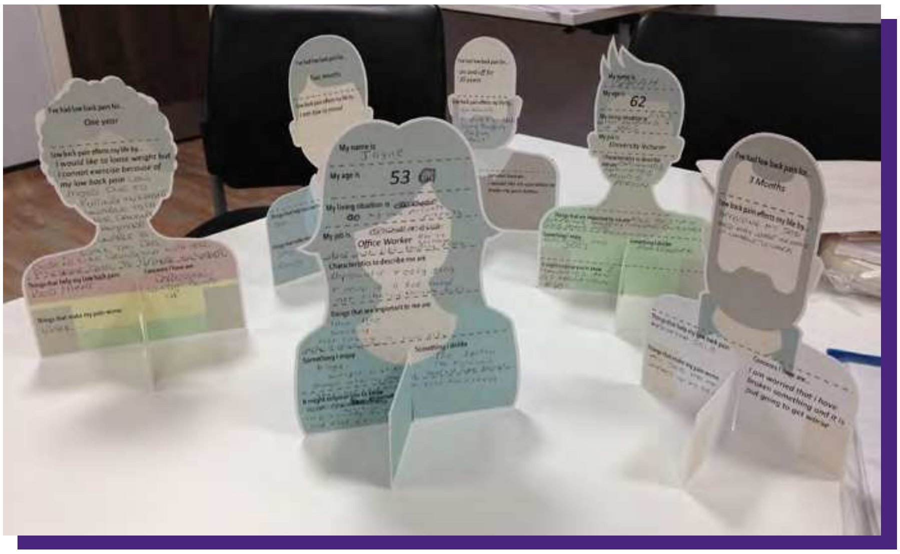
In order to minimise disruption to staff diaries and patient appointments we arranged workshops well in advance and they were timed to coincide with staff training and development.

At the workshops, lunch and refreshments were provided and patients were compensated for the three hours of time they gave to each workshop, with shop vouchers. Subsequent prototype develop sessions and testing were held at the same venue and welcomed a selection of staff and patients who had attended the workshops.

We started by getting participants to start to think creatively.



we explored what educational resources participants currently accessed.



Personas enabled a range of patient voices.

Talkback

Props and moodboards got patients and professionals exploring solutions together.

The workshops

Both workshops were hosted at the same venue to help make participation easier, and lunch and refreshments encouraged a relaxed, social feel. Each workshop engaged patients with experience of lower back pain, physiotherapists and a GP. A total of 9 people with LBP (patients) and 5 physiotherapists and 1 GP.

We began with activities in workshop one that would get people talking with each other, including drawing the person opposite and discovering three things about them, including a surprise. The workshop went on to mapping out experience and emotional response. Participants mapped out how their LBP impacted on different aspects of their lives (such as sleep, work, hobbies etc) and the clinicians mapped out what a typical consultation included. Current information sources were explored and ranked and Personas were then developed to ensure a wide range of differing patient needs would be considered during the next ideation phase. Our second workshop, which involved the first stages of co-designing the support resource, used activities such as 'how many uses', props and moodboards which both staff and patients populated and ideo cards that got everyone thinking openly. Further idea generation was carried out using the concept of a 'magic box'. We concluded by considering our top three ideas in more detail using story boards and role play.

What we discovered about method

The methods, which included lots of visual activities, allowed everyone to engage, including one participant with some verbal communication problems, providing insights that we might otherwise have missed.

One of the key challenges was freeing up clinical staff to attend workshops. This was difficult and retention of consistent staff throughout the process was challenging. However, involving the staff that would be delivering the new education session during prototyping proved invaluable and empowering for them.

Their enthusiasm for the developed session and accompanying resources has meant other staff are now keen to hear about the project and this will be invaluable in the implementation stage.

> Having just completed physiotherapy for lower back pain I decided to respond to the leaflet I saw advertising the workshops. It was an extremely enjoyable and enlightening experience, meeting people who had something in common, and the interaction with clinicians and working together improve the overall experience.
>
> We brainstormed, roleplayed and listened to experiences to create the prototype booklet, 'Talkback'. For me it was an excellent experience and I made a very good friend and in some way that is what the workshops are about – helping and mentoring each other. If you don't get involved then you don't know what you have to give or to learn.

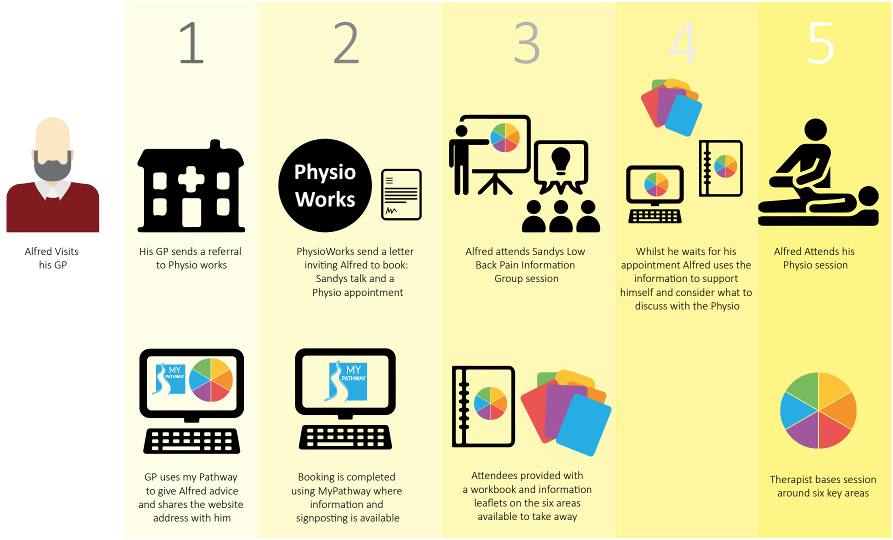
Shirley – patient participant.

Project outcomes

The themes from each of the workshops were used to inform the development of the talkback resource. Key themes identified from workshop one included:

- Consistent and effective communication is very important.
- Back pain can be difficult to explain and difficult to understand.
- Peer support can make a big difference to the recovery process.
- Early access to practical information helps people do the right thing.

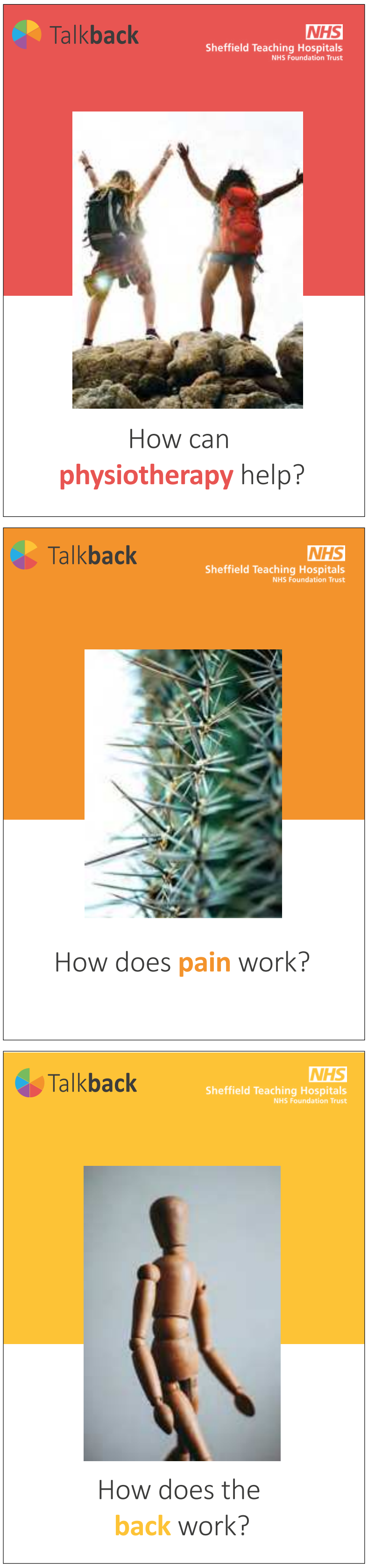
In an initial service visualisation of how the talkback concept might work throughout the patient journey from initial GP consultation to their first physiotherapy appointment. This visualisation was taken back to a selection of participants at a prototype meeting and their views and feedback were obtained. It was always important that the new resource fitted in to and improved the services already available. Therefore at the heart of the talkback concept was 'sandys talk' an existing low back pain education session that had been received positively by participants who had experienced it. We then worked with the physiotherapists who led this session to agree on it's look and format and accompanying resources that took into account the themes from the workshops.



Talkback is a consistent resource throughout the patient journey.

The result

The result – "Talkback" is a series of linked resources that are available throughout the patient journey. Together they provide a logically consistent explanation of back pain. The resources use active learning strategies, easy to understand explanations and provide opportunities for people to relate the information to their own circumstances and create a personal action plan. They will be available to use in physiotherapy sessions, online and in an education and peer support session. The project report can be found here.



We used visual content to make information accessible.

Improving access to the Hepatitis C clinic

Context

In England, approximately 160,000 people are chronically infected with Hepatitis C Virus, with approximately half of this figure remaining undiagnosed. Those at greatest risk of infection are people who inject drugs (PWIDs).

Despite curative treatment (which is now more effective than ever before, of shorter duration and better tolerated with few side-effects), many PWIDs do not engage with services to be given treatment. This project took place in Sheffield and was led by Ray Poll, the nurse consultant for viral hepatitis working across a number of hospital and charity services. Ray proposed the theme based on insights garnered from his PhD in this uniquely challenging context, and wanted to actively use creative co-design techniques to make best use of this knowledge.

Project aims

The primary aim of the project was to devise a tool or tools to improve access to the Department of Infection and Tropical Medicine Hepatitis C Clinic for people with infection due to drug use, using creative co-design methods.

Our aim was to:

- Develop personas to explore patient reasons for not engaging with support or missing appointments,
- Use co-design to explore potential solutions that might support and encourage the seeking of help and treatment, and
- potentially to address issues in the delivery of help and treatment to encourage access.

Meet the project lead

I have been nurse consultant for viral hepatitis at Sheffield Teaching Hospitals NHS Foundation Trust since 2002. I'm responsible for the strategic development and management of nurse-led clinics in hospital and a drug treatment service for clients infected with hepatitis C. The latter was the setting for my doctoral study which I completed in 2014, investigating the reasons for client missed appointments. My research interests include exploring ways to make services more accessible to patients. I am nurse member for the National Strategy Group for Viral Hepatitis, and have had work published in a variety of nursing and medical journals, as well as a chapter for a research-based book on public health.

Ray Poll –
Nurse Consultant

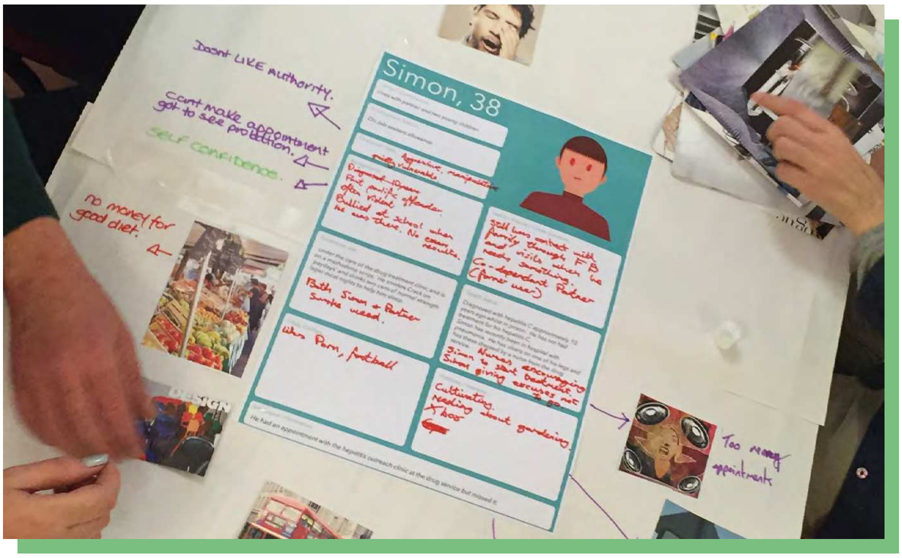
raypoll49@gmail.com

The approach

Working with Ray allowed us to use existing networks of staff and service users to invite to the workshops. The initial project comprised of two half-day workshops with a broad range of stakeholders, from current and past service users through to staff from both the charity and statutory services. These were followed by a third workshop to share initial solutions, and a celebration event at the end.

We decided to host the workshops in a neutral environment, away from the hospital or outreach clinic, which we felt would be conducive to all participants. We served food and drink at each workshop, we reimbursed travel costs for each service-user participant and gave them high street vouchers as a thank you for their time and contribution.

Workshop activities developed personas of both service users and staff to draw on a range of perspectives. We used visuals to explore barriers and facilitators for these persona to both engage and deliver services and then brainstorming and sketching to ideate solutions.



The workshops

Workshop one, attended by 20 participants comprising both service users and providers, used 'taboo' as an activity to warm up relax everyone. We then introduced the partially completed personna and small teams of either staff or service users were supported by the design team to complete the personna. These personas were used to explore and understand the key barriers for engaging with services, which were then visualised. The groups were encouraged to use creative methods to complete the personna, magazine cut outs and prompt cards were used to encourage participants to express their thoughts and ideas in ways that didn't completely rely on written langauge.

The second workshop presented the themes and persona back to the group using our visual record, and in small groups we developed ideas that addressed identified needs of the persona, to overcome the barriers for engaging with support and treatment or attending appointments. At this session we welcomed additional undergraduate design researchers to help capture and translate the ideas into visual outputs that we could share later.

A third session shared the draft visualisations of the ideas that were created in workshop two, in the form of static illustrations, that were subsequently developed into animations.

Improving access to the Hepatitis C clinic

What we discovered about method

We found that using independent facilitators with no hidden agenda appeared to be successful in reducing concerns about participation, keeping trust intact and encouraging candid contribution.

We also realised that by tackling the transport challenge for our service-user participants, and by reimbursing their time with vouchers, we had identified measures that might encourage attendance of appointments – participants were especially responsive to the incentive of the vouchers.

> I'd like to say that it was a pleasure to be involved in the project and that it was interesting, innovative and inclusive. I really enjoyed it and thought it was useful.

Thea Williams - Social Worker.

A mobile clinic service delivers more accessible support.

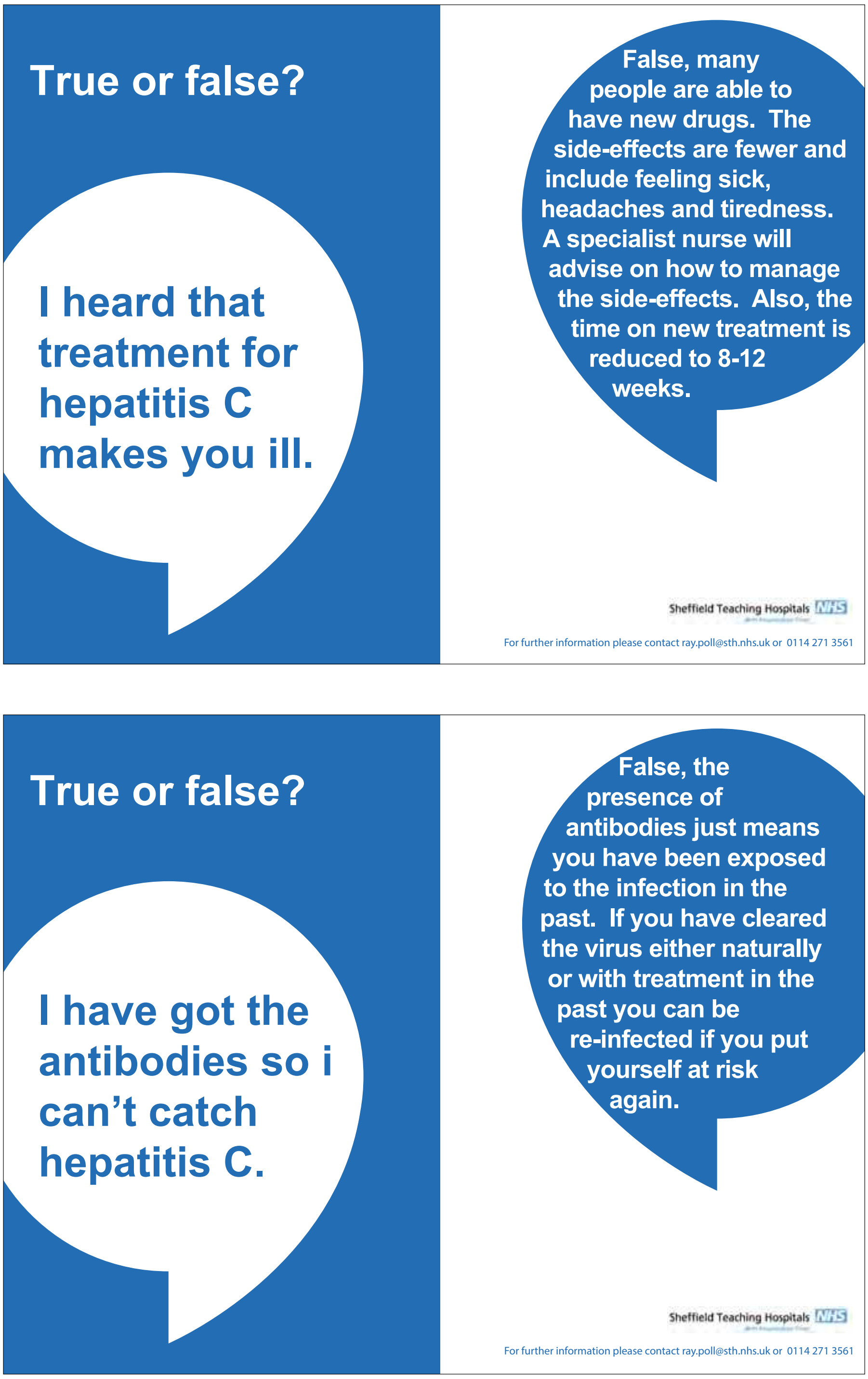
Project outcomes

A key insight countered something really core – we are well-used to referring to 'hard to reach' service users, but discussions revealed that in many ways it is the service that is hard for them to reach. This is demonstrated in responses from service users that describe their reluctance to identify with the drug and alcohol service – although it's practical in many ways to run our services from the hospital, that creates a barrier for the person we are trying to help.

We also found that many of the reasons for not attending were practical – challenges such as travel and finance, rather than a 'non-engagement' or a deliberate rejection of help. Again, this is a barrier to the service, rather than a problem caused by a 'hard to reach' service user.

These insights really informed the four proposed interventions to improve access. These included:

- The further testing of an incentive (voucher) and enabler (taxi), as the workshops showed an improvement in attendance and warrants further research.
- A video illustrating the use of a mobile clinic van, which has been well received with interest from other services and commissioners. A pilot using a van to deliver the service has been delivered.
- A video illustrating the use of peer support was produced and a peer co-ordinator has now been employed to build a team of peers.
- Postcards and posters dispelling the myths of HCV and its treatment were produced and have been displayed in services locally with requests for their use made by other services across the country.



True or false?

I heard that treatment for hepatitis C makes you ill.

False, many people are able to have new drugs. The side-effects are fewer and include feeling sick, headaches and tiredness. A specialist nurse will advise on how to manage the side-effects. Also, the time on new treatment is reduced to 8-12 weeks.

Sheffield Teaching Hospitals NHS

For further information please contact ray.poll@sth.nhs.uk or 0114 271 3561

True or false?

I have got the antibodies so i can't catch hepatitis C.

False, the presence of antibodies just means you have been exposed to the infection in the past. If you have cleared the virus either naturally or with treatment in the past you can be re-infected if you put yourself at risk again.

Sheffield Teaching Hospitals NHS

For further information please contact ray.poll@sth.nhs.uk or 0114 271 3561

Posters and cards are helping to counter myths.

Developing ‘safety netting’ tools to help GPs and patients detect cancer sooner

Context

Half of all cancers in England are diagnosed at a late stage, resulting in lower survival rates and additional treatment costs. ‘Safety netting’ is a process where patients present with vague or atypical symptoms that would not automatically suggest a diagnosis of cancer, but if allowed to deteriorate further could be cause for concern and require referral to cancer specialists for diagnosis or treatment. Although often discussed, there is little practical advice or tools to support doctors and patients in safety netting.

The Yorkshire Quality and Safety Research (YQSR) team, who was specifically interested in the interactions of patients and their GPs, led the overall project. The YQSR team conducted a literature review and combined it with preliminary qualitative research. TK2A prepared the co-design workshops and worked in collaboration with the YQSR team throughout the duration of the project.

Project aims

The aim of this project was to collaboratively develop a tool that would be used by GPs, as part of their practice, to facilitate discussion with patients and develop a safety netting plan as a result of a shared decision making process. Ultimately this would support the earlier diagnosis and treatment of cancers, improving patient outcomes and saving on treatment costs.

The research looked at:

- Exploring and capturing the experiences of stakeholders,
- Generating ideas around the desired safety netting tool,
- Developing, refining and evaluating the desired tool.

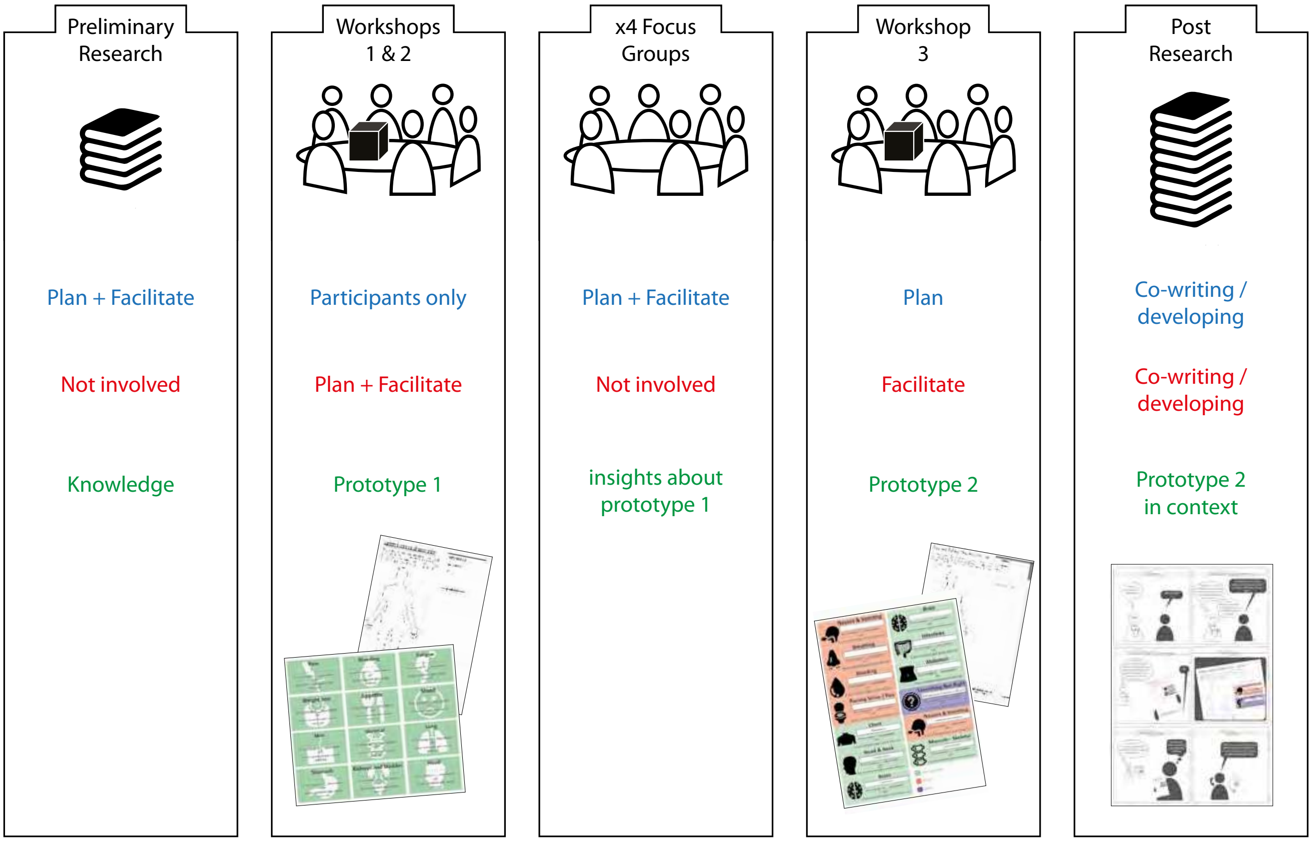
Meet the project lead

I’m a healthcare researcher at the Bradford Institute for Health Research with a background in health psychology. ‘I’m involved in a number of studies which include working with primary care stakeholders to develop an intervention which may assist in diagnosing cancer earlier in primary care and in work exploring the role of emotion and cognition in diagnostic decision making and in communication in clinical teams.

Jane Heyhoe -
Bradford Institute for Health Research

jane.heyhoe@bthft.nhs.uk

🟦 Yorkshire Quality and Safety Research 🟥 Transfer Knowledge 2 Action 🟩 Outcome



	Preliminary Research	Workshops 1 & 2	x4 Focus Groups	Workshop 3	Post Research
🟦	Plan + Facilitate	Participants only	Plan + Facilitate	Plan	Co-writing / developing
🟥	Not involved	Plan + Facilitate	Not involved	Facilitate	Co-writing / developing
🟩	Knowledge	Prototype 1	insights about prototype 1	Prototype 2	Prototype 2 in context

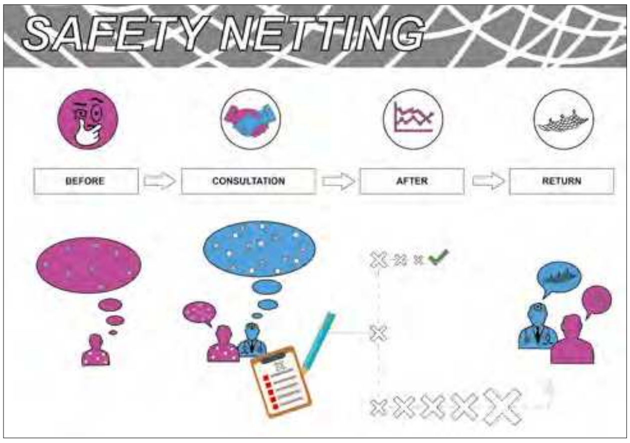
YQSR team and TK2A's collaborative approach defined the project.

The approach

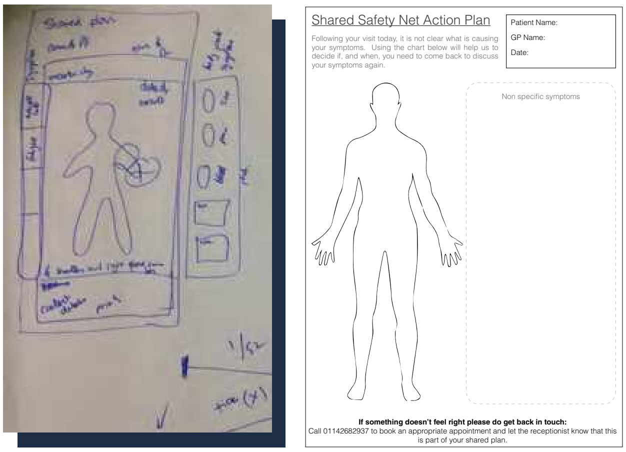
The term 'safety netting' has an ambiguous definition, and this was one of our first challenges. Based on research undertaken by the YQSR team, a visual was produced to ensure everyone in our first workshop had the same understanding of this term. The overall process was underpinned by iterative prototyping.

Three versions of prototyping were developed throughout the project: after the second co-design workshop, following the 5 focus groups, and after co-design workshop three. Each prototype was presented back to the stakeholders and modified again based on feedback.

The final prototype was explored, in context, as part of the GPs practice. We used a combination of workshops, which engaged patients and primary care staff to inform our refinements.



TK2A's visual representation about what safety netting means - presented at start of workshop one.



Shared Safety Net Action Plan

Following your visit today, it is not clear what is causing your symptoms. Using the chart below will help us to decide if, and when, you need to come back to discuss your symptoms again.

Patient Name:
GP Name:
Date:

Non specific symptoms

If something doesn't feel right please do get back in touch:
Call 01142682937 to book an appropriate appointment and let the receptionist know that this is part of your shared plan.

Iterative prototyping - From idea (quick sketch) to realisation (tested template).

The workshops

On average, about 10 participants (patients representatives and primary care staff) took part in two co-design workshops. Some patients had received a diagnosis of cancer but others had not, and some GPs (not all) had experience of diagnosing cancer in primary care. Workshop one importantly began with a definition of the term 'safety netting' and opened up an exploration of the different behaviours (both patients' and GPs') and the subsequent attitudes towards self-management and safety netting from both a GP and patient perspective.

Workshop two introduced the physical context in which the intervention should happen – the GP's surgery – and described the brief to design an intervention to assist the timely follow-up and review of patients with inconclusive diagnosis (safety netting). Visual maps of what a good consultation looks like (see Figure 5) and what an ideal service could be like we produced. These maps combined with a brainstorming activity, during which tools were used to encourage blue sky thinking, led to the design of an intervention that used visual forms of information which are delivered to the patient in a short amount of time at the end of a consultation.

The next stages consisted of presenting the prototype to focus groups for feedback to enable further iterative modifications. These focus groups engaged an additional 40 participants from primary care – 20 patients and 20 GPs.

***Figure 5 -** Visual map about what an ideal consultation would look like from both a patient and staff perspectives.*

Safety Netting Persona 1

Background
- Trained at St George's University
- Initially trained to be cardiac surgeon but due to lifestyle reasons re-trained as a GP aged 38
- Partner in busy inner city GP practice
- Also runs private botox clinic

Character traits
- Impatient
- Grumpy
- Controlling
- Knows what's best
- Does not like/accept when he is wrong

Family/friends/close contacts…
- Wife and 2 children
- Wife used to work as a physiotherapist – how they met, but she gave up work to look after children
- Kids aged 11 and 15. Dog – Donald
- Looking elsewhere (relationship wise)

Likes
- Having a drink after work

Dr Simon, 56
General Practitioner

Attitude towards patients health
- Likely to use term "Good girl" to female patients ie: patronising
- Relies less on guideline and more on personal expertise
- He lacks listening skills and understanding from a patients perspective
- After he has seen a patient he 'puts them in a box' and forgets about them
- His attitude to patients puts them off coming back to see him
- He dislikes guidelines being imposed on him

Hobbies/interests…
- Golf
- Classic cars
- Fine wines and real ales
- Financial incentives – personal and GP practice.
- Pretty nurses
- Status

Dislikes
- Doctor google
- Indecision
- New medicine – Holistic
- Nonsense
- Weekend working
- Doesn't like the way GP practice has changed
- His job doesn't find it fulfilling

Additional information
- He will listen to senior colleagues
- May be willing to get involved if he was 'champion' of the project
- More likely to follow safety netting guideline if given autonomy and choice

Persona presented to participants in workshop two.

What we discovered about method

Through using visuals to gather feedback and to present an imagined solution, this project demonstrated that visuals are an efficient alternative means to communicate something ambiguous or challenging, such as the meaning of a term, or a concept.

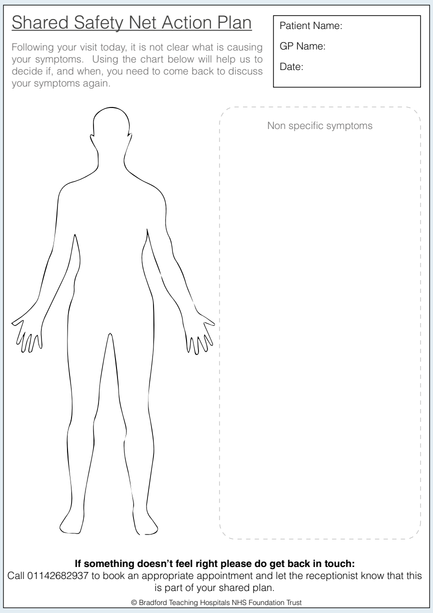
Using the co-creative methods overcame the well established challenge of bringing together patients and clinicians. This was particularly relevant as it was observed that patients had a different expectation of their role in the project and what an outcome might be than the GPs.

The co-creative process however allowed each individual to have a voice in the co-development of the outcome, which encompassed aspects generated by all participants. It is through making, testing and gathering feedback that it was possible to do so.

Project outcomes

This process of co-creation and design helped to overcome many of the anticipated challenges of bringing together patients and GPs. It enabled genuinely balanced input which in turn informed a balanced solution, one that could meet all needs.

The workshop sessions resulted in the creation and development of a Shared Safety Net Action Plan, or SSNAP. After having prototyped the SNAPP iteratively with both GPs and patients, who gave positive feedback, a storyboard visual was created to communicate the new idea (see Figure 6). Further iterative prototype development informed by end-users still needs to take place and this is the ambition of further funding to carry out final testing and implementation.



Shared Safety Net Action Plan

Following your visit today, it is not clear what is causing your symptoms. Using the chart below will help us to decide if, and when, you need to come back to discuss your symptoms again.

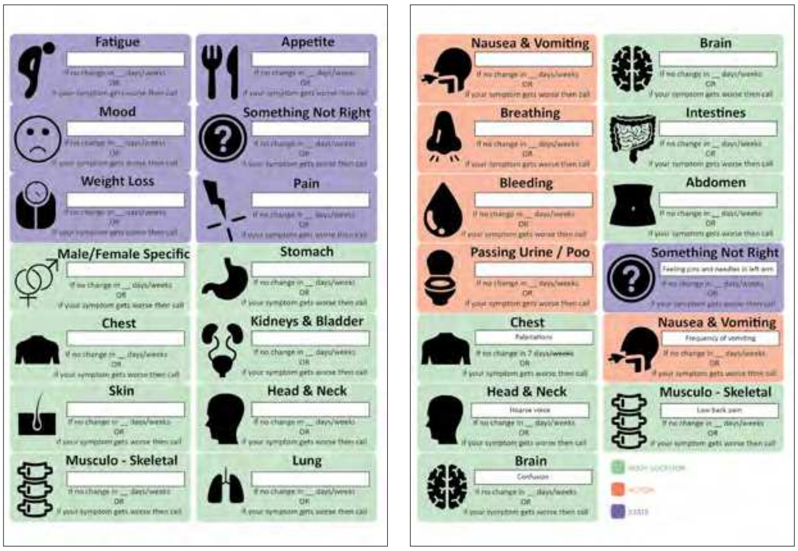
Patient Name:
GP Name:
Date:

Non specific symptoms

If something doesn't feel right please do get back in touch:
Call 01142682937 to book an appropriate appointment and let the receptionist know that this is part of your shared plan.

© Bradford Teaching Hospitals NHS Foundation Trust

A physical prototype of the SSNAP.



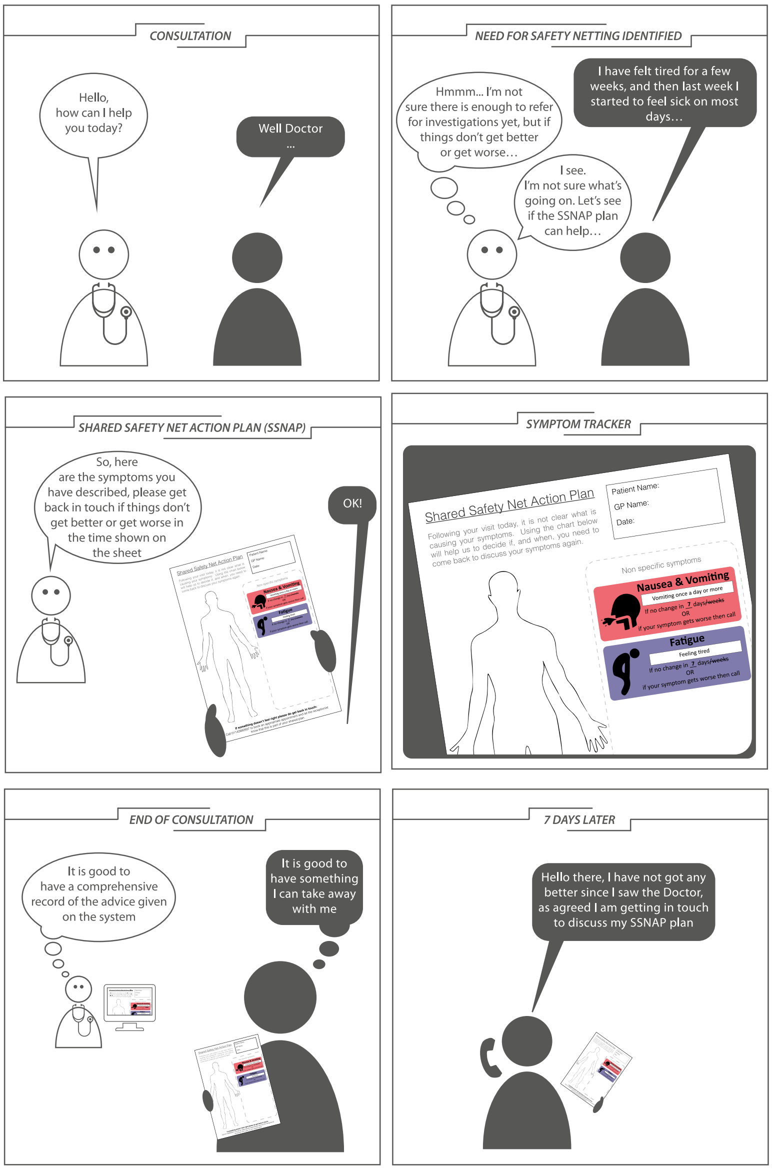


***Figure 6 -** The storyboard visualising how SSNAP is implemented in practice.*

Pulmonary Rehabilitation and Knowledge Translation into Care and Life

Meet the project lead

I have been practising as a Physiotherapist in the NHS since qualifying from Sheffield Hallam University in 2012. I am a Specialist in the Physiotherapy management of respiratory conditions, such as COPD, Interstitial Lung Disease, Asthma and Breathing Pattern Disorders. As Clinical Educator Lead within the team I maintain strong links with the university and currently hold a Specialist Visiting Lecturer post.

I am passionate about the development of our Physiotherapy services in order to provide quality, seamless care and ultimately improve the lives of our service users thus I am a strong believer in knowledge mobilization and research to facilitate this. When not working as a Physiotherapist, I enjoy weight training and generally keeping fit. I am passionate about Veganism, enjoy spending time with friends and travelling.

Laura Lomas -
Physiotherapist

Laura.Lomas@nhs.net

Context

Chronic obstructive pulmonary disease (COPD) is a long term lung condition that obstructs air from reaching the lungs and interferes with breathing, and is a major cause of ill health worldwide. Pulmonary rehabilitation is a programme of activities including exercise, education and other support tailored to the needs of the patient and delivered by a team of health professionals.

Medical guidelines suggest that patients who have a sudden worsening of their symptoms (including increased breathlessness, increased cough or sputum or change in sputum colour) benefit from receiving pulmonary rehabilitation within one month of this event. Unfortunately, only small numbers of patients who could benefit from pulmonary rehabilitation currently attend and some do not complete the programme. This is common both locally in Doncaster, where our project ran, and across the UK. We set out to understand what prevents patients from attending pulmonary rehabilitation programmes after a worsening of their symptoms.

Project aims

The primary aim of the project was to identify issues and solutions to help us improve our service and enable patients to achieve the best outcomes for their health and wellbeing, developing tools to both encourage take-up of the pulmonary rehabilitation programme and to deliver elements of it.

We wanted to:

- Explore patient access to pulmonary rehabilitation,
- Identify barriers to engaging with it or sustaining engagement, and
- Develop and test a range of practical solutions.

The approach

Following a brief consultation with staff and patients the workshops were held between 4-6pm, in order to facilitate uptake, with participants having fewer commitments at this time and with patients often finding their COPD symptoms less pronounced than in the morning. We used two venues – a local community centre and Doncaster Royal Infirmary – to ensure a balance of power between staff and patients and to ensure easy access, recognising that many might struggle with breathlessness and mobility. Participants were reimbursed for their travel and their time rewarded with shopping vouchers.

Before our workshops, we completed an ethnographic observation of staff in context, to inform our thinking and discussions.

This involved the designer, once approval was in place spending times shadowing staff who worked on the pathway. The designer was able to observe a complete patient pathway through admission and the referral process.

The workshops

The first two workshops mapped onto the discover and define stages of the double diamond design model. they were held at the community centre and hospital and used a variety of tools in mixed groups to elicit a blend of perspectives.

We used persona exercises to define 'Peter the Perfect Patient' and identify the conditions that might yield the best patient outcome and introduce current best practice and evidence. Tools including journey mapping and visualisation, along with the black box 'anything is possible' exercise helped us capture ideas to share in our workshops. We also used Lego to build and share ideas and prioritisation, using a star system, to refine our thinking.

There were two workshops, followed by a series of smaller co-design sessions to develop and deliver the three ideas generated from the initial two workshops. There then followed a series of co-design meetings to engage local stakeholders in the creation and implementation fo the ideas.

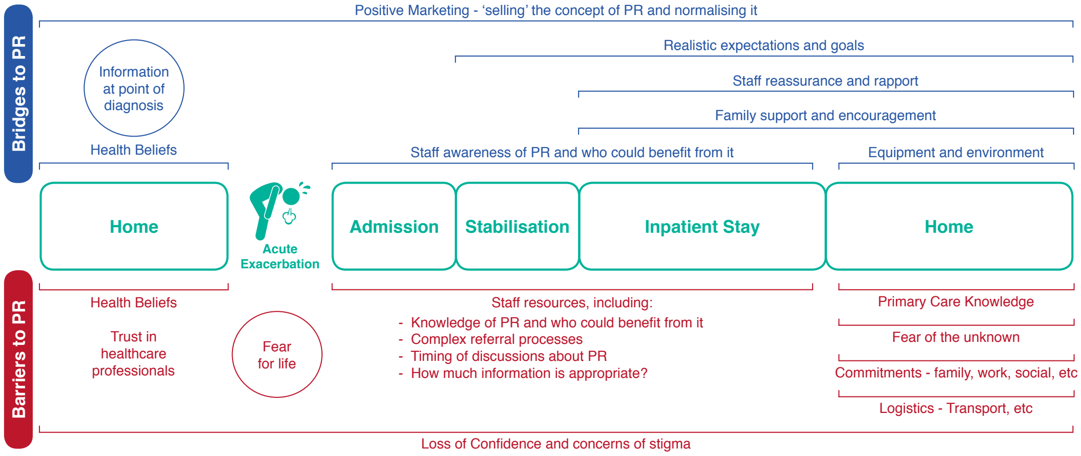
By the end of the first two workshops the group had been supported to understand the current pathway and evidence.

They had also generated three key themes to inform the rest of the project, namely:

Technology Assisted Information; the aim was 'marketing' and raising awareness of the process and benefits of PR amongst healthcare professionals, patients and public. An individualized approach was highlighted as key.

Access and Referral focus was around referral forms and responsibility charting for referral while from patient point of view, self-referral with consideration for understanding eligibility OR considering an opt-out service.

Ideal Community Rehabilitation was based on the 'blue sky' ideas, in response to the diverse challenges around provision and logistics, such as taking out the health bus, or 'PR while you shop'



Workshops revealed bridges and barriers to the programme.

Pulmonary Rehabilitation and Knowledge Translation into Care and Life

What we discovered about method

Co-design tools are often employed for their ability to engage multiple perspectives equally, promote mutual understanding of key issues/contexts, and support collaborative creativity in response to these challenges. This was the case in 'PRaKTiCaL,' however each project is unique and as designers we are always learning. In this project, our participant retention rate was high and I was surprised (but glad!) to see how the participants really took ownership of the concepts generated – tools that allowed all participants to contribute their particular expertise easily and see clearly how their input informed the idea generation supported this.

In addition, it was great to see the range of ideas that were developed throughout the process. It struck me that participants wished to find a balance between making the most of the opportunity to explore 'blue sky' ideas (particularly NHS staff, who rarely have the time or money to do so) but also to generate effective, ready-to-implement solutions.

> You can see the long-term benefits of this project – it is an achievable outcome, and not just chat.

> When I could see it from another person's point of view, that was interesting.

> You're so busy, but sometimes you just need to get off the wheel – this project has brought the needs into focus.

Patient participants.

NHS
Doncaster and Bassetlaw
Teaching Hospitals
NHS Foundation Trust

Do you struggle with your breathing?
Let us help you!

☑ Do you have a lung condition, such as COPD, Bronchiectasis or Pulmonary fibrosis?

☑ Do you suffer from frequent chest infections?

☑ Have you needed treatment for your chest **or** been admitted to hospital in the last 4 weeks?

☑ Do you struggle with breathlessness?

If so, Pulmonary Rehabilitation can help you **regain control** and **acheive your goals**, whatever your ability.

Help is available locally, contact us today:

Laura Lomas
✉ Laura.Lomas@nhs.net
☎ Conisbrough: 01709 649190
☎ Doncaster: 01302 644210

And get back to being you!

A prototype leaflet promotes the programme across clinical and community sites.

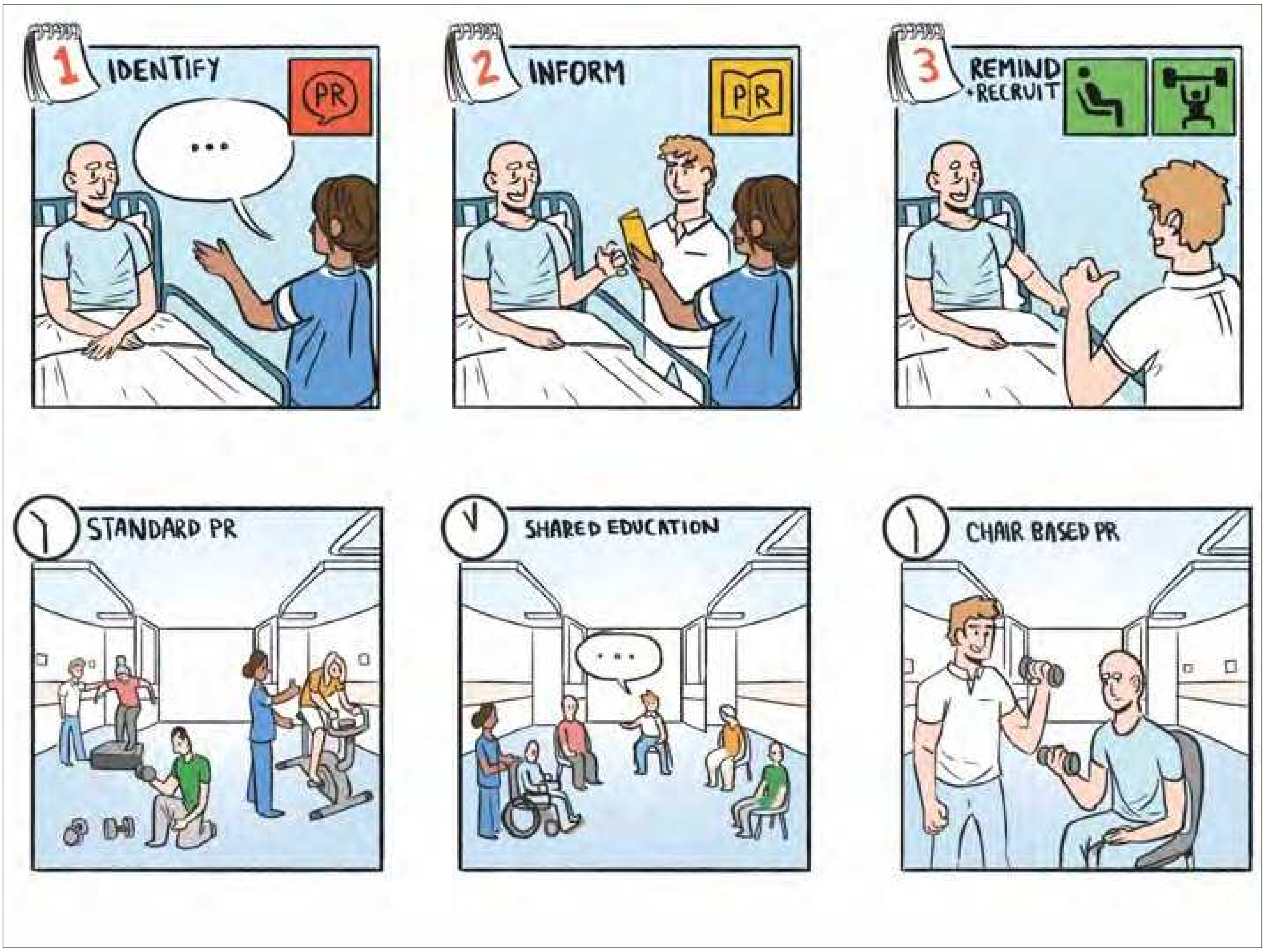
Project outcomes

Three core strands of learning and action came from our project. Our first was the need for awareness, both amongst staff and patients. We discussed integrating information about the pulmonary rehabilitation programme into staff training, and making it part of other staff discussions and meetings across departments. We also talked about fundamental awareness raising amongst patients / public using tools such as a pull-up banner which could be moved around to reach different audiences, signposting people to further information.

We also talked about how we could better introduce the idea of the programme to in patients, offering 'taster' sessions for people to try. This would encourage patients to get dressed when able and engage, and would be a good chance to dispel myths about the programme and, more generally, life with COPD. A concise leaflet written to be accessible to all patients, could routinely be passed to COPD in patients to promote this.

Finally, we considered an interactive / digital programme via delivered via DVD or app to reach patients who may otherwise be unable to attend programme sessions at a hospital site or community centre. It could include a skype link to attend classes 'virtually' thus still benefit from contact with staff, and an App to support patients doing the exercises in their own time with the possibility of observations and monitoring.

Report available **here.**



Staff identified opportunities to inform patients about the programme.

Patient Experience And Reflective Learning (PEARL)

Context

The experiences of patients and staff offer important insights into care quality. Experiences are influenced strongly by staff attitudes and behaviours, both positive and negative. Patient and staff feedback could be used more effectively to modify behaviours and improve care, something that would be more likely if it were integrated more closely with the systematic use of reflective learning to help staff acquire personal insight and foster empathy with the patients they care for.

The PEARL Project had been running for 20 months when the TK2A team joined the collaboration. The initial work carried out by the **PEARL central team** involved the set-up of local project teams at participating hospitals, initiation of ethnographic interviews and observations, and the implementation of both patient and relative and separate staff experience surveys. The role of the TK2A team was to design and deliver co-design workshops across the three participating hospitals: Queen Elizabeth Hospital Birmingham, Heartlands Hospital Birmingham, Newcastle upon Tyne Hospitals NHS Foundation Trust (Royal Victoria Infirmary and Freeman Hospitals). This involved the translation of findings from the ethnographic and experience survey workstreams into practical tools to support front line staff to engage in reflective learning. Participants of the co-design workshops included clinical and managerial staff from the three acute medical units (AMUs) and five intensive care units (ICUs) at the three sites. Each AMU and ICU team was led by a senior clinician from that unit. The unit teams came together to form local site teams.

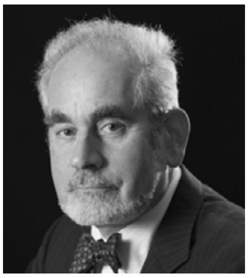
Project aims

The co-design component of the project was to develop and deliver pragmatic, contextually sensitive solutions to support front line staff in Intensive Care Units (ICU) and Acute Medical Admissions (AMU) to engage in reflective learning based on feedback gathered from staff and patients.

We wanted to explore and understand:

- What a day for the health staff working in these units are,
- What might be the enablers and barriers to reflection,
- Develop tools that might support reflection among staff.

Meet the project lead



Julian Bion is the Professor of Intensive Care Medicine at the University of Birmingham. He was consultant in intensive care medicine at the University Hospitals Birmingham, undertaking front-line duties in the ICU including nights and weekends since 1987 until he retired from clinical practice in 2017. He was President of the European Society of Intensive Care Medicine (2004-2006), and Foundation Dean of the UK Faculty of Intensive Care Medicine (2010-13). He led the development of an international training programme in intensive care now adopted by 18 European countries, and was responsible for obtaining speciality status for intensive care medicine in the UK. He has obtained more than £13M for medical research, published 190 scientific articles, and currently leads two national research programmes: the HiSLAC programme investigating quality of weekend medical care in hospitals and in the community; and the PEARL programme to develop methods for promoting reflective learning.

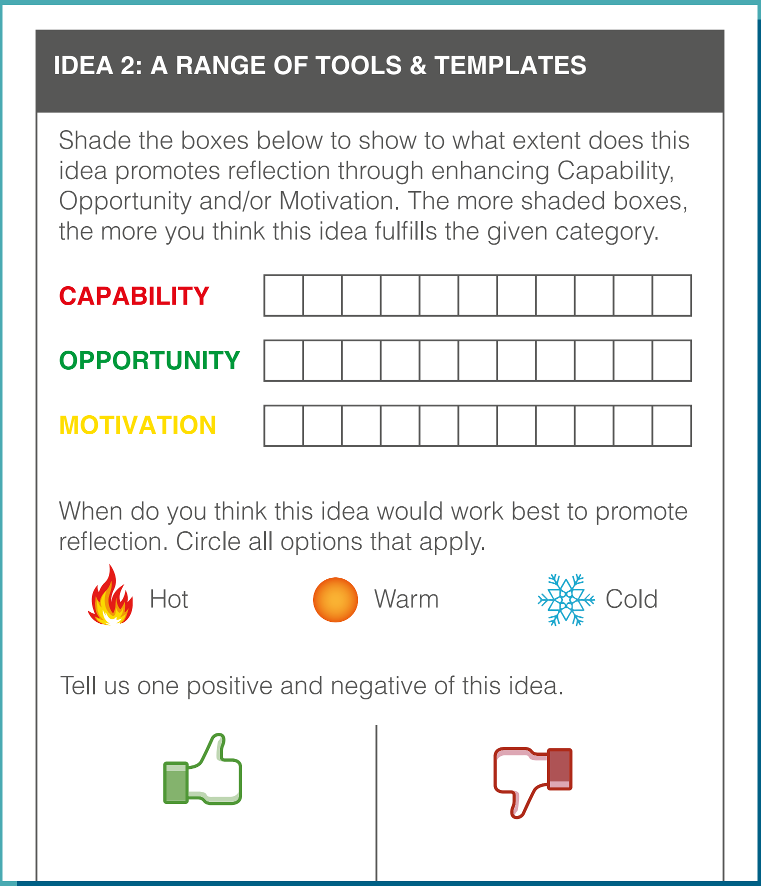
Professor Julian Bion –
Intensive Care Medicine at The University of Birmingham

J.F.BION@bham.ac.uk

The approach

The data collected through the ethnographic work and the experience surveys provided a strong foundation to consider the level of reflection by staff currently, the range of prompts/stimuli that can trigger reflection, different individual approaches to reflection, and the opportunities within the busy clinical day where reflection can be introduced. From this we developed three rounds of co-design workshops to be carried out locally (9 workshops in total) to explore these areas further. The co-design meetings were open to other members of the AMUs and ICUs who were not already part of the PEARL local project teams.

A range of tools were used including: personas to identify the variety of approaches staff may use for refection: and silhouettes allowing visual representation of incidents and events that were considered a 'reflectable moment'.



IDEA 2: A RANGE OF TOOLS & TEMPLATES

Shade the boxes below to show to what extent does this idea promotes reflection through enhancing Capability, Opportunity and/or Motivation. The more shaded boxes, the more you think this idea fulfills the given category.

CAPABILITY ☐☐☐☐☐☐☐☐☐☐☐

OPPORTUNITY ☐☐☐☐☐☐☐☐☐☐☐

MOTIVATION ☐☐☐☐☐☐☐☐☐☐☐

When do you think this idea would work best to promote reflection. Circle all options that apply.

Hot Warm Cold

Tell us one positive and negative of this idea.

👍 👎

COM-B Assessment Card.

A selection of visuals translating theory into accessible materials.

Ideating behaviour change in Newcastle.

The workshops

The aim of the first workshop was to allow the groups to explore the meaning of reflection and how it 'works'. Participants were invited to describe 'reflectable moments' - events or activities that stimulated reflection in themselves or others, what feelings were aroused, how these feelings were used to gain insight into oneself or others, and how those insights could stimulate generalisable learning.

The second workshop gathered participants' opinions and experiences of reflective behaviours as demonstrated by others, by creating reflective character types, or personae. It helped staff to think about their own attitudes to reflective learning but also how their attitudes and behaviours can impact on others.

The final workshop allowed participants to consider more widely the opportunities for reflection. This included this physical opportunity of space/location on the units but also social opportunities (team meetings) within the team where reflection could be enhanced.

The outputs of the three rounds were a list of activities and tools developed to enhance reflection in healthcare staff. These resources form the PEARL reflective learning framework and toolkit which are now at prototyping stage. A final plenary workshop was conducted to gather feedback from the teams on the physical prototypes and the practical implementation of the toolkit.

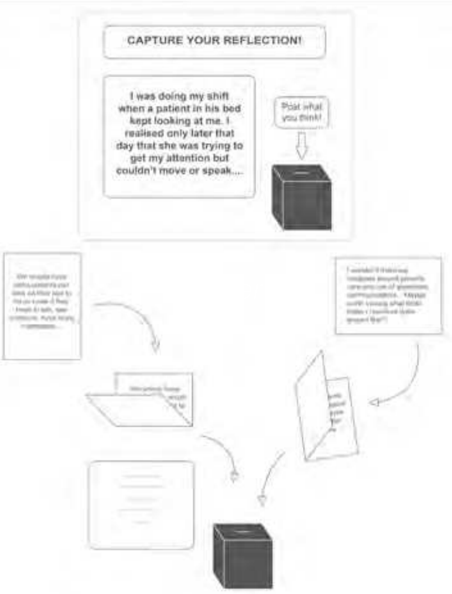
Participants discussed opportunities and barriers to reflection and response.

Journey mapping and silhouettes helped identify scenarios to reflect on.

What we discovered about method

Talking about 'reflection' required us to make sense of some complex behavioural psychology and by embracing co-design we successfully translated this into activities that could be undertaken by frontline staff and patients in workshops. We also found that the co-design activities were themselves supportive of reflection and the processes involved – the co-design approach was central to the success of our workshops in engaging and supporting participation.

Using silhouettes to enact and reflectable moment.



Project outcomes

Through the workshops we were able to complement the work of the ethnographers, testing out some of the observed behaviour seen during that part of the project and deepening our understanding of those observations.

We discovered that although staff had a basic understanding of reflection, most didn't complete a learning cycle to use reflection to consciously change their practice. The workshops helped to determine that in order to support reflection there would have to be resources that enabled reflection alongside the opportunity to respond to it. Digging deeper, we found that the acute clinical environment did not naturally lend itself to reflective learning, and so the thrust of the toolkit was to support staff to recognise when something 'reflectable' had happened and to save it for a time when there was an opportunity (either naturally occurring or supported by their organisation) for reflection.

Two other workshops gathering all stakeholders (from the core team and the three sites) took place to further develop the toolkit and create first mock ups versions of it through iterative prototyping.

The project team are already working on a further funding application to test the toolkit in context and ensure the link to patient benefit can be evidenced.

References

[1] Langley J, Wolstenholme D and Cooke J (2018) 'Collective making' as knowledge mobilisation: the contribution of participatory design in the co-creation of knowledge in healthcare. BMC Health Services Research 18(1). BMC Health Services Research: 585. DOI: 10.1186/s12913-018-3397-y.

[2] Cooke J, Langley J, Wolstenholme D, et al. (2016) 'Seeing' the Difference: The Importance of Visibility and Action as a Mark of 'Authenticity' in Co-production Comment on 'Collaboration and Co-production of Knowledge in Healthcare: Opportunities and Challenges'. International Journal of Health Policy and Management 6(6): 345–348. DOI: 10.15171/ijhpm.2016.136.

[3] Carroll J and Rosson M (2007) Participatory design in community informatics. Design Studies 28(3): 243–261. DOI: 10.1016/j.destud.2007.02.007.

Further reading

Brookes O, Brown C, Tarrant C, et al. (2019) Patient experience and reflective learning (PEARL): a mixed methods protocol for staff insight development in acute and intensive care medicine in the UK. BMJ Open9(7): e030679. DOI: 10.1136/bmjopen-2019-030679.

Hobson EV, Baird WO, Partridge R, et al. (2018) The TiM system: developing a novel telehealth service to improve access to specialist care in motor neurone disease using user-centered design. Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration. DOI: 10.1080/21678421.2018.1440408.

Dearden A, Wright P, Bowen S, et al. (2010) User-centred design and pervasive health: A position statement from the user-centred healthcare design project. In: 2010 4th International Conference on Pervasive Computing Technologies for Healthcare, Pervasive Health 2010, 2010. DOI: 10.4108/ICST.PERVASIVEHEALTH2010.8837.

Bowen S, McSeveny K, Lockley E, et al. (2013) How was it for you? Experiences of participatory design in the UK health service. CoDesign9(4). DOI: 10.1080/15710882.2013.846384.

Dearden A, Wright P, Bowen S, et al. (2010) Pervasive healthcare in lived experience: Thinking beyond the home. In: 2010 4th International Conference on Pervasive Computing Technologies for Healthcare, Pervasive Health 2010, 2010. DOI: 10.4108/ICST.PERVASIVEHEALTH2010.8831.

Bowen S, Dearden A, Wright P, et al. (2010) Participatory healthcare service design and innovation. In: ACM International Conference Proceeding Series, 2010. DOI: 10.1145/1900441.1900464.

Chamberlain P, Mawson S and Wolstenholme D (2017) Services: Service design in chronic health. In: Tsekleves E and Cooper R (eds) Design for Health. Oxon: Routledge. DOI: 10.4324/9781315576619.

Bowen S and Wolstenholme D (2012) Service Innovation for Living Well with Type 1 Diabetes, Designing Wellbeing Workshop Paper. In: Proceedings of DIS2012, Newcastle-Upon-Tyne, UK, 2012.

Sustar H, Dearden A, Bowen S, et al. (2013) Using Popular Culture to Enable Health Service Co-Design with Young People. In: Proceedings of EAD 2013 - Crafting the Future, Gothenburg, Sweden, 2013.

Wolstenholme D, Downes T, Leaver J, et al. (2014) Improving self-efficacy in spinal cord injury patients through 'design thinking' rehabilitation workshops. BMJ Quality Improvement Reports3(1): u205728.w2340-u205728.w2340.

Bowen S, Sustar H, Wolstenholme D, et al. (2014) Engaging teenagers productively in service design. International Journal of Child-Computer Interaction(in press). DOI: 10.1016/j.ijcci.2014.02.001.

Bowen S, Dearden A, Wolstenholme D, et al. (2011) DIFFERENT VIEWS : INCLUDING OTHERS IN PARTICIPATORY HEALTH SERVICE INNOVATION. In: Participatory Innovation Conference(ed. J Burr), Sønderborg, Denmark, 2011, pp. 230–137. University of Southern Denmar.

Morrison C, Dearden A, Bowen S, et al. (2011) Enhancing PPI in the design of health services and technologies 'From passive consultation to active creative engagement'. In: Delivering better health services: SDO Network and HSRN annual conference, Liverpool, 2011.

Wolstenholme D, Bowen S, Dexter M, et al. (2011) Using design in health: a workshop. In: Royal College of Nursing International Research Conference, Harrogate, 2011.

Wolstenholme D, Cobb M, Wright P, et al. (2010) Participatory Design with Health and Social Care Institutions An Interactive workshop at the 2010 PDC Conference. In: Proceedings of PDC 2010, Sydney, Australia, 2010.

Cobb M, Bowen S, Dearden A, et al. (2010) Participatory Design Methodologies Used to Effect Change in a Healthcare Environment. In: Design Research Conference, Spokane, Washington, 2010.

Bowen S, Dearden A, Wright P, et al. (2010) User-centred healthcare design: A new model of engagement. In: RCN Annual International Nursing Research Conference, The Sage Gateshead, Newcastle Gateshead, North East England, UK, 2010.

Wolstenholme D, Cobb M, Bowen S, et al. (2010) Design-Led Service Improvement for Older People. Australasian Medical Journal3(8): 465–470.

Wolstenholme D, Grindell C and Dearden A (2017) A co-design approach to service improvement resulted in teams exhibiting characteristics that support innovation. Design for Health1(1). Taylor & Francis: 42–58. DOI: 10.1080/24735132.2017.1295531.

Chamberlain P, Wolstenholme D, Dexter M, et al. (2015) The State of the Art of Design in Health An Expert-Led Review of the Extent of the Art of Design Theory and Practice in Health and Social Care. Sheffield, UK: Sheffield Hallam University. Available at: designinhealthnetwork.org.

Wolstenholme D, Ross H, Cobb M, et al. (2016) Participatory Design facilitates Person Centred Nursing in service improvement with older people: a secondary directed content analysis. Journal of Clinical Nursing. DOI: 10.1111/jocn.13385.

Langley, J., Wheeler, G., Partridge, B., Bec, R., Wolstenholme, D., Sproson, L., (2020) in 'Designing with and for Older People', in Andree Woodcock et al. (Eds): Design of Assistive Technology for Ageing Population Vol. 167. Chapter DOI: 10.1007/978-3-030-26292-1_1

Using distributed creative co-design to develop a treatment decision support tool for people with malignant pleural effusion , Cheryl Grindell, Dan Wolstenholme, Remi Bec, Angela Tod, Design4Health, Sheffield, UK, Sept 4-7 2018.

Bec, R., Langley, J., Wolstenholme, D., 'Designing in Health: Developing Shared Knowledge through (Un-) Prototyping', Design4Health, Sheffield, UK, Sept 4-7 2018.

Langley, J., Wheeler, G., Partridge, R., Bec, R., 'The need for distributed co-design in healthcare contexts', Design4Health, Sheffield, UK, Sept 4-7 2018.

Wheeler, G. Partridge, R., Bec, R., Langley, J., 'Making Knowledge, Making Impact', Creating Knowledge Conference, Sheffield, UK, 15th June 2018

This research was funded by the NIHR CLAHRC Yorkshire and Humber (NIHR CLAHRC YH). www.clahrc-yh.nihr.ac.uk. The views expressed are those of the author(s), and not necessarily those of the NIHR or the Department of Health and Social Care.

Produced September 2019. © Sheffield Teaching Hospitals NHS FT.

CREATIVE
CO DESIGN

Using creative methods to co-design better healthcare experiences

FUNDED BY
NIHR | National Institute for Health Research

bit.ly/TK2A_2019