

CROSSOVER WORKSHOP

Workshop report

WAYS OF SEEING INVISIBLE ILLNESS

22nd November 2021

Organised by Dr Michael Pierre Johnson, Gaston Welisch & Elio Caccavale
Innovation School, The Glasgow School of Art
in collaboration with Dr Margaret Rose Cunningham,
RSE Young Academy of Scotland

INNOVATION
SCHOOL
THE GLASGOW
SCHOOL OF ART

RSE YOUNG
ACADEMY
OF SCOTLAND

 The
Physiological
Society

 BIOCHEMICAL
SOCIETY

INTRODUCTION

This Crossover Workshop brought together a broad range of academic and disciplinary expertise and interests to explore new ways of seeing and understanding people's experiences living with and working with invisible illnesses.

It partnered with the Royal Society of Edinburgh's Young Academy of Scotland (YAS), recruiting academic members interested in developing patient-centred collaborations in response to the challenges of intangible health conditions. This initial group of YAS members identified challenge contexts they wished to explore based on their areas of research, which were then used to recruit further expertise from medical sciences, primary care and design to develop ideas through design activities.

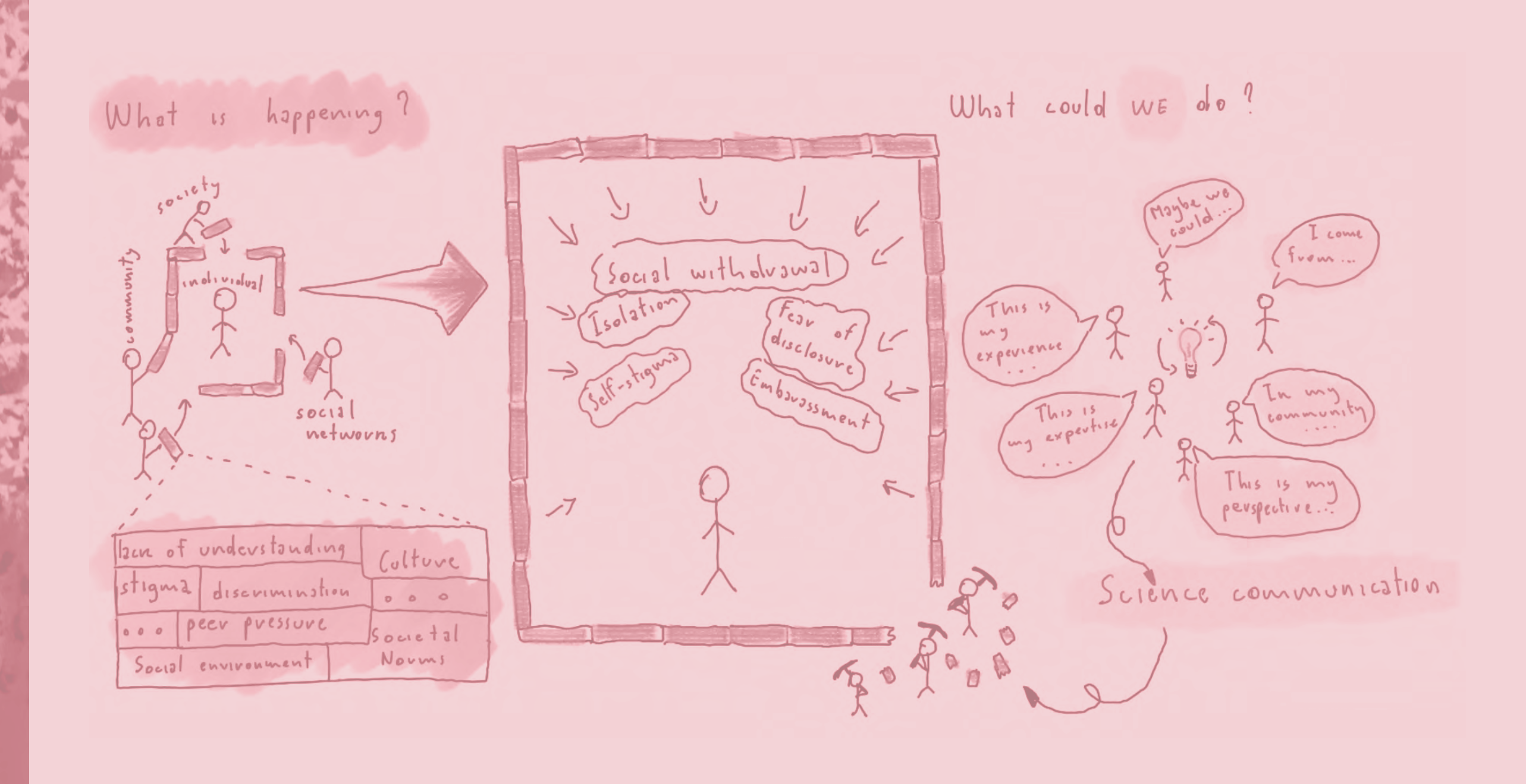
At GSA, we suggest that innovation occurs at the edges of fields of expertise. As such, we feel that initiating design and science dialogues can reveal the matters of concern and opportunities in unfolding scientific advances.

The Innovation School at GSA aims to apply design practices and inquiries, in collaboration with contextual experts and the people affected across society, to bring tangible form to the abstract and complex contexts, such as scientific research, and its implications.

ACKNOWLEDGEMENTS

We would like to express our gratitude for the support received by the Biochemical Society. In particular, we would like to thank Dr Pedro Ferreira (Education and Public Engagement Manager) for giving us the opportunity and confidence to set up and develop the Crossover Project.

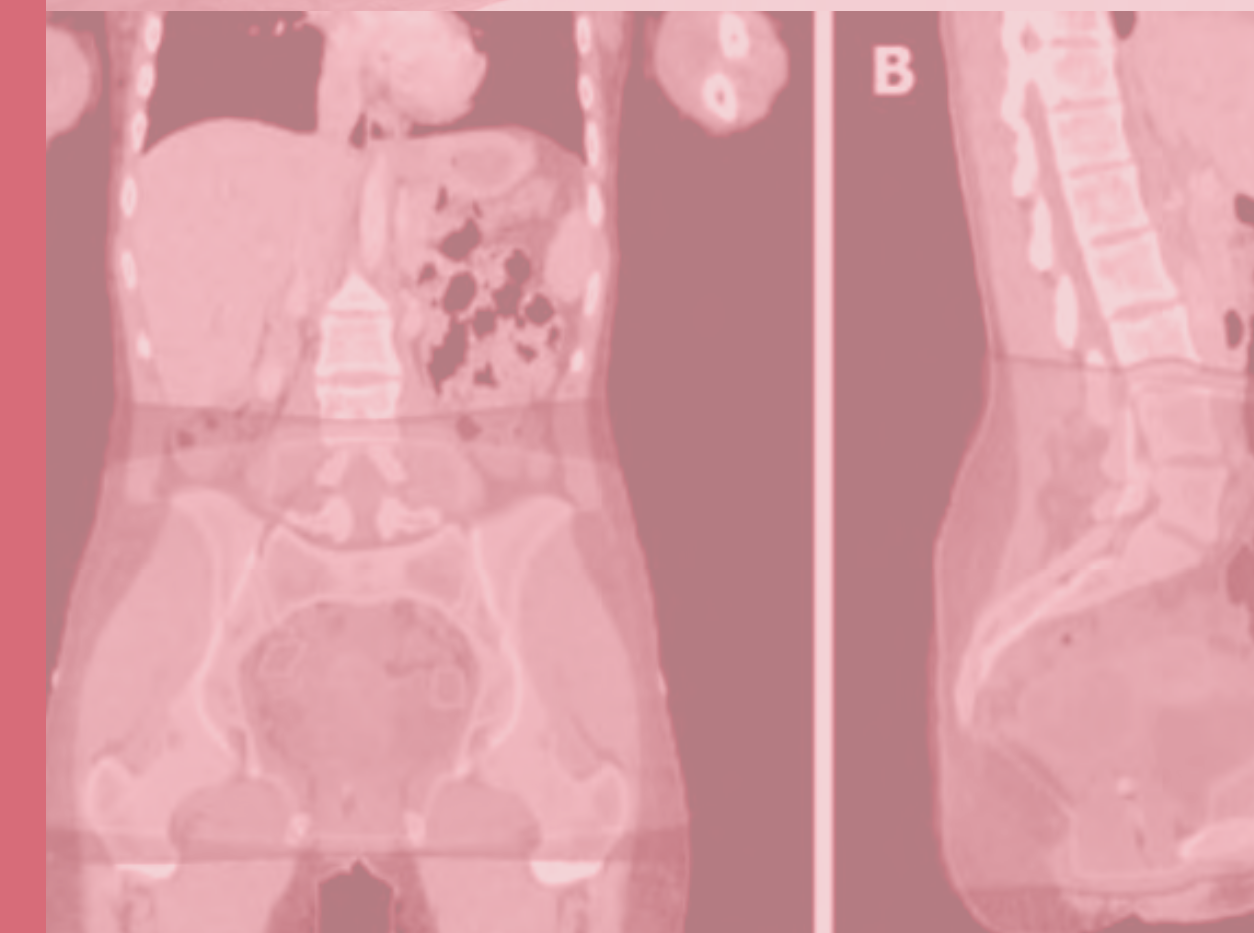
We are also enormously grateful for the contribution of Dr Margaret Rose Cunningham from the University of Strathclyde and member of the Young Academy of Scotland. Her energy, enthusiasm and guidance has enabled exciting connections and opportunities for design innovation to enhance what is possible for YAS members' research and impact.



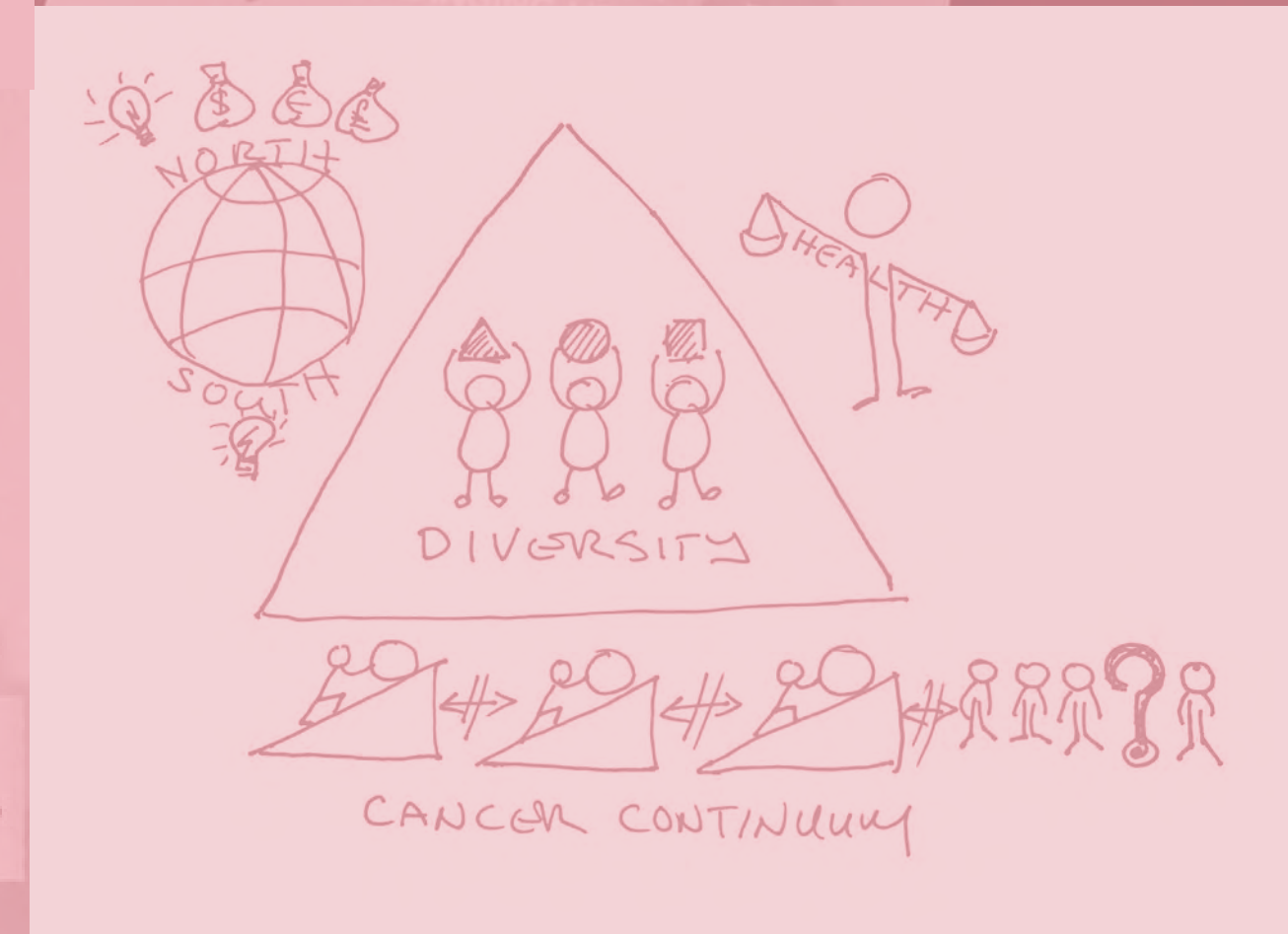
Acanthamoeba keratitis is not just an eye rare disease, is more than that, is ...

- **DEVASTATING** eye disease
- **EXCRUCIATING** pain disease
- **DEPRESSING & PTS** mental disease
- **DEBILITATING** body disease
- **BANKRUPT** economical disease

AK Patient Advocate
Acanthamoebakeratitis.info



A quoi ça sert d'imaginer des vêtements si on peut rien faire dedans ?



Problems

- 48% of women are embarrassed by their periods
- 50% of those with heavy periods have not spoken to their GP about them
- 66% are uncomfortable
- Menstrual is rated 8/10
- 50% of girls have missed school due to menstruation

Solutions

- TALK ABOUT MENSTRUATION
- DO NOT BE ASHAMED ABOUT PERIODS
- STOP USING EUPHEMISMS
- SEEK MEDICAL HELP IF PERIODS IMPACT ON YOUR LIFE

These images were submitted by the participants to present themselves



BACKGROUND

This work has built on an original Crossover Workshop collaboration in November 2019 between the Innovation School and the Biochemical Society to explore the potential for exchanges between design and biochemical sciences. A video and downloadable PDF (link at end of document) capture the experiences and outcomes from bringing together eight biochemical scientists and eight design researchers to share their research interests and forms of disciplinary inquiry.

We have since been funded by the Biochemical Society and the Royal Society of Edinburgh Young Academy of Scotland to pilot three further Crossover Workshops programmes that bring together scientific, societal and creative storytelling disciplines from a core cluster of Glasgow-based academic institutes with national and international publics, experts and institutions.

The first workshop explored storytelling and visual ethnography to merge stories of people who work with, or are affected by, mitochondrial research and diseases. The second workshop partnered with STEM Equals to support the co-design of a programme of sustainability education days for young people with disabilities, their families and carers at Dolphin House, Ayr, during the summer school break in 2021.

Dr Margaret Rose Cunningham attended our original Crossover Workshop and was a vital part of bringing together (and participating in) the STEM Equals Crossover Workshop. Margaret has been our direct partner in approaching and bringing together members from YAS for this third Crossover Workshop and we anticipate many routes for collaboration together going forward. She also secured additional funding from the Physiological Society for public engagement on this work.



Elio Caccavale

Reader in Transdisciplinary Design Innovation
The Innovation School, The Glasgow School of Art



My research investigates design and science partnerships, with particular emphasis upon collaborative research methods. Furthermore, it explores new visual and three-dimensional design vocabularies for thinking about ethical and social issues in the sciences, and it aims to contribute to the ongoing methodological debates in bioethics, science communication and the sociology of emerging scientific knowledge. My research projects have featured prominently in national and international exhibitions (MoMA NY, Dana Research Centre, Science Gallery Dublin and Royal Institution) aimed at increasing public understanding of design's interface with science and society, and introducing new design ideas, methods and approaches to the public.

My aim with the Crossover project is to create a dynamic network of transdisciplinary dialogue about science and society, facilitated through design innovation, to enable consistent crossover between different disciplines and a range of institutions, within the academic community, the public and the third sector.



Dr Michael Pierre Johnson

Innovation Leadership Fellow in the Creative and Digital Economy
The Innovation School, The Glasgow School of Art



My research uses design practices, such as visual mapping and modelling methods, to support and evaluate creative collaboration between different expertise, stakeholders and publics in the face of shared societal challenges. In Jan 2019 I was awarded an AHRC funded Innovation Leadership Fellowship in the Creative and Digital Economy. By combining sociological theory with design practices and qualitative modes of analysis, I apply Design Innovation to support reflexive discourse on the value of creative collaboration and innovation.

My aim with the Crossover project is to support the design and evaluation of effective ways for science, societal and creative disciplines to come together, collaborate and make a difference, as well as evidence how 'transdisciplinarity' - a practice that transcends, challenges or renegotiates traditional disciplinary boundaries and reconstructs them in new positions - can be said to take place.



Gaston Welisch

Research Associate
The Innovation School, The Glasgow School of Art



My practice focuses on incorporating Play into our interactions with everyday objects and environments. By combining different mediums and platforms, I aim to communicate complex topics and problems in engaging ways.



Dr Margaret Rose Cunningham

Senior Lecturer in Cardiovascular Pharmacology
Young Academy of Scotland, Facilitating Group



When the Crossover project between GSA and Young Academy of Scotland (YAS) was initially designed, we set out to provide YAS members and other participants with new transdisciplinary learning opportunities and applications of "crossover" knowledge for new project idea generation. In doing so, we wanted to develop a range of societal-facing project proposals that incorporate methods of design innovation to reach diverse audiences and maximise impact.

The ethos of YAS is to work together to address the most challenging issues facing society in Scotland and beyond. The impact of Covid-19 and health inequalities borne from disruption to regular healthcare services and access to valuable support networks represents a priority area that warrants immediate action. With this workshop, we managed to engage in rich discussion across expert groups to identify key challenges that exist in this space and create clear actions to enable better support mechanisms to empower those living with unseen illness. These core areas will form the basis of continued engagement, where YAS expertise can meaningfully contribute towards amplifying the voices of those most impacted by invisible illnesses.



LIST OF PARTICIPANTS

Dr Fiona Kerr
Alzheimer's Disease

Prof Fiona Henriquez-Mui
Parasites and Infectious Diseases

Dr Ourania Varsou
Anatomy

Dr Margaret Rose Cunningham
Pharmacology

Dr Jackie Maybin
Clinical Sciences and Gynaecology

Dr Emilie Combet
Nutrition

Dr Aude Le Guennec
Fashion Anthropology

Senior Lecturer
General Practice & Primary Care

Dr Catherine Hanna
Oncology and Impact

Prof Nichol Keith
Oncology

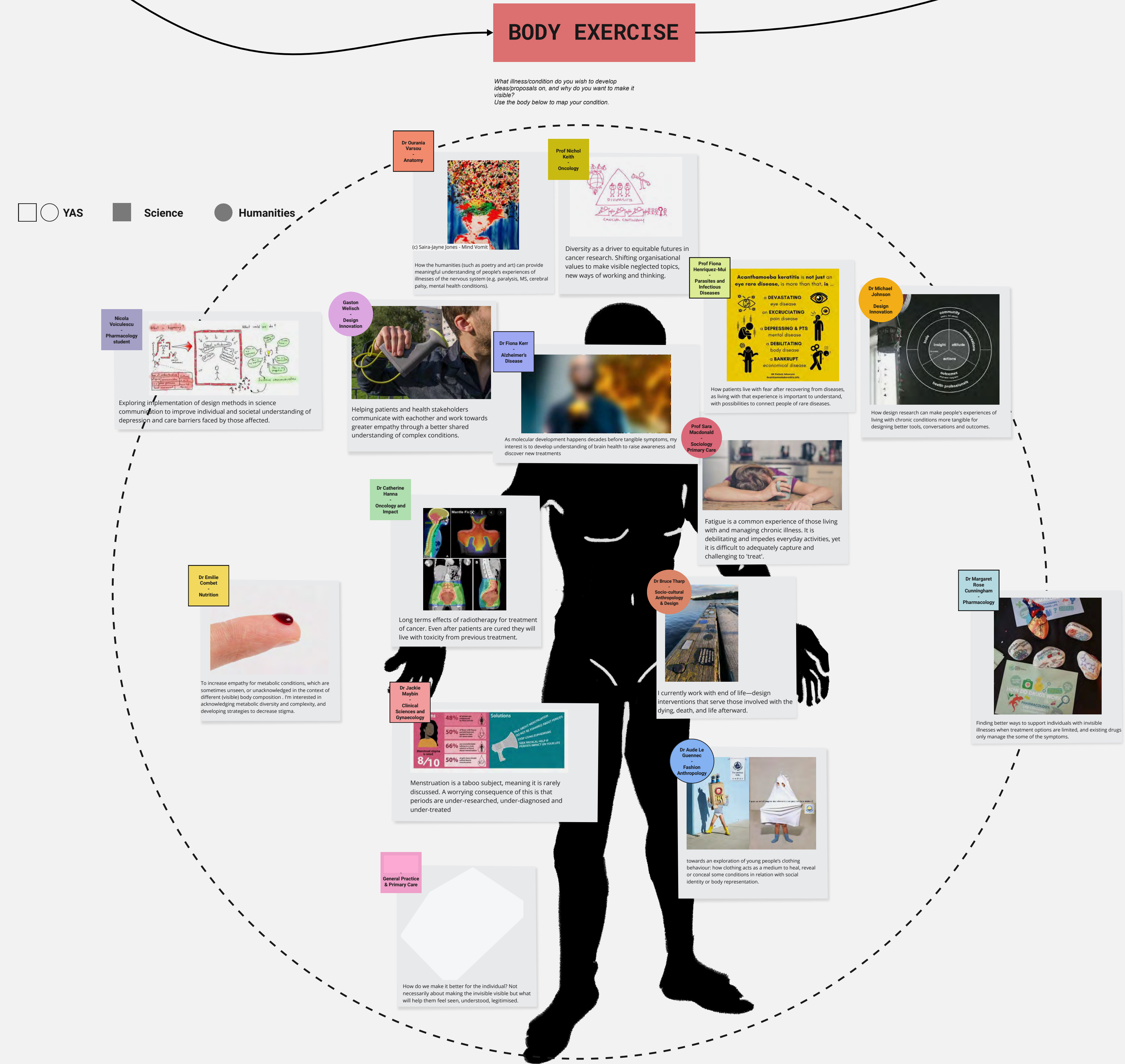
Dr Michael Pierre Johnson
Design Innovation

Prof Sara Macdonald
Sociology Primary Care

Dr Bruce Tharp
Socio-cultural Anthropology & Design

Gaston Welisch
Design Innovation

Nicola Voiculescu
Pharmacology student



The following symbols were used to clarify the background of each participant:



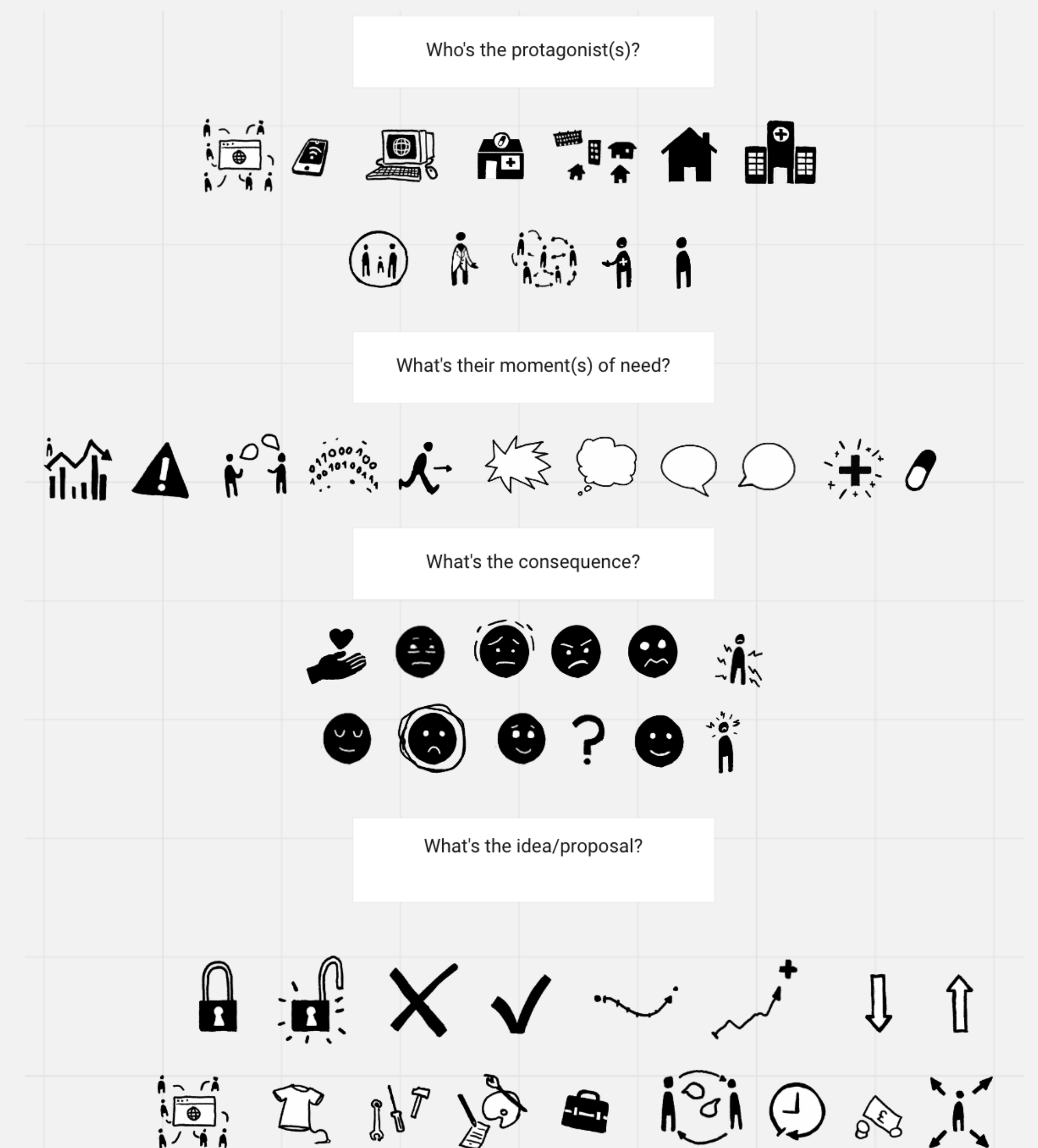
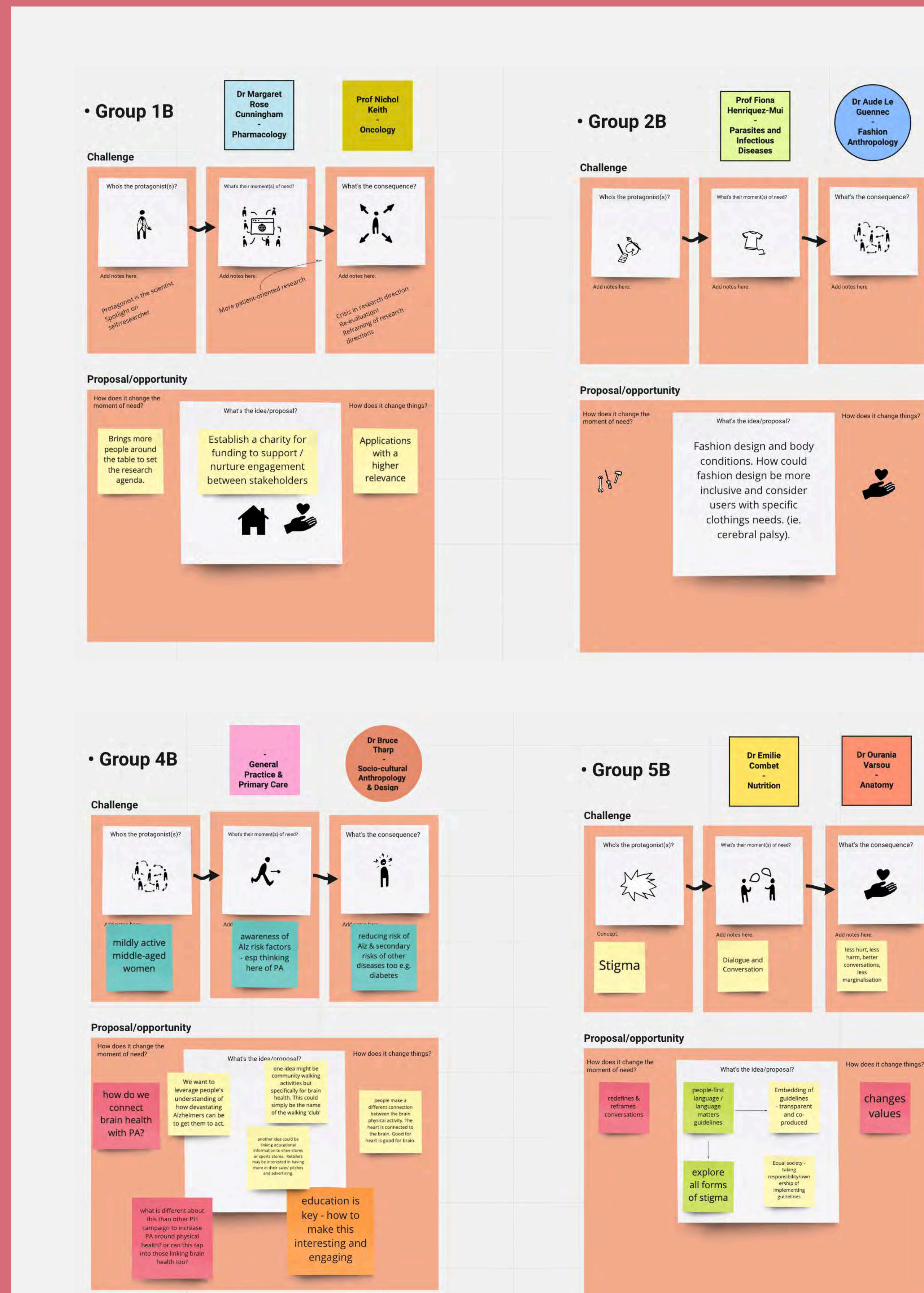
WHAT DID WE DO?

On the 22nd November 2021, 15 participants with expertise ranging in pharmacology, oncology, anatomy, alzheimer's disease, primary care, gynaecology, infectious disease, nutrition, anthropology, fashion and design were brought together to participate in a workshop exploring ways of seeing invisible illness.

Each medical academic participant was asked to present themselves in 2 minutes using an image and a short statement on what illness they wanted to make tangible and why. Other participants presented how their discipline contributes to making the intangible tangible.

Participants were then put into pairs of contrasting expertise to identify and storyboard a scenario or challenge they wish to change. Then together they would sketch an idea or proposal for how it could be positively addressed.

Two sets of pairings were given this task, with 14 proposals drafted altogether and shared for wider feedback on key strengths, opportunities and next steps.



WHAT WAS PROPOSED?

STIGMA & EMPATHY


WHAT WAS DISCUSSED

Problematic menstruation

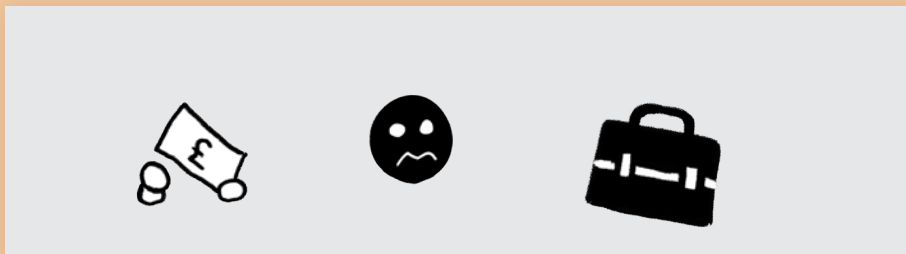
Dr Jackie Maybin
-
Clinical Sciences and Gynaecology

Prof Nichol Keith
-
Oncology

Challenge



- Protagonist: Middle age woman with heavy period or problematic menstruation.

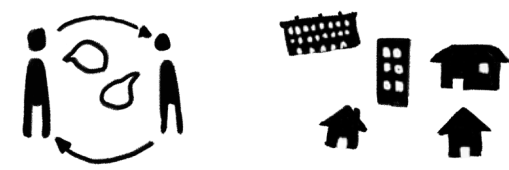


- Moment of need: There are longstanding physical, financial, and wellbeing impacts of problematic menstruation, such as missing school, bad grades, and missing out work or a career. Embarrassment when periods occur means issues aren't communicated, don't get accommodated for at work, aren't getting treated, they can't actually function and can feel isolated.

Proposal

Accommodating menstruation

- Change society slightly so that menstruation can be accommodated, through early education and normalising at school, at home, at work or extracurricular activities.
- Solutions are both on people and places - institutions, clubs, schools, toilets (and other environments) - as well as physical products, such as sports uniforms.
- Help employers, doctors and policy makers have menstruation on their radar and agenda, so life can better accommodate for women and reduce health inequalities.



“ And (...) that needs to start at a very early age by talking to both men and women, boys and girls about menstruation, making it part of the curriculum and schools, normalising talking about it in the home environments (...) ”


WHAT WAS DISCUSSED

Recovering from infection

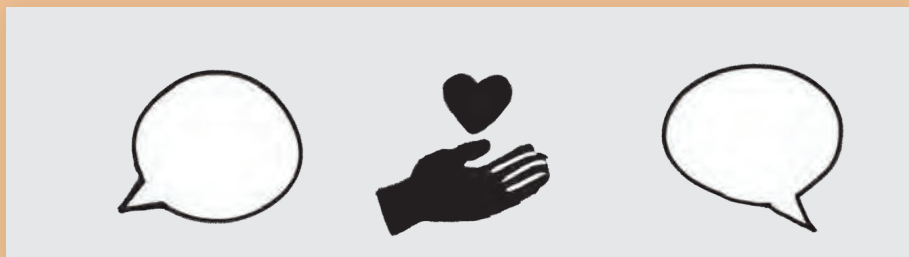
Prof Fiona Henriquez-Mui
-
Parasites and Infectious Diseases

Prof Sara Macdonald
-
Sociology Primary Care

Challenge



- Protagonist: Someone recovering from infection suffering with chronic fatigue.




- Moment of need: Expectation of recovering from infection can put pressure on the patient, as they're not necessarily given time to recover and take stock. They can feel lost and live in fear without being heard and understood.

Proposal

Space to be heard and recover

- Guidance needs to be given to support groups to help provide a better space for patient experiences to be taken seriously.
- Too much information from support groups can leave patients feeling overwhelmed.



“ When somebody recovers from infection, (and) they've been to the doctor, (have their) medication, (and they) don't have the overt signs of infection, there is an expectation they should be back on their feet and doing their everyday things. ”


WHAT WAS DISCUSSED

Perceptions of mental health


Dr Ourania Varsou
-
Anatomy

Nicola Voiculescu
-
Pharmacology student

Challenge



- Protagonist: Society's limited perceptions of mental health conditions and the lack of empathy this creates.




- Moment of need: There is a general lack of awareness, empathy and understanding of people with mental health conditions. Ownership and responsibility need to be shared, with an acceptance at every stage to avoid guilt and marginalisation.

Proposal

Stimulating empathy

- Use arts and humanities to stimulate empathy and raise awareness by listening to and understanding the patient voice and co-creating accessible outputs (e.g. websites, apps, leaflets, etc.)
- Collaborative, tailored public engagement activities in the community with tangible examples and opportunities to listen to the patient perspective in a safe environment, without feeling stigmatised or judged.
- Eliminate marginalisation, isolation, fear of the unknown and stigma (e.g. tourette syndrome) by promoting equality, diversity and inclusion to normalise mental health conditions.



“ We're thinking of science communication in the community, with tangible examples and an opportunity to listen to the patient perspective in a safe environment, [to allow patients] to share their voice and their stories in a collaborative way. ”


WHAT WAS DISCUSSED

Obesity and metabolic conditions

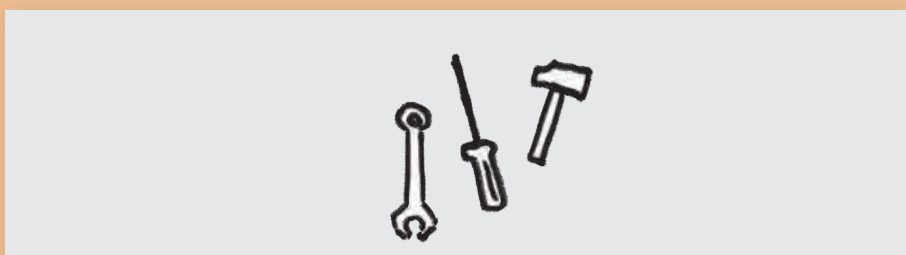
Dr Emilie Combet
-
Nutrition

-
General Practice & Primary Care

Challenge



- Protagonist: People living with obesity caused by an invisible metabolic condition, so when seeking treatment they get generic advice like, 'move more'.




- Moment of need: Advice should be tailored to individuals, with improved support and better engagement. How can we highlight trustworthy sources of information?

Proposal

Metabolism Info Tool

- Provide a point of contact and personalised, evidence-informed approach that enables people to make relevant changes.
- It should tailor guidance and pre-triage using questionnaires and algorithms and display information in an approachable and engaging way.
- It should identify the best sources of information and recommend trustworthy guidance (e.g. education on blood tests and where to get them from).



“ Maybe it shouldn't be an app, rather a tool or platform, something accessible individually or for a wider group understanding ”


WHAT WAS DISCUSSED

Stigma


Dr Ourania Varsou
-
Anatomy

Dr Emilie Combet
-
Nutrition

Challenge



- Protagonist: Stigma felt by people with invisible illness




- Moment of need: Dialogue and conversation to ensure less hurt and less harm. Better conversations for more understanding and less marginalisation.

Proposal

Redefining & reframing conversations

- Finding a 'people-first' language, perhaps set out as language matters guidelines.
- Embedding these guidelines as transparent and co-produced exploring all forms of stigma.
- Based on principles of an equal society, so changing values to take responsibility and ownership of implementing guidelines.



“ The ambition and challenge here is creating guidelines valued and respected by all. That the language identified here is a tool to help build meaningful conversations. ”

Summary

A core theme throughout the process and workshop discussions was the challenge of stigma for those affected by illnesses for which there was a lack of wider understanding. This spanned mental health, rare diseases and common disorders, though all seem to call on similar needs and responses for language, processes and tools that enable greater empathy. Therefore, we aim to further understand the commonalities and differences in the experiences of stigma across multiple invisible illnesses.


WHAT WAS PROPOSED?

POSITIVE SELF-IDENTITY


WHAT WAS DISCUSSED

Losing the social aspect of identity

Challenge



- Protagonist:** People struggling with losing/discovering their identity (people with dementia and younger people with personality disorders)




- Moment of need:** There are social consequences in being unable to engage in society or losing the ability to choose what's appropriate and recognise yourself. A hidden condition becomes visible because the clothes are not appropriate. How can we restore the ritual of dressing up?

Proposal

Social identity through clothing

- There are parallels to explore between childhood (finding identity) and dementia (losing sense of self), and clothing helps adopt an identity and provide a sense of belonging.
- How can designers address the embedding of social identity through clothing?
- Co-create new tools in workshops between people with dementia and younger children suffering from conditions relating to social identity (e.g. autism, behaviour disorders).




“ We were focusing on creating a toolbox allowing people suffering from psychological or behaviour conditions or from dementia (...) to create and collaborate in the design of their clothes in order to identify how we could create more participative fashion, and how clothing could help them (...) engage (with society) in their own way. ”

Dr Aude Le Guennec - Fashion Anthropology
Gaston Welisch - Design Innovation

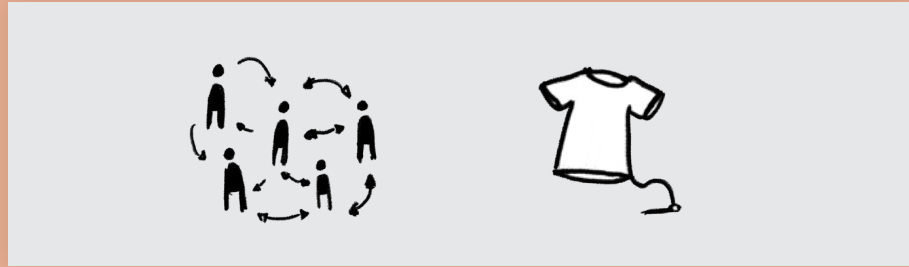
WHAT WAS DISCUSSED

Considering specific needs

Challenge



- Protagonist:** Designers seeking to make clothing more inclusive.




- Moment of need:** How could fashion design be more inclusive and consider users with specific clothing needs (i.e. cerebral palsy)?

Proposal

Inclusive Fashion

- Connect up fashion design and body conditions by enabling them to access, understand and design with people living with these conditions.



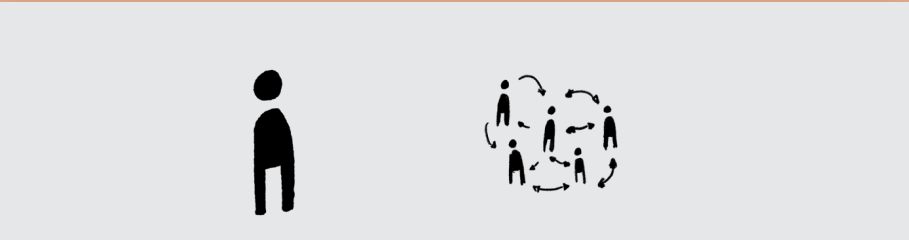
“ This isn't necessarily just about co-creating clothing with patients, but also about tooling up fashion designers and the fashion design industry to better understand, better consider and be better able to design clothes for all sorts of people with all sorts of different bodily conditions. ”

Prof Fiona Henriquez-Mui - Parasites and Infectious Diseases
Dr Aude Le Guennec - Fashion Anthropology


WHAT WAS DISCUSSED

Difficulty communicating illnesses

Challenge



- Protagonist:** Patients and the wider context/society they find themselves in.




- Moment of need:** Everyday social interactions when you have a health burden people can't see or that is awkward to talk about, i.e. before diagnosis versus after diagnosis. This creates difficult social interactions, not being able to talk about what is affecting you, not being your true "self", and avoiding social situations and opportunities due to the condition.

Proposal

Help patients communicate with their support network

- Support groups may be an obvious solution for discussion, but patients want to be able to talk to their friends, family, work colleagues, and get on with their lives, rather than sharing with strangers.
- Create tools to reduce isolation and help patients communicate with important people in their lives, educating loved ones and work colleagues, so the burden isn't always on those going through the illness.
- The goal is making people more comfortable to talk about their invisible health problem.




“ We are focusing on a patient who has a health condition that may be difficult to talk about, like depression, or side effects from cancer treatment like fertility, continence or sexual dysfunction. The context will be different depending on who the patient is interacting with and the condition itself. ”

Nicola Voiculescu - Pharmacology student
Dr Catherine Hanna - Oncology and Impact


WHAT WAS DISCUSSED

Dementia and lifestyle

Challenge



- Protagonist:** People at risk of dementia

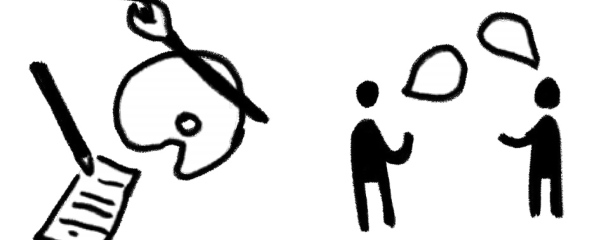


- Moment of need:** It is difficult to get people to connect an improved healthy lifestyle, and improvements in brain health and dementia risk. These links include hearing loss, smoking, depression, physical inactivity, social interaction, deprivation and mid-life obesity.

Proposal

A manifesto for dementia prevention

- Target social music groups to learn and communicate the benefits they bring to dementia risk prevention.
- Create an open manifesto for community groups on how they can counter dementia risk (no smoking, no alcohol, etc)
- Focus on the individual in how the manifesto is written, but focus on the system in how it communicates wider benefits.
- Emphasising social interaction



“ The key emphasis here is on the benefits of social interaction for dementia prevention, and so all sorts of community groups are lauded, and supported, as part of the fight against dementia. ”

Dr Fiona Kerr - Alzheimer's Disease
Dr Michael Johnson - Design Innovation

- Summary**

Alongside the recognition to address stigma through better public understanding were ideas seeking to empower individuals living with invisible illnesses. Participants explored in what ways patients could positively express identity with their conditions, with potential for this to ease how they help their support networks and clinicians understand their experiences. We aim to pilot what such an approach can look and feel like through wearable items.

WHAT WAS PROPOSED?

DISTRIBUTED SUPPORT

WHAT WAS DISCUSSED

Support beyond care

Dr Margaret Rose Cunningham - Pharmacology

Dr Catherine Hanna - Oncology and Impact

Challenge

- Protagonist: Patient-centered care and supporting those undergoing chemotherapy and radiotherapy.

- Moment of need: Times during treatment when the patient is away from the clinic, where do they get support? After treatment, is there a network for survivors? Does the support differ depending on the social or educational background of patients? Support available to patients can differ, with inequality in access to support networks invisible to doctors beyond the care environment.

Proposal

Responsibility of patient support

- Community network formation for those with shared experiences, where aspects of funding and leadership for sustaining the network need to be raised.
- Ask patients who have lived experience, what do they need and want?
- Difficult for doctors who often are blind to these bigger issues of living with or recovering from cancer treatment.

“ [Patients], beyond the actual treatment that they received, might not have the support [...] to take them on the patient journey. Who do they turn to? What sort of talking space do they have? And how can that differ in terms of the inequality of support networks available? Whilst some have families you may find others do not. ”

WHAT WAS DISCUSSED

Fragmented care

Dr Jackie Maybin - Clinical Sciences and Gynaecology

Prof Sara Macdonald - Sociology Primary Care

Challenge

- Protagonist: Link workers employed in non-clinical roles to listen to and support people with different conditions.

- Moment of need: Link workers have challenges in accessing multiple care providers when their time is fragmented and are taking on a major care burden.

Proposal

Lower the burden on link workers

- Find ways that directly aim to decrease the burden on link workers, by improving how services and information are delivered with them in mind.
- Ask people experiencing multimorbidity for their opinions on what would help their self-management of care or relieve this burden of care.

“ By focusing on link workers I think we would find people with a lot of knowledge and experience of what the challenges of invisible illnesses really mean in practice. ”

WHAT WAS DISCUSSED

Crisis in Research Direction

Dr Margaret Rose Cunningham - Pharmacology

Prof Nichol Keith - Oncology

Challenge

- Protagonist: A scientist or medical researcher

- Moment of need: How can researchers support the patients beyond the moment of care and take part in more patient-oriented research? There is a crisis requiring re-evaluation and reframing of research directions.

Proposal

Social enterprise for patient-centered research

- Bring more people around the table to collaboratively set the research agenda.
- Establish a charity or social enterprise for funding to support and nurture engagement between stakeholders and fund applications with a higher relevance for patients.

“ The other solution was understanding ourselves as researchers, and asking ourselves (if) more patient-oriented research is needed and, as a consequence, there's a reevaluation and reframing of directions. [...] where you've got more applications with higher relevance that can actually support [the patients]. ”

WHAT WAS DISCUSSED

Awareness of Alzheimers

Dr Bruce Tharp - Socio-cultural Anthropology & Design

General Practice & Primary Care

Challenge

- Protagonist: Mildly active middle-aged women

- Moment of need: To provide them with an awareness of the risk factors for Alzheimer's disease. How do we connect brain health with physical activity? We want to leverage people's understanding of how devastating Alzheimer's can be to get them to act.

Proposal

Reducing risk factors

- Link educational information to sportswear brands and retailers, who can incorporate the message into sales' pitches and advertising.
- Community walking activities for brain health, even if simply through the naming of walking clubs.
- Tap into campaigns linking brain health in ways that enable people to make a different connection between the brain and physical activity. The heart is connected to the brain = good for heart is good for brain.

“ Education is key, so how do we make this interesting and engaging? What [can be] different about this [message] than other public health campaigns to increase physical activity around physical health? ”

WHAT WAS DISCUSSED

Reducing risks of Dementia

Group 3A

Dr Fiona Kerr - Alzheimer's Disease

Dr Bruce Tharp - Socio-cultural Anthropology & Design

Challenge

- Protagonist: A middle-aged woman in her 50s with a "normal" lifestyle, before any symptoms and general awareness of Alzheimers manifest.

- Moment of need: A better understanding of the risks, and a will to take precautions, can reduce risk of developing Alzheimers. Implementing change is harder than education, especially for end of life, as these are things people don't want to think about.

Proposal

Engage to change

- It's about finding more engaging ways of communicating, for example, the link between cardiovascular health and the reduction in Alzheimers.
- Using mobile education units and interactive engagement rather than typical pamphlets or marketing campaigns
- Using intergenerational discussions.
- Designing an addition to fitness apps that connects miles walked to Alzheimers risk reduction, or smart wearables to link heart health with brain health.

“ There's a long invisible stage in terms of Dementia, (where) someone doesn't even know that it exists, many years before any symptoms will come about. And we understand a lot more about risk factors (...) there are things you can be doing to reduce your risks when you're in the mid stages of your life. ”

Summary

There was common acknowledgement of a lack of joined up thinking for patient-centred approaches across medical research, clinical services and support networks. Siloes or gaps were identified that place a burden on existing support services or left patient needs unmet. We aim to explore how partnerships and co-produced services across these siloes could add enormous value to the patient journey when coping with invisible illness.

WHAT'S NEXT?

The opportunity to bring such a valuable range of expertise, insight and disciplinary know-how together on this important topic of invisible illnesses has enabled us to identify opportunities for impactful collaboration. We aim to commission design-led briefs addressing these areas, inviting workshop participants to contribute, in order to develop mutual insights, innovation and tangible outputs for ways of seeing invisible illness, which will be used to release further funding for more substantial projects.

Stigma & Empathy

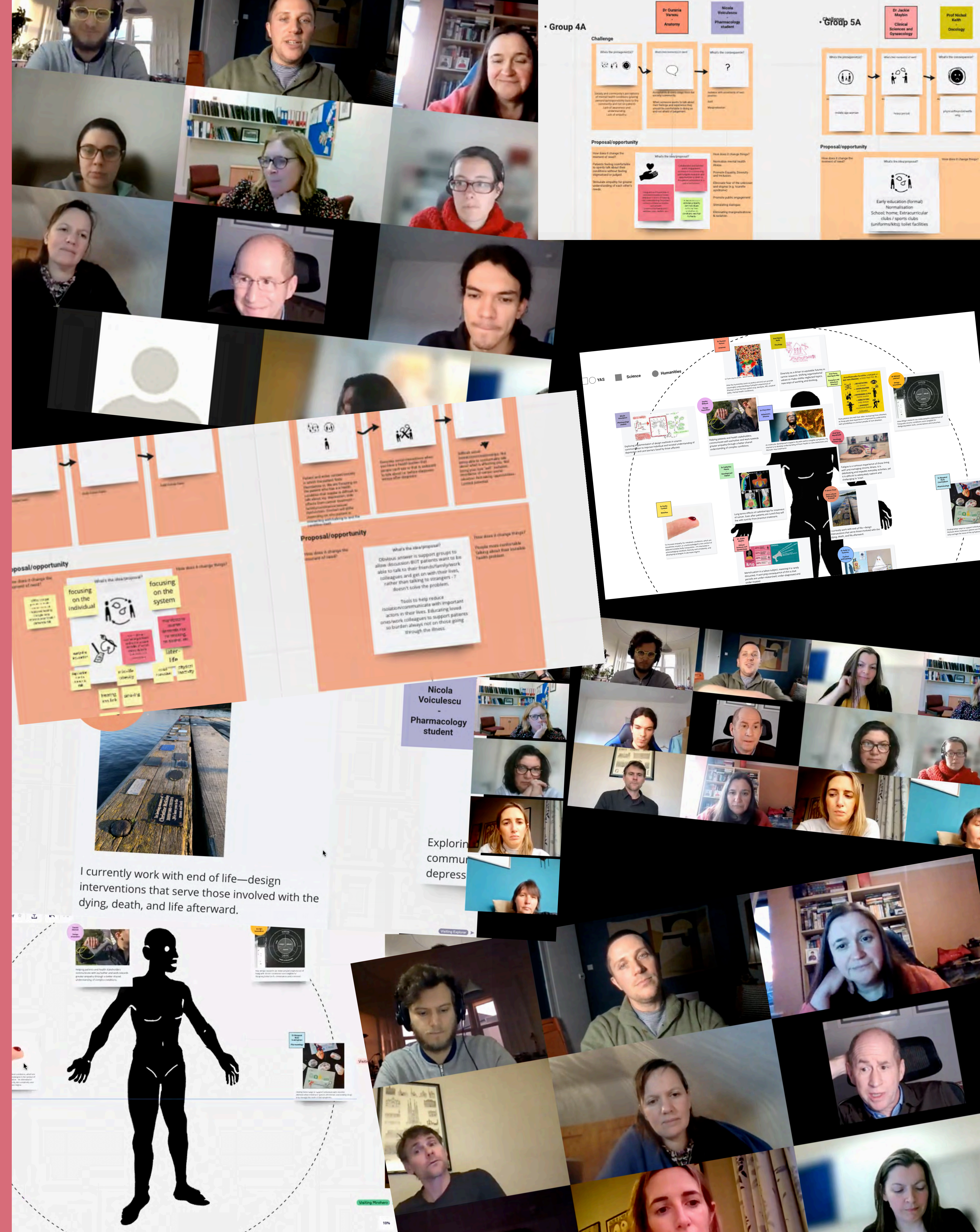
We would like to commission a videographer or audiographer to produce a video or podcast gathering interviews and insights on stigma & empathy across various invisible conditions presented through this workshop. Such a piece would aim to be public-facing, demonstrating how engaging patient voices can develop empathy as a route to change.

Positive Self-Identity

We would like to commission a fashion design student or team to explore positive self-identity in clothing for invisible conditions. This would bring design together with people living with invisible illness, and wider expertise, to explore and prototype what difference a self-expression through clothing can make.

Distributed Support

We would like to commission a service designer or team to prototype a social enterprise or charity that can collaboratively bridge research, clinical practice and support service siloes to innovate patient-centred care. This could focus on a particular condition for a pilot co-design approach, but would intend to learn how it could be applied across invisible conditions.

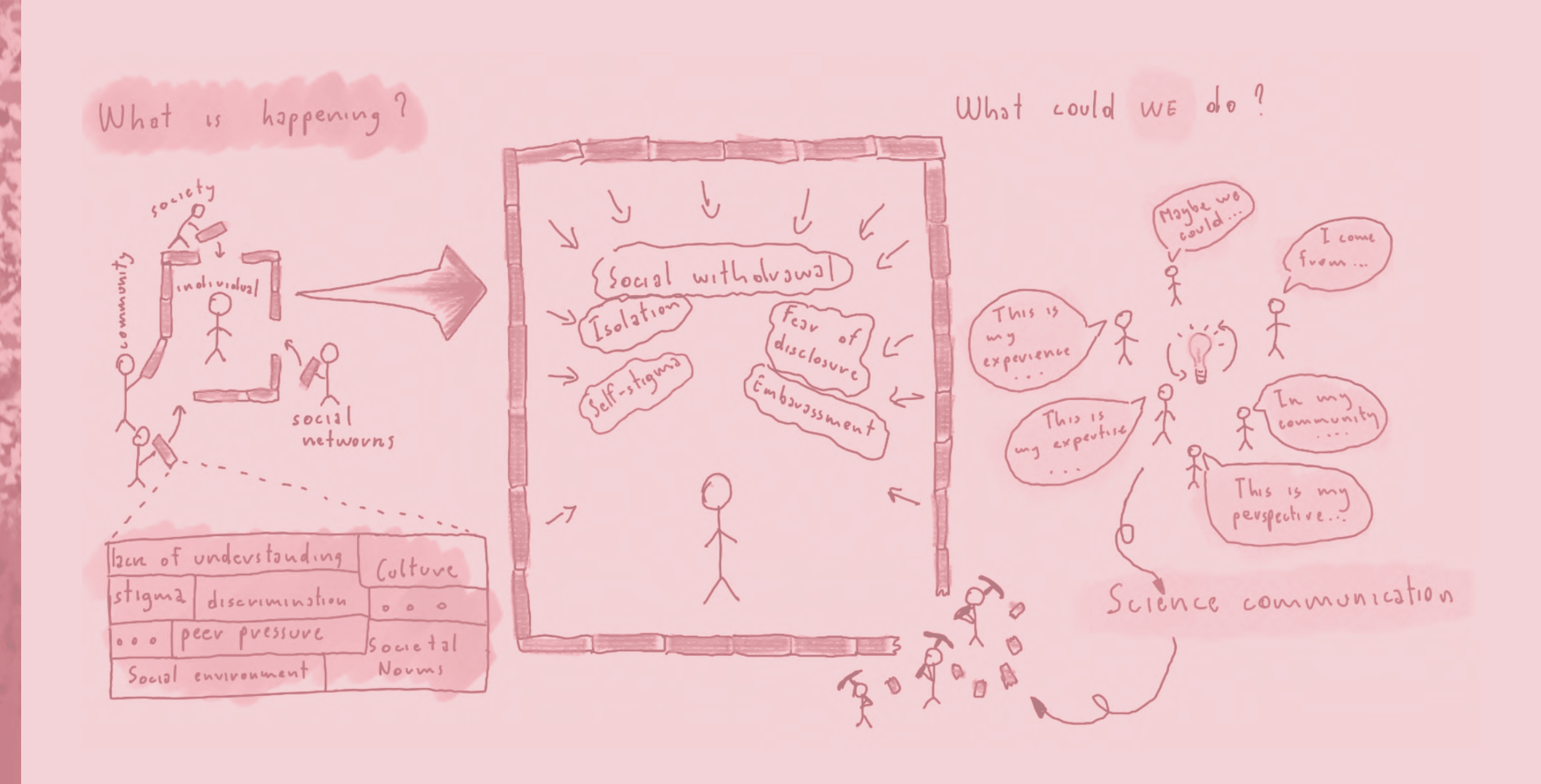
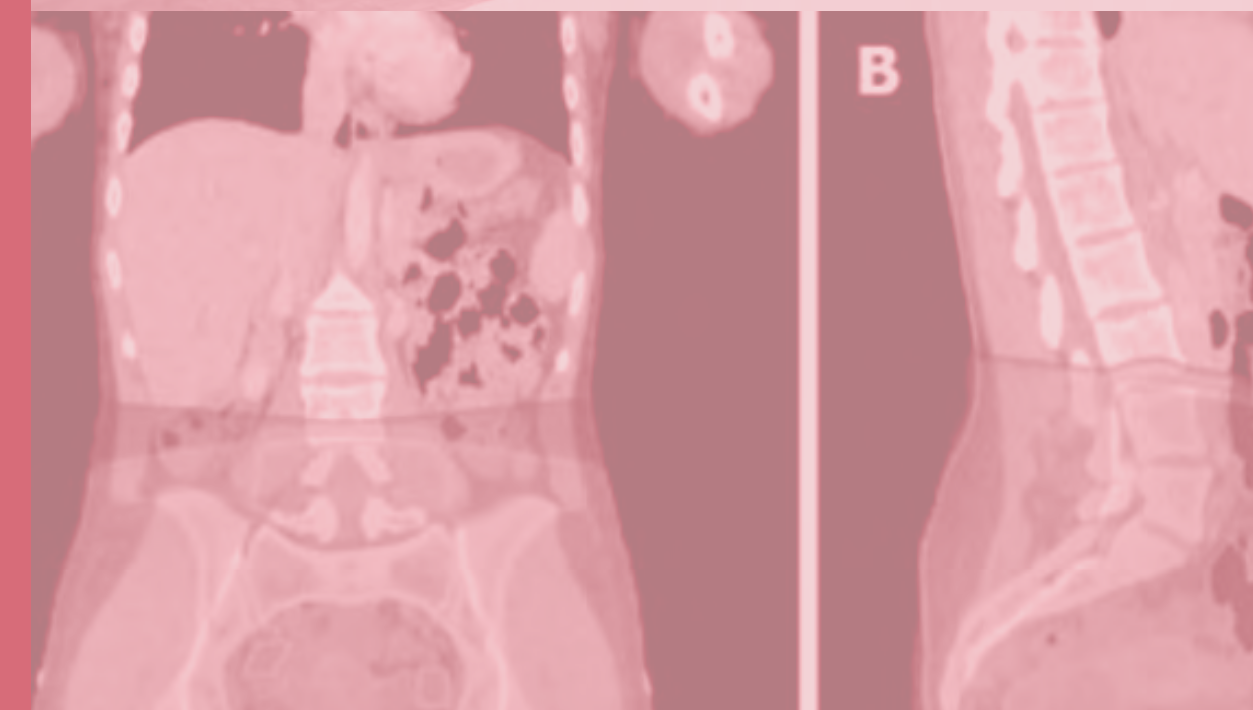


Relevant links:

More details about the Crossover Programme can be found at:
<https://www.gsainnovationschool.co.uk/post/crossover>

The original Crossover workshop details can be found at:
<https://www.gsainnovationschool.co.uk/project/crossover-workshop>

The Royal Society of Edinburgh Young Academy of Scotland:
<https://www.youngacademyofscotland.org.uk>



Acanthamoeba keratitis is not just an eye rare disease, is more than that, is ...

- **DEVASTATING** eye disease
- **EXCRUCIATING** pain disease
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AK Patient Advocate
Acanthamoebakeratitis.info

