



CANDDID

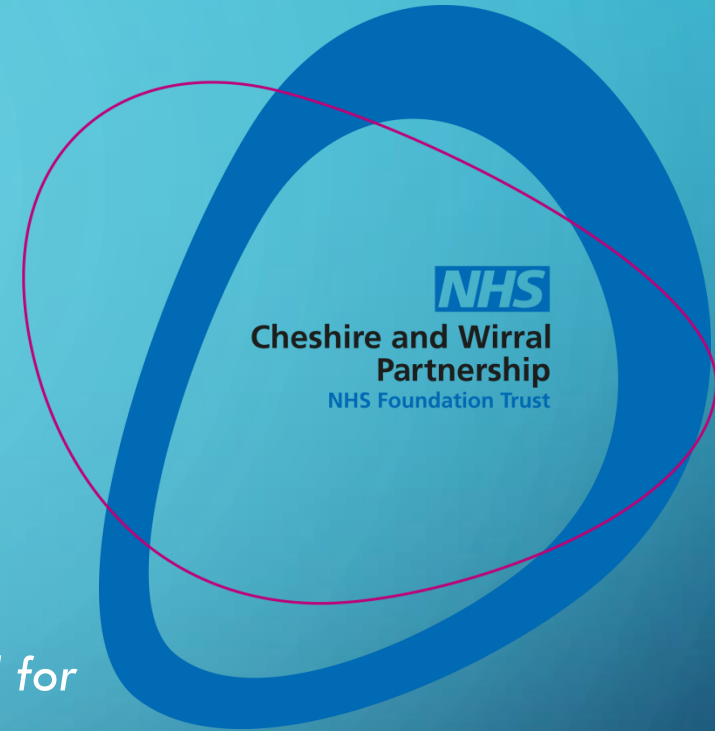
IMPROVING ACCESS TO HEALTHCARE FOR  
INDIVIDUALS WITH INTELLECTUAL DISABILITY  
USING VIRTUAL REALITY FOR BETTER ACCESS

*Danny Acton, clinical nurse specialist and research lead for  
intellectual disability*

*Gavin Williams, clinical nurse specialist*

*Prof Sujeet Jaydeokar, Consultant Psychiatrist and Director of  
Research Centre for Autism Neurodevelopmental Disorders and  
Intellectual Disability (CANDDID)*

*Cheshire and Wirral Partnership NHS Foundation Trust*



[www.canddid.nhs.uk](http://www.canddid.nhs.uk)

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Helping people to be  
the best they can be

# HOW DID IT ALL START?

Autistic person with intellectual disability with high levels of anxiety

Struggle in attending healthcare appointments

Interest in technology

Nursing initiative to look for solutions using technology

Is it possible to use virtual reality for high fidelity simulation of a healthcare appointment?

# WHAT IS THE PROBLEM THAT WE WERE TRYING TO ADDRESS?

People with an intellectual disability and health inequalities

Inequalities in accessing and receiving healthcare

Significant variation in the uptake of annual health checks

Difficulties experienced in attending healthcare appointments

# CURRENT APPROACHES

1

Reasonable adjustment checklists and hospital passports

2

De-sensitisation methods significantly improve access to healthcare

3

Approaches such as social stories using pictures show positive outcomes

4

However, these approaches have their limitations e.g. creating unique high-fidelity simulation

COULD VIRTUAL REALITY  
BASED APPROACHES BE  
USED TO IMPROVE  
ACCESS TO HEALTHCARE  
FOR PEOPLE WITH  
INTELLECTUAL  
DISABILITY?



# THE DEVELOPMENT OF VR







# HOW TO UTILIZE VR FOR OUR CLIENT GROUP

Challenges:

Trial and error

New skills new technology

Creating immersive experiences – initial time to complete.

Tailor to individual needs

Improving access for all

# VR TOUR DEVELOPMENT

360 IMAGES OF ENVIRONMENTS – CORRECT LIGHTING

– POSITIONING OF THE CAMERA

STITCHING IMAGES – CREATING 360 – BALANCING HORIZON

EDITING IMAGES – REMOVING ITEMS – ADDING TEXT + MENUS

– MERGING IMAGES - COLOUR CORRECTION

– IMAGE FORMATS – DIRECTIONS – PHOTO/VIDEO BOARDS

TOUR BUILDING – CONECTING THE IMAGES - INTERACTION – MENUS

– VIDEO PRODUCTION + EDITING – BACKGROUND SOUND





# 360 VIDEO CAPTURE



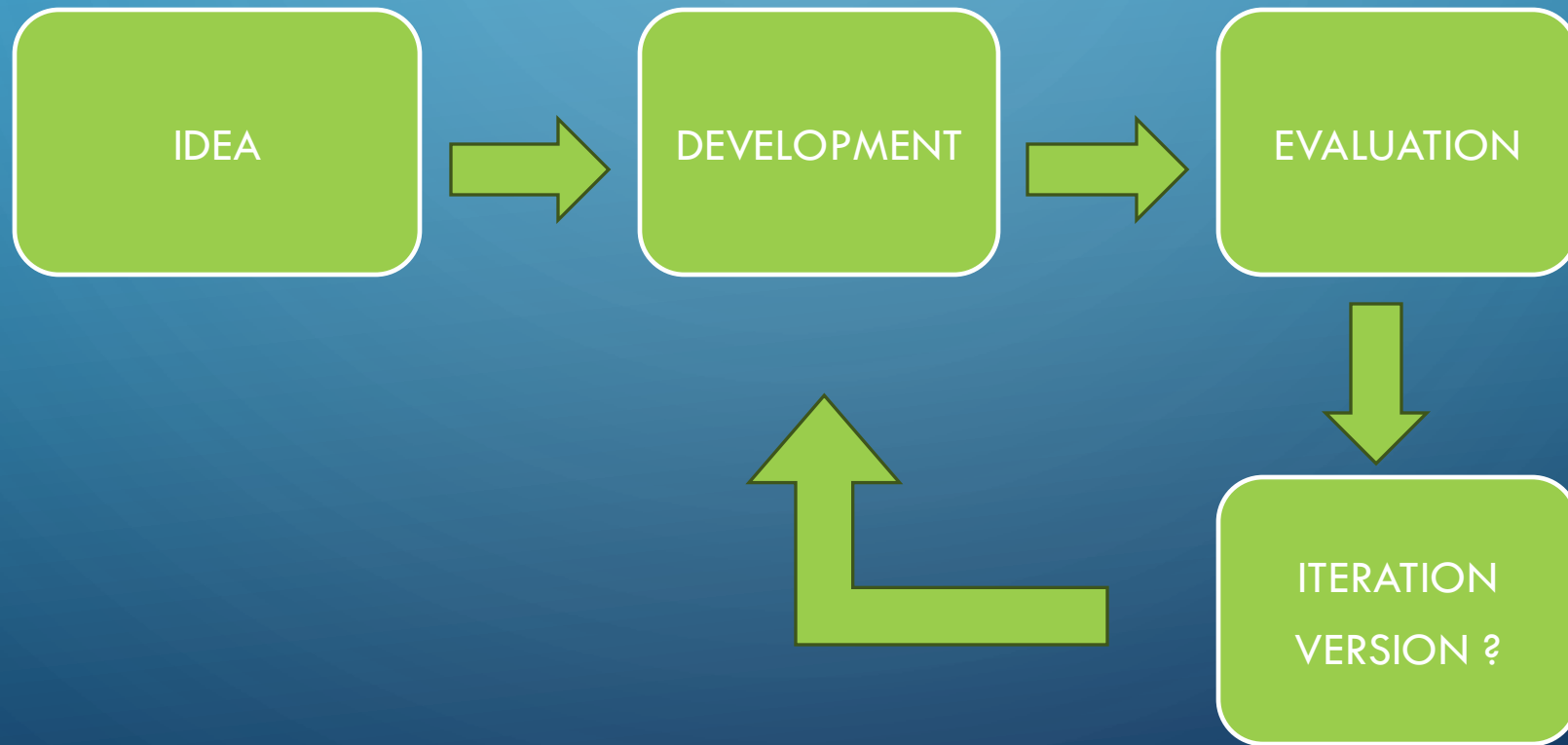
# 360 VIRTUAL TOUR CAPTURE

3 THINGS ABOUT YOU

THE BEST TOOL WE  
HAVE CREATED



# STUDY PROCESS





# INVOLVING PEOPLE WITH LIVED EXPERIENCE

## WP 1 Involvement groups

- 11 people with intellectual disability, 2 parent carers & 4 formal carers.
- Provided an opportunity to share thoughts and ideas.
- Understand the barriers and enablers.
- Facilitated by ID nurses

## WP 2 Co- production working groups

- Developing accessible materials
- Defining/selecting healthcare environments
- Discussions about the challenges of accessing healthcare.
- A lack of reasonable adjustments.

## WP 3 Development of the VR intervention

- Liaising with healthcare practitioners/managers
- Creating immersive videos – testing and re-testing.
- Obtaining agreement on content, interactability & engagement.
- Move to pilot VR intervention

## NEXT STEPS

- On-going development technology – refining products for ease of use and for higher fidelity
- Research and evaluation – feasibility for a RCT or a real-world pragmatic research approach
- Consider other possible applications such as: psychosocial dementia interventions, anxiety and sensory based interventions, desensitisation.



# QUESTIONS

