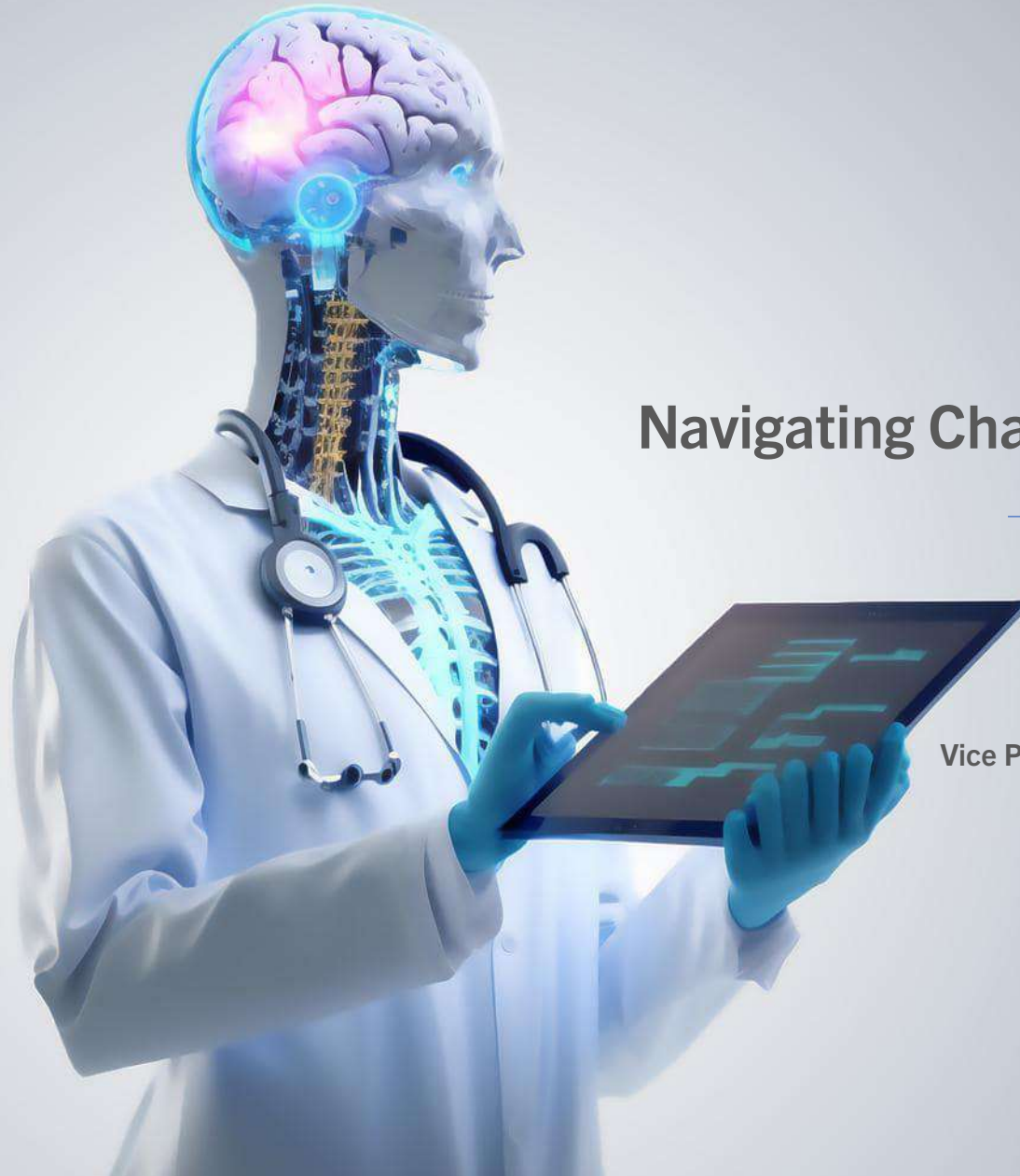




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NHS Foundation Trust

# TeenTech Transformations: Navigating Challenges and Pioneering Health Innovations

Professor Paul Dimitri

Professor of Child Health Technology  
Director, the NIHR HealthTech Research Centre in Paediatrics and Child Health  
Vice President for Science and Research, The Royal College of Paediatrics and Child Health



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Paediatrics and child health

# The Age of Digital Connectivity

- 86% of homes have online connectivity (75% mobile)
- 82% globally online every day
- 3.5 billion social media users
- The majority of adolescents (age 13-17) have access to smartphones (95%, 2023 data), desktop or laptop computers (90%), gaming consoles (83%), and tablet computers (65%)<sup>1</sup>
- 96% of teens are using the internet daily with 46% reporting high usage
- The median number of times that adolescents pick up their smartphones is 51 times per day, with 44% of older adolescents (age 16-17) picking up their smartphones more than 100 times per day

1. Anderson, M et al (2023). *Teens, Social Media and Technology, 2023*. Pew Research Center.  
2. Radesky, J., et al (2023). *Constant Companion: A Week in the Life of a Young Person's Smartphone Use*. Common Sense Media.

# Challenges in child health technology development

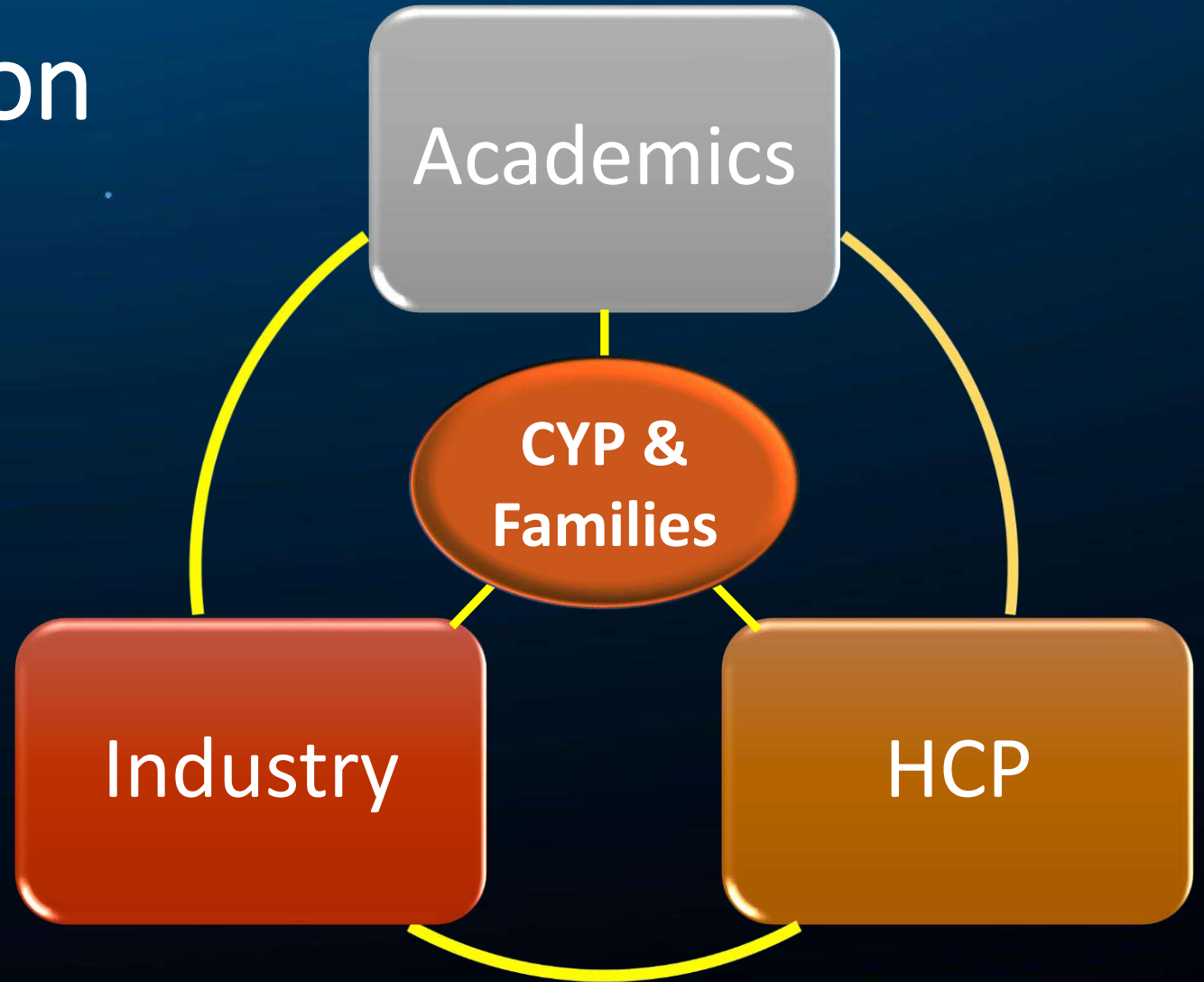
- **Viability** - great proportion of rare diseases
- **Scalability** - addressing adoption and spread
- **Transferability** - family unit to independence
- **Longevity** - long term application and risk of attrition
- **Over-commitment** - 61% adolescents report sometimes or often neglecting their daily obligations; 67% report sometimes or often losing sleep because of late-night internet usage<sup>1</sup>

1. Radesky, J., et al (2023). *Constant Companion: A Week in the Life of a Young Person's Smartphone Use*. Common Sense Media.

How does  
**social media**  
impact mental  
health?



# Wheel of collaboration



# Views of young people around health technology

## Labelling and identify

- Stigma
- Cyberbullying
- Inclusivity

## Accessibility

- Usability
- Financial Cost
- Access to Wifi
- School Rules

# Views of young people around health technology (2)



## Privacy

Data Sharing and  
Confidentiality

Being monitored or watched  
Control



## Trustworthiness and reliability

Fear of misinterpretation  
Discomfort or unease  
Responsiveness

# Recommendations from Young People

## Recognise

Recognise the importance of CYP having their own, unique, expert opinion that is distinct from those of their parents/ caregivers and healthcare professionals

## Ensure

Ensure any technology for use by CYP is age-appropriate and developmentally-appropriate

## Consider

When designing and developing technology for CYP to manage LTCs, consider the value CYP place on customising/ personalising

## Include

When developing and testing technology for CYP, include research that captures in- depth, detailed understanding of what CYP think about the technology (rather than satisfaction or simple acceptability scales).

# Recommendations from Young People

## Represent

When undertaking research about CYP's use of technology, consider whether your study participants represent the target end- users of the technology

## Appear

Carefully consider the appearance of the technology

## Balance

Consider that CYP need a balance between sharing information with peers, but not wanting to share with

## Incentivise

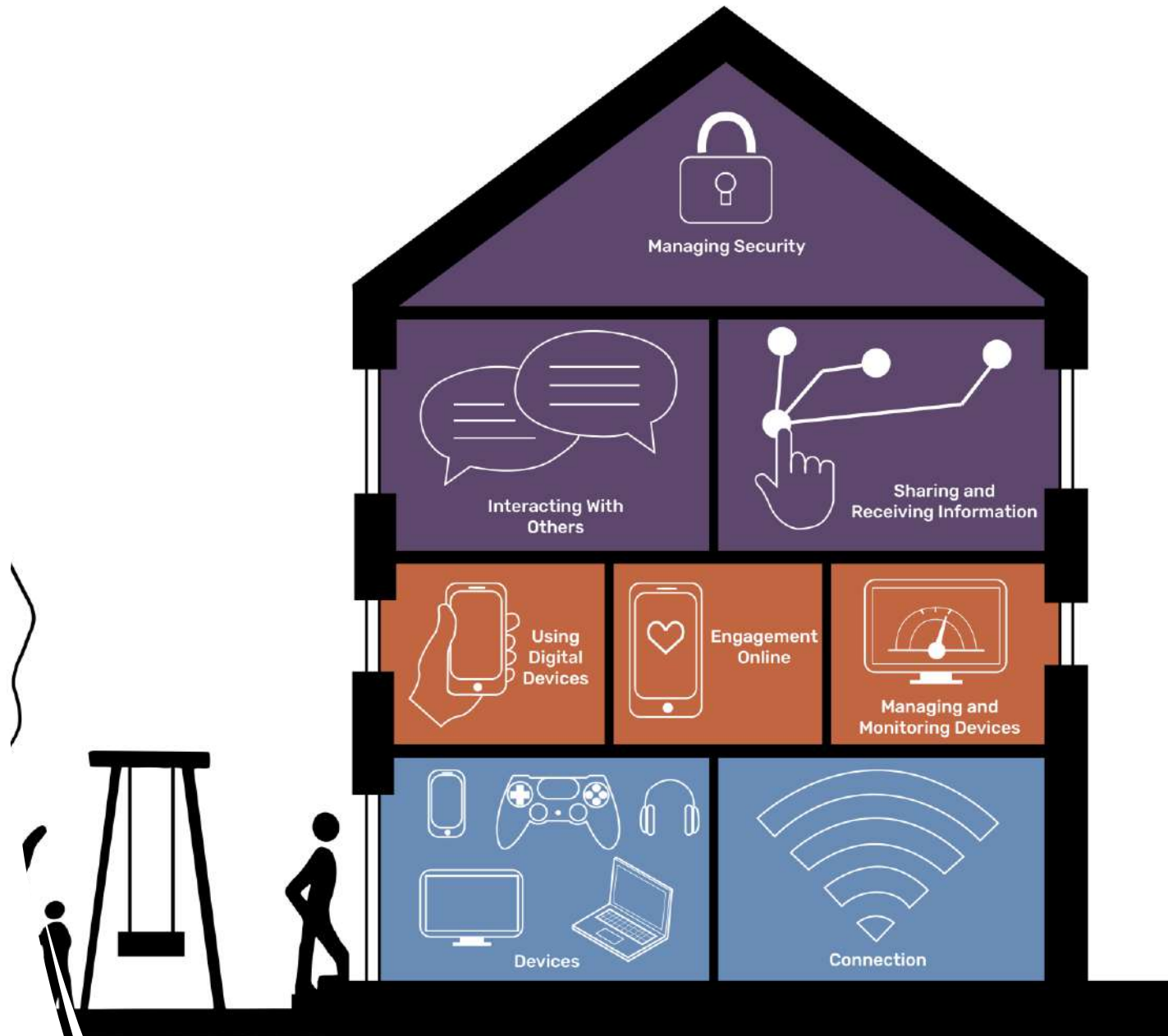
Consider the positive value that CYP place on gamification aspects and incentives

# The Minimum Digital Living Standard

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“A minimum digital standard of living includes, but is more than, having accessible internet, adequate equipment, and the skills, knowledge, and support people need. It is about being able to communicate, connect, and engage with opportunities safely and with confidence.”

<https://mdls.org.uk/>





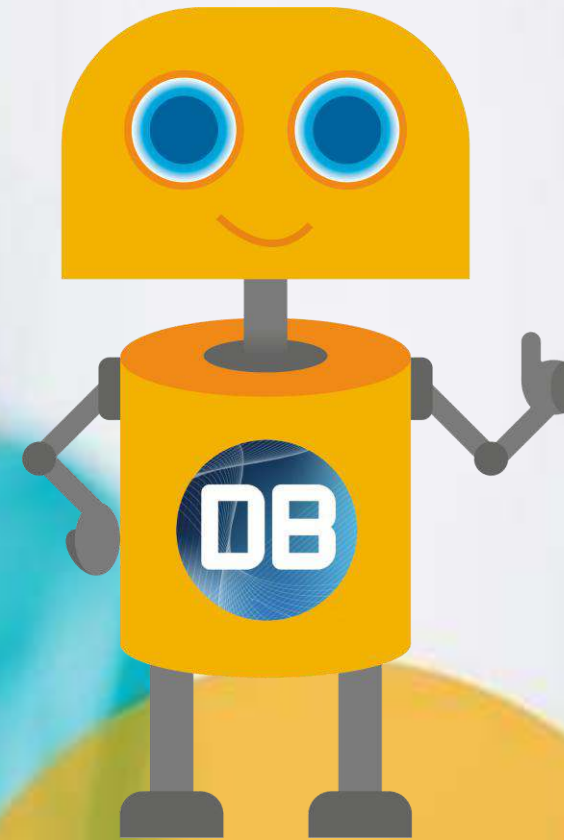
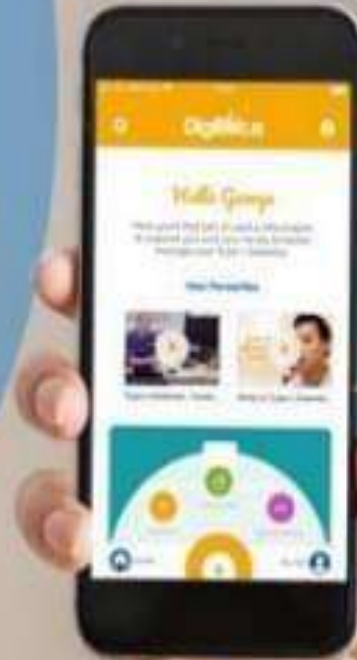
# Transition – The Precipice of Healthcare

*Orpin J, et al. J Child Health Care. 2023 Jun  
30:13674935231184919.*

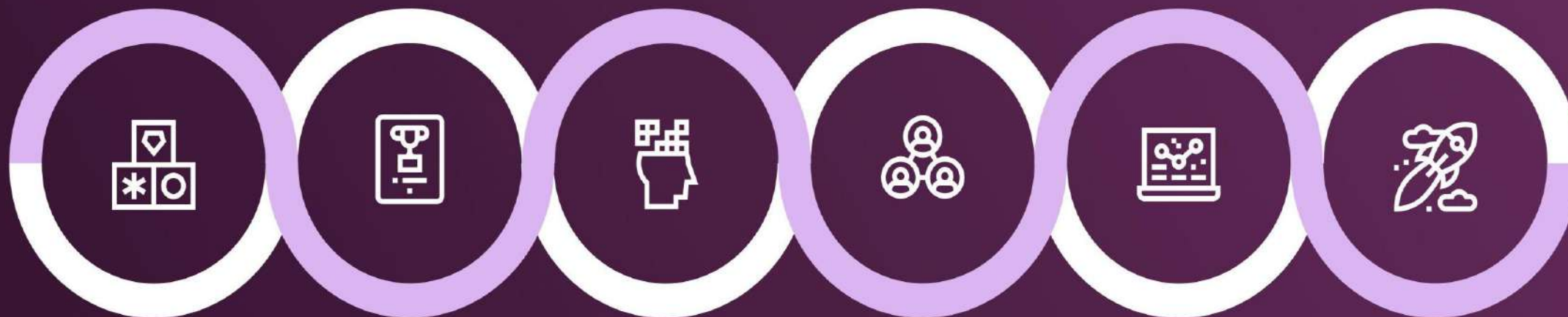


DigiBete is an online platform and app to support young people and their families to manage Type 1 diabetes.

Speak to your local diabetes care team to get your app access code.



# Gamification in healthcare



Engagement  
through play

Motivation and  
rewards

Problem-solving  
skills

Fostering  
collaboration

Tracking progress  
and growth

Setting and  
achieving goals







xploro<sup>®</sup>

# Digital mental health support

**NICE**

National Institute for  
Health and Care Excellence

- Lumi Nova (BfB labs)
- **Online Social anxiety Cognitive therapy for Adolescents (OSCA)**
- Online Support and Intervention for child anxiety (OSI).
- **Space from anxiety for teens, space from low mood for teens, space from low mood and anxiety for teens (Silvercloud).**
- The NICE committee believes the four technologies could offer a useful additional treatment option for around one million children and young people who may not be able to access current treatment or are on a waiting list and so not currently having treatment.
- **Early evidence suggests that digital CBT technologies may improve symptoms of anxiety for children and young people with mild to moderate symptoms of anxiety or low mood**

<https://togetherall.com/en-gb/>



# HELLBLADE™

SENUA'S SACRIFICE



Original Paper

# Framing Mental Health Within Digital Games: An Exploratory Case Study of Hellblade

Joseph Fordham<sup>1</sup>, MA; Christopher Ball<sup>2</sup>, PhD

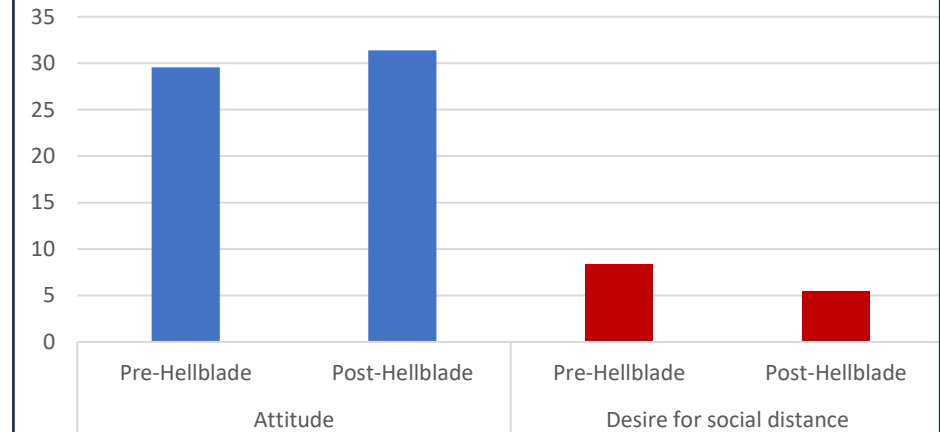
## Reducing Mental Health Stigma Through Identification With Video Game Avatars With Mental Illness



Arienne Ferchaud<sup>1\*</sup>, Jonmichael Seibert<sup>1</sup>, Nicholas Sellers<sup>2</sup> and Nivia Escobar Salazar<sup>1</sup>

This study examines how playing a video game featuring a player-character with mental illness can positively impact mental illness stigma. We hypothesized that interactive gameplay would positively predict transportation into the story world. Then, transportation would predict identification with the main character. This identification should then reduce stigma in two ways: by lowering stereotyping and limiting participants' desire for social distance. A two-factor, yoked experiment was designed utilizing *Hellblade: Senua's Sacrifice*, a game praised for its accurate portrayal of psychosis. The main character, Senua, suffers from psychosis and must navigate her quest along with her own mental

### Impact of Hellblade on perception of psychotic illness



Westhead M and Mason O  
(in preparation)  
A study of the impact of  
Hellblade in healthy volunteers

**Information, sounds and video – Courtesy of  
Professor Paul Fletcher, the University of  
Cambridge, UK**



Everything seems to be coming closer  
and bigger all the time.



Thank you, [@NinjaTheory](#), for Hellblade: Senua's Sacrifice. It saved my son's life. After playing it through, he asked to go to the hospital for help. He couldn't take everything he'd been dealing with & had a plan to kill himself. The game changed his plan. Thank you. ❤️

7:43 PM · Aug 12, 2018 · Twitter for iPhone

1,611 Retweets 258 Quote Tweets 6,226 Likes

· Aug 21, 2018

My boy is coming home from the hospital at the end of the week!! ❤️❤️❤️

❤️❤️❤️🙌🙌🙌🙌

I have missed him so much. ❤️





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ONLINE 11-12 JUNE 2025



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# Thank you

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