



Organised by:



HiMSS Europe



HiMSS CHIME
INTERNATIONAL

Child's Play: Using Digital Technologies to Influence Children's Behaviours

Behaviour change and mental health in children and young people: how can digital technology help?

Dr Bethan Davies, Research Fellow, NIHR MindTech HTC, The University of Nottingham, UK

 @NIHR_MindTech

10–12 May 2017 MALTA

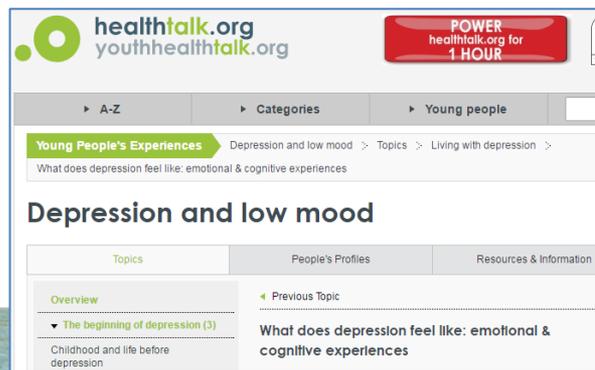
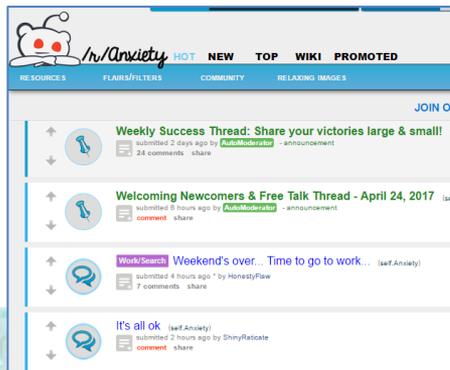
 @eHealthWeekEU #eHealthWeek

OVERVIEW

- Behaviour and mental health
- Technology in help-seeking behaviour
- Technology as self-help
- Technology to facilitate peer support and communication
- Technology as part of behaviour change interventions

WHAT DO WE MEAN?

‘Digital technology’ means lots of different technologies and processes in supporting young people’s mental health



BEHAVIOUR CHANGE IN MENTAL HEALTH

Many behaviours involved in managing mental health, including:

- **Help-seeking**
 - Communicating with others or acting in a way to result in gaining assistance for a health problem (Rickwood et al., 2005)
- **Self-help**
 - Techniques people independently use to manage their mental health
- **Peer support**
 - Communicating with others similar to you

USING DIGITAL TECHNOLOGY TO ASSIST HELP-SEEKING BEHAVIOUR

The issue: Young people find it difficult to talk to a professional about their mental health

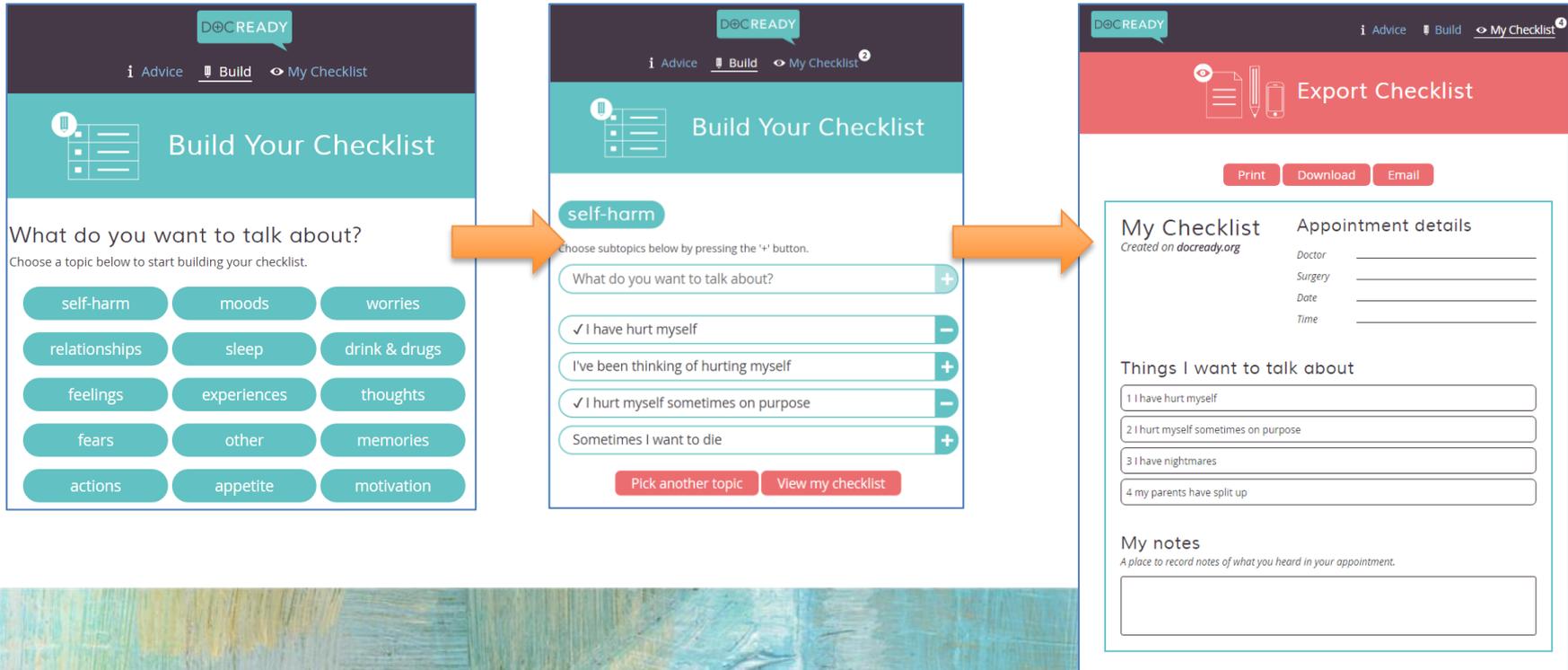
- Unsure how to begin
- Uncertainty about what to expect in appointment
- Don't know how a GP can help
- Forget what to say or forget to mention important things

A solution: 'Doc Ready' digital tool - www.docready.org

- Information about how GP can help
- Interactive checklist to help young people plan their appointment
- Developed in collaboration with young people



USING DIGITAL TECHNOLOGY TO ASSIST HELP-SEEKING BEHAVIOUR



The image shows three sequential screenshots of the DOCREADY app interface, illustrating the process of building a checklist. The app has a dark header with the logo and navigation icons for 'Advice', 'Build', and 'My Checklist'. The first screenshot shows the 'Build Your Checklist' screen with a grid of topic buttons. The second screenshot shows the 'self-harm' topic selected, with a list of subtopics and expandable options. The third screenshot shows the 'Export Checklist' screen with a list of items and a notes section.

DOCREADY

Advice Build My Checklist

Build Your Checklist

What do you want to talk about?
Choose a topic below to start building your checklist.

- self-harm
- moods
- worries
- relationships
- sleep
- drink & drugs
- feelings
- experiences
- thoughts
- fears
- other
- memories
- actions
- appetite
- motivation

self-harm

Choose subtopics below by pressing the '+' button.

- What do you want to talk about? +
- ✓ I have hurt myself -
- I've been thinking of hurting myself +
- ✓ I hurt myself sometimes on purpose -
- Sometimes I want to die +

Pick another topic View my checklist

DOCREADY

Advice Build My Checklist

Export Checklist

Print Download Email

My Checklist

Created on docready.org

Appointment details

Doctor _____
Surgey _____
Date _____
Time _____

Things I want to talk about

- 1 I have hurt myself
- 2 I hurt myself sometimes on purpose
- 3 I have nightmares
- 4 my parents have split up

My notes

A place to record notes of what you heard in your appointment.

USING DIGITAL TECHNOLOGY TO ASSIST HELP-SEEKING BEHAVIOUR

Survey with users (N=56): 36% **hadn't done anything** to prepare for appointment and 34% had **thought about** what they wanted to say

- Doc Ready **prompted a change in their behaviours** (preparing for appointment)

Reported benefits:

- **Helped get thoughts organized** for appointment
 - Building personal checklist helped this
 - Could do this **privately**
- **More knowledgeable** about patient rights
- Checklist kept them **focused in appointment** and **help feel in control**

(Simons et al., 2015)

 @eHealthWeekEU #eHealthWeek

Simons, L., Craven, M. & Martin, J. (2015). *Learning From The Labs 2: Evaluating Effectiveness*. Nottingham, NIHR MindTech Healthcare Technology Co-operative.

USING DIGITAL TECHNOLOGY FOR SELF-HELP

Young people prefer to resolve their problem themselves rather than through professional help

- They may like self-help, or might want to use it as part of self-management
- Developing autonomy and responsibility for own health
- May not be able to get professional help
- Interest in using digitalized self-help

(Farrand et al., 2006; Gulliver et al., 2010; Stallard et al., 2010)

USING DIGITAL TECHNOLOGY FOR SELF-HELP

Smartphone apps are one possible self-help tool

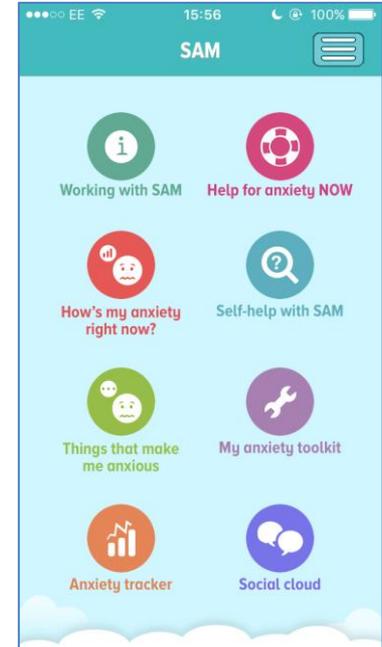
- Young people have high ownership of smartphones
- Apps are familiar format for young people
- Highly accessible
- Used independently
- Kept discreet

USING DIGITAL TECHNOLOGY FOR SELF-HELP

The issue: Anxiety is a prevalent mental health problem in young people, but reluctant to seek help

A solution: SAM ('Self-Help Anxiety Management') App – self-help app

- Self-monitoring of anxiety and triggers
- Semi-guided exercises to help alleviate or challenge anxiety
- Information about anxiety
- Social 'cloud' to connect with users



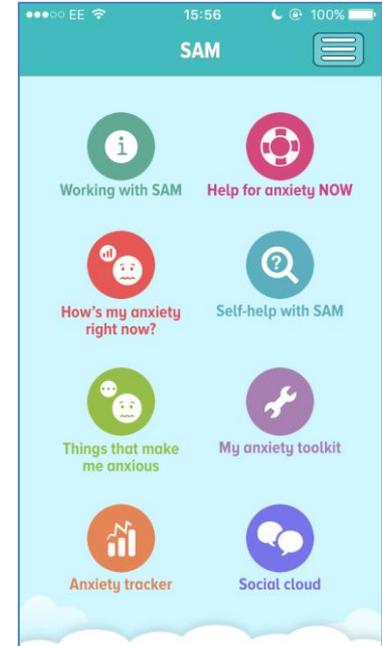
 @eHealthWeekEU #eHealthWeek

USING DIGITAL TECHNOLOGY FOR SELF-HELP

"My anxiety is slowly improving and using the app has allowed me to use better and improve on techniques I use to cope when I am anxious"

"I have been using SAM app coupled with my CBT therapy and I have found that both work together well to help me better manage my anxiety"

"SAM provided immediate relief when I was feeling particularly anxious, but I don't think it really helped overall"



 @eHealthWeekEU #eHealthWeek

USING DIGITAL TECHNOLOGY FOR PEER SUPPORT

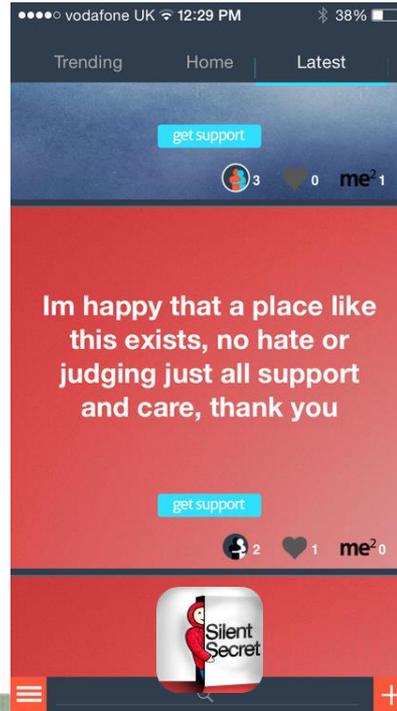
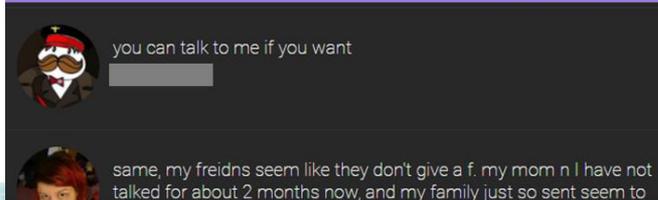
Young people with mental health problems may feel isolated and alone

- Online technologies allow them to connect with others:
 - Share experiences
 - Safe(r) spaces
 - Seek out information and advice
 - Give and receive emotional support



(Ali et al., 2015)

USING DIGITAL TECHNOLOGY FOR PEER SUPPORT



Twitter @eHealthWeekEU #eHealthWeek



DIGITAL TECHNOLOGIES TO SUPPORT BEHAVIOUR CHANGE

Number of health behaviours can be supported by digital technologies

- Self-monitoring and self-management
- Goal-setting
- Prompting

Wearable activity trackers for changing young people

- Component of intervention
- An emerging topic of research
- Engagement over time?

(Ridgers et al., 2016)



 @eHealthWeekEU #eHealthWeek

Ridgers, N.D., McNarry, M.A., & Mackintosh, K.A. (2016) Feasibility and Effectiveness of Using Wearable Activity Trackers in Youth: A Systematic Review. *JMIR Mhealth Uhealth*, 4 (4), e129.

DIGITAL TECHNOLOGIES TO SUPPORT BEHAVIOUR CHANGE

Physical activity intervention for children with T1 diabetes

- Doing physical activity with chronic condition can be challenging
- Learning that they're in charge of managing health
- Children with T1DM may lack confidence to do physical activity

Steps to Active Kids with Diabetes intervention

- Website providing education about T1, physical activity tracking, goal setting, video-based activity routines
- Coupled with wearable activity tracker – encourage activity monitoring and goal setting (Blake et al., 2016)



 @eHealthWeekEU #eHealthWeek

Blake, H., Quirk, H., Leighton, P., Randell, T., Greening, J., Guo, B., & Glazebrook, C. (2016). Feasibility of an online intervention (STAK-D) to promote physical activity in children with type 1 diabetes: protocol for a randomised controlled trial. *Trials*, 17: 583.

HAVE YOU GOT QUESTIONS ABOUT USING DIGITAL TECHNOLOGY FOR MENTAL HEALTH PROBLEMS?

We are leading a national survey to give people the opportunity to direct future research into digital technologies for mental health.

We are interested in hearing from people with mental health problems, people who support/care for others with mental health problems and health and social care professionals.



If you would like to add your questions, please visit
www.mindtech.org.uk/digitalMHQ

 @eHealthWeekEU #eHealthWeek

eHealth week

Organised by:



In collaboration with:

HiMSS Europe



HiMSS CHIME
INTERNATIONAL

Thank you!

Dr Bethan Davies, Research Fellow, NIHR MindTech HTC, The University of Nottingham, UK

 @NIHR_MindTech

10–12 May 2017 MALTA

 @eHealthWeekEU #eHealthWeek