

October 2022

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Digital solutions have the potential to support the mental health (MH) of children and young people (CYP) and their families at a time when demand on services is growing.

To help increase capacity and achieve better outcomes, the NHS has recognised it needs help to identify and harness the best of the ever-expanding array of digital innovations from assessment through therapeutic interventions to ongoing support and prevention.

The Buckinghamshire, Oxfordshire and Berkshire West (BOB) Integrated Care System (ICS) asked the Oxford Academic Health Science Network to scope the available digital support options as part of a wider commitment to improve the mental health of children and young people in collaboration with service providers.

This report is the result of this scoping exercise which featured extensive engagement with young people, clinicians and developers from the health tech industry. The Oxford AHSN team undertook an audit of 24 digital tools and solutions, including assessments of current usage, interoperability, user experience, and cost and fit with NHS strategic priorities. The report is based on a snapshot taken in mid-2022 and presents the information available at that time about each product consistently without judgement or recommendation.

There are many opportunities for digital solutions to be adopted throughout CYP MH pathways, enhancing traditional services, widening access and enhancing self-care. The greatest opportunities relate to accessing support at an early stage.

This report can be used by healthcare systems to support commissioning decisions. The Oxford AHSN is well placed to carry out detailed evaluation of the most promising innovations which best fit patient needs ahead of wider adoption.





In 2021 the Integrated Care System (ICS) in Buckinghamshire, Oxfordshire and Berkshire West (BOB) highlighted the improvement of Children and Young People mental health (CYP-MH) as one of its named priorities. As a programme of activities emerged for CYP-MH one of the clear opportunities identified was how could we strengthen our digital offer to CYP and their families. A CQC review of CYP-MH services across the ICS (2021) highlighted that significant progress in the utilisation of digital options had already been made, partly accelerated by COVID-19 as well as innovations by the provider Trusts to meet needs and workforce challenges. Services were keen to build on these developments further, and to explore the added opportunities of doing this as a system.

We know that digital offers are not going to solve all our problems and feedback from CYP is that whilst they like the option and choices digital solutions give, this approach should not be the only way of helping them when they need it. So, knowing all this the BOB CYP mental health programme team sought to understand how driving change and improvement using digital solutions could be materialised.

The opportunity to partner with the Oxford AHSN was well timed as we needed help with understanding the full local offer(s) as well as the extent of the existing and potential market opportunities nationally in order to plan well. Being able to work with a partner comfortable with both the NHS mental health and digital world gave us confidence to complete this piece of work. We particularly appreciated the flexibility AHSN brought to the process to meet our needs and importantly the joint agreement to engage with CYP and Clinicians to ensure our work and thinking would help.

This report outlines the detail and learning from the process and our next challenge is to use this useful piece of work to impact our offer to support CYP and families. Our commitments include building an ICS based self help platform that gives CYP and their parents / carers options to access digital apps and tools that meet needs, help contain escalating concerns and support therapeutic interventions.

We also aim to organise stronger commissioning and purchasing arrangements as an ICS of the digital assessment and treatment offers from the growing wealth of providers in the market. We are keen to see initial successful use of digital providers as alternatives for our staff that have been tested from the four week wait pilot, COVID responses and service initiatives cemented into our core long term offer. We aim to create a reasonable balance of face to face and digital provision alongside commissioned-at-distance provision to increase our capacity to meet need and offering choice to CYP and their families.

#### Andy Fitton

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Mental Health conditions have become more common in children and young people (CYP). The Health Foundation analysis "Children and young people's mental health; COVID-19 and the road ahead" reported that in 2022 'among those aged 6 to 16 in England, one in six had a probable mental health condition in 2021, an increase from one in nine in 2017.<sup>1</sup>

A COVID report from Kooth showed an increase in sleep issues (161%), loneliness (63%) and self-harm (29%) based on data from over 75k users aged 11-25². YoungMinds surveyed 2,000 children and 83% agreed that the pandemic had made their mental health worse³.

According to NHS Digital monthly mental health statistics, over 350,000 CYP were in contact with CYP's mental health services in the month of November 2021, the highest number ever recorded<sup>4</sup>.

The average wait for a child to receive support from specialist mental health services in 2020 was 53 weeks, however, this average significantly masks regional variation and has been further exacerbated by the pandemic<sup>5</sup>. In addition to this, spend on Children and Young People (CYP) services varies vastly with more than a third of children referred not accepted for treatment.

The inclusion of digital solutions and pathways is needed to enable more people to seek treatment, get in touch and stay engaged if they need to get more help. From identification of emotional dysfunction to accessing specialist services, there are many examples across the country where digital support services have made a difference to help the NHS reach waiting list targets as well as improve recovery rates and outcomes in all areas. Digital services are not intended to replace traditional services but do provide support across the patient pathway, before, during and after specialist treatment.

In November 2021, Oxford AHSN was approached by Buckinghamshire, Oxfordshire and Berkshire West (BOB) Integrated Care System (ICS) to support their workstream for transforming services for CYP's mental health, driving change and improvement using digital options and solutions.

Oxford AHSN began a scoping exercise by undertaking an audit of digital tools and options currently being used in BOB, those used elsewhere, and horizon scanning for emerging suppliers and technology. Our approach is outlined here.





This report details the digital solutions that were discovered by Oxford AHSN and presented to BOB ICS for their consideration as part of a shortlisting process. The audit of suitable solutions was undertaken between December 2021 and March 2022. Initially intended as an exploratory exercise to understand what solutions were currently being used, further work was subsequently undertaken which included meeting with all willing suppliers and developers of digital products to gather more information to support potential procurement.

We acknowledge that digital mental health is a fast moving, innovative space with emerging developments in approach and scope. This is certainly true of digital solutions that have been designed to be used by adults, and we would like to acknowledge that the suppliers of these solutions are keen to work with CYP's services as well, to develop solutions that best fit the needs of the patient. We have found, through our extensive research, that there are many solutions that would potentially work across both adult and child services and developers are keen to ensure that development is conducted in collaboration with service providers.

Oxford AHSN does not endorse any technology outlined in this report. This information has been collated from public websites, discussions with service leads and users, and demonstrations from digital solutions providers. This report is intended as a resource which collects comparable information – as gathered at July 2022 – in one place so that commissioners and clinicians might draw on this information to make decisions and to engage in further discussions with providers.

"The NHS Long Term Plan makes a renewed commitment to improve and widen access to care for children and adults needing mental health support<sup>6</sup>."



# Scoping digital support for children and young people's mental health Needs based assessment – The Thrive Framework for System Change



The THRIVE Framework conceptualises the mental health and wellbeing needs of children, young people and families into five needs-based groupings. This means that mental health needs are defined by the children, young people and their families, alongside professionals, through shared decision making, rather than being based on severity, diagnosis, or care pathways.

By providing a set of principles for creating coherent and resource-efficient communities of mental health and wellbeing for CYP and using language that everyone understands, it was imperative that the audit used the same principles to categorise solutions.







ORCHA, the Organisation for Review of Care and Health Applications, review health applications to ensure that digital applications are appropriately evaluated and accredited, aligning digital health standards and regulations to ensure safe and secure digital adoption. ORCHA maintain the largest health app library working across the globe and were enlisted by NHS Digital in 2018 to increase the number of clinically-approved tools available on the NHS Apps Library.

ORCHA can also create locally targeted and branded app libraries in collaboration with NHS services to ensure that clinically assessed and age-appropriate digital aids are recommended and that patients have one place to go for their digital health needs that they can trust. An example of this is the Best for You website which was developed with NHS providers in Central and West London. ORCHA also work in schools and educational settings for both physical and mental health.

ORCHA also provide support, advice and guidance for app developers, helping them to understand the regulatory landscape and how to create the best app for their target demographic.



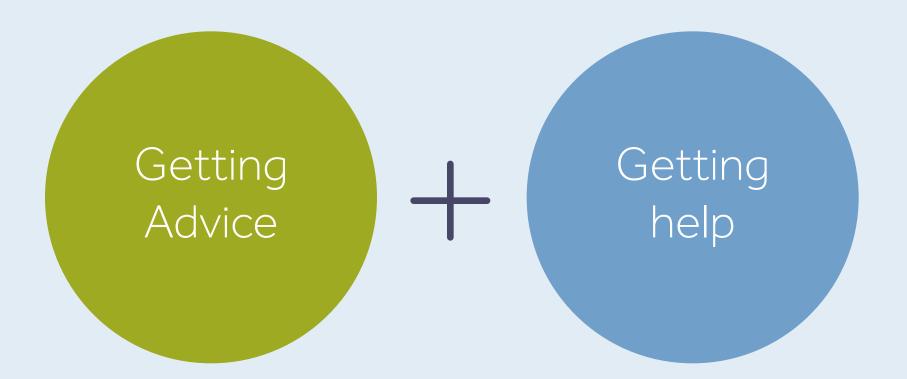


# Support for those who need advice and signposting and those who may need focused goal-based input.

In this section we focus on digital solutions that can support children, young people and families adjusting to life circumstances, with mild or temporary difficulties where the best intervention is within the community with the possible addition of self-support. This group may also include those with chronic fluctuating or ongoing severe difficulties for which they are choosing to manage their own health and/or those who are on the road to recovery.

#### Our observations about tools in this section

These solutions tend to be mobile applications with little or no Health Care Professional (HCP) interaction or those that prefer a peer support model. They are self-help or self-prescribed.









# Calm

The Thrive Framework Getting Advice



How to access: Self-referral Age: Over 13 Cost: Cost to patient/Cost to service Known Geography: Berkshire Healthcare CAMHS Anxiety and Depression Team

Meditation, sleep and relaxation app, developed by academic researchers and clinicians to ensure content is clinically sound and effective. This app was also recommended by the young people we spoke to via the youth boards in Oxfordshire and Buckinghamshire.

#### Conditions or symptoms



Anxiety Low Mood Insomnia **Emotional dysregulation** 



Depression ADHD and/or ASD Eating disorder Sef-harm or harming others

## Support model



Stand alone



Peer support Moderated Indirect access to HCP Direct access to HCP

# Technology



**ORCHA Score:** 80%



Medical Device: I or II DTAC DCB0129

#### Evidence



Case studies/real world evaluation



**RCT** 



Pilot or proof of concept NICE endorsed

#### Other features









CalmHarm

The Thrive Framework Getting Advice

Getting Help

How to access: **Self-referral** Age: **Over 13** Cost: **Free** 

Known Geography: Berkshire Healthcare CAMHS Anxiety and Depression Team

Developed with STEM4, uses Dialectical Behavioural Therapy (DBT) to help teenagers resist and manage the urge to self-harm.

#### Conditions or symptoms



Anxiety Depression Low Mood Emotional dysregulation Sef-harm or harming others



ADHD and/or ASD Eating disorder

# Support model



Stand alone



Peer support Moderated Indirect access to HCP Direct access to HCP

## Technology



**ORCHA Score:** 71%



Medical Device: or II DTAC DCB0129

#### Evidence



Pilot or proof of concept





Case studies/real world evaluation NICE endorsed RCT

#### Other features



Education/CBT





## Product analysis



# **CBTi**





How to access: Self-referral Age: No restrictions Cost: Free

Known Geography: Berkshire Healthcare CAMHS Anxiety and Depression Team

Aimed at people who are already engaging in CBT with a health care professional and experiencing insomnia. Started for war veterans but has content that can help children.

#### Conditions or symptoms



#### Insomnia



Anxiety Depression Low Mood Emotional dysregulation Sef-harm or harming others ADHD and/or ASD Eating disorder

## Support model



Stand alone



Peer support Moderated Indirect access to HCP Direct access to HCP

## Technology



**ORCHA Score:** Not available

Medical Device: I or II DTAC DCB0129

#### Evidence



#### None available

Case studies/real world evaluation NICE endorsed RCT

#### Other features



#### **Education/CBT**





## Product analysis



# Clear Fear

The Thrive Framework Getting Advice

Getting Help

How to access: **Self-referral** Age: **11-19** Cost: **Free** 

Known Geography: London and BOB

Developed by Dr Nihara Krause, a Consultant Clinical Psychologist in collaboration with young people, this STEM4 self-guided app uses CBT to manage their anxiety. Focusses on relaxing and breathing techniques and emotional expression and regulation through journaling and self-monitoring, allowing users to track their progress.

#### Conditions or symptoms



Anxiety



Depression Low Mood Emotional dysregulation Sef-harm or harming others Insomnia ADHD and/or ASD Eating disorder

# Support model



Stand alone



Peer support Moderated Indirect access to HCP Direct access to HCP

# Technology



**ORCHA Score:** 67%

**DCB0129** 



Medical Device: I or II DTAC

#### Evidence



Pilot or proof of concept



RCT in progress





Case studies/real world evaluation NICE endorsed

#### Other features



**Education/CBT** 





## Product analysis



# Headspace

The Thrive Framework Getting Advice





How to access: Self-referral Age: Over 13 Cost: Cost to patient / Cost to service Known Geography: Berkshire Healthcare CAMHS Anxiety and Depression Team

Science backed guided meditation and mindfulness tools, proven to reduce stress by 14% in 10 days.

This app was also recommended by the young people we spoke to via the youth boards in Oxfordshire and Buckinghamshire.

#### Conditions or symptoms



Anxiety Low Mood Insomnia **Emotional dysregulation** 



Depression ADHD and/or ASD Eating disorder Sef-harm or harming others

# Support model



Stand alone



Peer support Moderated Indirect access to HCP Direct access to HCP

## Technology



**ORCHA Score:** 80%



Medical Device: or II DTAC DCB0129

#### Evidence







Pilot or proof of concept Case studies/real world evaluation NICE endorsed

#### Other features









# Kooth

The Thrive Framework Getting Advice

Getting Help

How to access: Self-referral / Via HCP Age: Over 10 Cost: Cost to service

Known Geography: Over 100 CCGs across the country, including Bucks and Berkshire West

Different engagement methods to suit everyone, drop-in sessions, support in between sessions, activity centre for education and CBT, peer support and anonymous forums. Counsellors are from lots of different backgrounds. Well evidenced and used. Robust risk profiling and escalation system.

#### Conditions or symptoms



Anxiety Depression Low Mood **Emotional dysregulation** Insomnia



Sef-harm or harming others ADHD and/or ASD Eating disorder

# Support model



Peer support Moderated Indirect access to **HCP** 



Stand alone Direct access to HCP

## Technology



**ORCHA Score:** Not available

Medical Device: I or II DTAC DCB0129

#### Evidence



Case studies/real world evaluation



**RCT** 



Pilot or proof of concept NICE endorsed

#### Other features



**Education/CBT** 









# Mindshift CBTi

The Thrive Framework Getting Advice

Getting Help

How to access: Self-referral Age: 16 and over Cost: Free

Known Geography: Oxford Health

Mindshift uses CBT to help young people take charge of their anxiety by promoting healthier thinking. Includes a variety of CBT based tools including; quick relief to help tackle anxiety fast, a community forum, thought journal, coping cards to help readjust thinking, belief experiments to test out beliefs that fuel anxiety and comfort and chill zones.

#### Conditions or symptoms



Anxiety



Depression Low Mood Emotional dysregulation Sef-harm or harming others Insomnia ADHD and/or ASD Eating disorder

# Support model



Stand alone



Peer support Moderated Indirect access to HCP Direct access to HCP

## Technology



**ORCHA Score:** 77%



Medical Device: or II DTAC DCB0129

#### Evidence



Case studies/real world evaluation





Pilot or proof of concept NICE endorsed RCT

#### Other features



**Education/CBT** 









# Molehill Mountain

The Thrive Framework Getting Advice

Getting Help

How to access: Self-referral Age: Over 13 Cost: Free

Known Geography: Berkshire Healthcare CAMHS Anxiety and Depression Team

Funded by Maudslay Charity. App to help people with autism understand and manage anxiety.

#### Conditions or symptoms



Anxiety **Autism** 



Depression Low Mood Emotional dysregulation Sef-harm or harming others Insomnia ADHD and/or ASD Eating disorder

# Support model



Stand alone



Peer support Moderated Indirect access to HCP Direct access to HCP

## Technology



**ORCHA Score:** 68%



Medical Device: or II DTAC DCB0129

#### Evidence





Pilot or proof of concept Case studies/real world evaluation NICE endorsed

#### Other features



**Education/CBT** 





## Product analysis



# Mood Move

The Thrive Framework Getting Advice

Getting Help

How to access: **Self-referral** Age: **13+** Cost: **Free** 

Known Geography: Berkshire Healthcare CAMHS Anxiety and Depression Team

Developed by Dr Nihara Krause, a Consultant Clinical Psychologist in collaboration with young people, this STEM4 app uses a Behavioural Activation Framework to help increase motivation to change. Helps young people to define goals and set activities to reduce avoidance of situations that may induce depression and low mood.

#### Conditions or symptoms



Anxiety Depression Low Mood **Emotional dysregulation** 



Sef-harm or harming others Insomnia ADHD and/or ASD Eating disorder

## Support model



Stand alone



Peer support Moderated Indirect access to HCP Direct access to HCP

## Technology



**ORCHA Score:** 70%

**DCB0129** 



Medical Device: I or II DTAC

#### Evidence



Pilot or proof of concept





Case studies/real world evaluation NICE endorsed RCT

#### Other features



**Education/CBT** 









# Moodwise

The Thrive Framework Getting Advice

Getting Help

How to access: **Self-referral** Age: **16-25** Cost: **Free** 

Known Geography: Pilot in Suffolk County Council supported by Eastern AHSN

Signposting/central repository where young people (16-25) can go to find useful national and local resources. Supports anxiety, depression, stress, anger and loneliness. No data collected all content NHS approved and quality assured.

#### Conditions or symptoms



Anxiety Depression Low Mood **Emotional dysregulation** Insomnia



Sef-harm or harming others ADHD and/or ASD Eating disorder

# Support model



Stand alone



Peer support Moderated Indirect access to HCP Direct access to HCP

## Technology



**ORCHA Score:** Not applicable

Medical Device: I or II DTAC DCB0129

#### Evidence



Pilot or proof of concept Case studies/real world evaluation NICE endorsed RCT

## Other features





## Product analysis



# Rio Mood Diary

The Thrive Framework Getting Advice

Getting Help

How to access: Via HCP Age: Unknown Cost: Cost to service

Known Geography: Berkshire Healthcare

Developed by Totalmobile to integrate with Rio Electronic Patient Records system. Provides an alternative to paper safety plans and gives an easy way to record how the young person feels at any given time via the mobile app. This creates a historical record of feelings for both the young person and healthcare professional so triggers and coping mechanisms can be identified. Young people are onboarded by HCP so they are able to access their safety plan, this adds the human element of ensuring the right person is being linked with the right record.

#### Conditions or symptoms



Anxiety Depression Low Mood **Emotional dysregulation** 



Insomnia ADHD and/or ASD Eating disorder Sef-harm or harming others

# Support model



Indirect access to **HCP** 



Stand alone Peer support Moderated Direct access to HCP

# Technology



**ORCHA Score:** Not applicable

Medical Device: I or II DTAC DCB0129

#### Evidence



Case studies/real world evaluation





Pilot or proof of concept NICE endorsed RCT

#### Other features





#### Product analysis



# Smiling Mind

The Thrive Framework Getting Advice

Getting Help

How to access: Self-referral Age: All ages Cost: Free

Known Geography: Berkshire Healthcare CAMHS Anxiety and Depression Team

Developed by Australian psychologists and educators to make mindfulness meditation accessible to all. It 100% not for profit & includes an extensive library of mindfulness programs for all ages and purposes. Not for profit organisation.

#### Conditions or symptoms



Anxiety Depression Low Mood **Emotional dysregulation** Insomnia Mindful Eating



Sef-harm or harming others ADHD and/or ASD Eating disorder

# Support model



Stand alone



Peer support Moderated Indirect access to HCP Direct access to HCP

# Technology



**ORCHA Score:** 76%



Medical Device: or II DTAC DCB0129

#### Evidence







Pilot or proof of concept Case studies/real world evaluation NICE endorsed

#### Other features



Parent/carer interface Clinical interface/ dashboard



Education/CBT Assessment/clinical decision support Bespoke content possible?







Telmi (formerly known as MeToo)

The Thrive Framework Getting Advice

Getting Help

How to access: Self-referral / Via HCP Age: 11-25 Cost: Free Known Geography: Warwickshire, Staffordshire and London

Social enterprise. Organisations can create their own portals to create service directories and signposting. Team of super-peers ensures that every post gets a good responses, moderators check content and counsellors if issues need escalating or specialist advice. Tellmi (formerly known as MeToo) insights provides aggregate data insights to the commissioner to identify key themes, helping to support development of relevant resources and signposting. Discourse available for teachers and counsellors.

## Conditions or symptoms



Anxiety Depression Low Mood **Emotional dysregulation** Insomnia ADHD and/or ASD Eating disorder

## Support model



Peer support Moderated Indirect access to HCP Direct access to HCP



Stand alone

# Technology



**ORCHA Score:** 81%



Medical Device: I or II DTAC DCB0129

#### Evidence



Case studies/real world evaluation



**RCT** 



Pilot or proof of concept NICE endorsed

#### Other features



Education/CBT Parent/carer interface Bespoke content possible?



Clinical interface/ Assessment/clinical decision support



## Product analysis



# Virtual Hopebox

The Thrive Framework Getting Advice

Getting Help

How to access: Self-referral Age: All ages Cost: Free

Known Geography: Oxford Health OSCA Buckinghamshire

Simple tools to help patients with coping, relaxation, distraction, and positive thinking.

Patients and providers can work together to personalise content which includes photos, videos and sound clips. Helps teach TIPP technique. Also seems to have been developed initially for war veterans.

#### Conditions or symptoms



Anxiety Depression Low Mood **Emotional dysregulation** Sef-harm or harming others Mindful Eating



Insomnia ADHD and/or ASD Eating disorder

## Support model



Stand alone



Peer support Moderated Indirect access to HCP Direct access to HCP

## Technology



**ORCHA Score:** Not available

Medical Device: or II DTAC DCB0129

#### Evidence







Pilot or proof of concept Case studies/real world evaluation NICE endorsed

#### Other features



Education/CBT





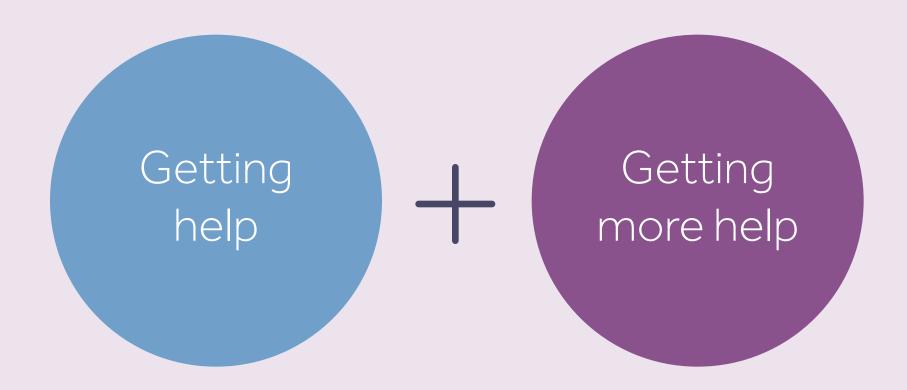


# Support for those who need focussed, goals-based input and those who need more extensive specialist goals-based help.

In this section we focus on digital solutions that can support children, young people and families who would benefit from more focused, evidence-based interventions with clear aims and criteria for assessing whether these aims have been achieved. It encompasses those young people and families who would benefit from extensive intervention. This grouping might include children with a range of overlapping needs that mean they may require greater input, such as the coexistence of autistic spectrum disorder (ASD), major trauma, or broken attachments.

#### Our observations about tools in this section

These solutions tend to be digital platforms that support both patients and clinicians. They can support the entire patient journey and help services to manage demand and capacity as well as providing treatment to patients. These solutions are generally prescribed by an HCP, alongside traditional therapies. Many solutions that provide services for adults are willing to work directly with Mental Health services to develop a platform for children and younger people.









# Blue ICE

How to access: Via HCP Age: Under 18 Cost: Cost to service

Known Geography: Buckinghamshire FCAMHS

Prescribed, evidence-based app to help young people manage their emotions and reduce self-harm.

Includes a mood diary, toolbox of evidence-based techniques to reduce distress and automatic routing to emergency numbers if urges to harm continue. Developed by Paul Stallard at Oxford Health.

#### Conditions or symptoms



Anxiety

Depression

Low Mood

Insomnia

**Emotional dysregulation** 



ADHD and/or ASD Eating disorder Sef-harm or harming others

## Support model



Moderated Indirect access to HCP



Peer support Direct access to HCP Stand alone

## Technology



**ORCHA Score:** Not available

Medical Device: I or II DTAC DCB0129

#### Evidence



Case studies/real world evaluation



Pilot or proof of concept





NICE endorsed

#### Other features



**Education/CBT** 





# Product analysis



# Florence

How to access: Via HCP Age: Over 13 Cost: Cost to service

Known Geography: NHS Tameside & Glossop, Highland, Gateshead, South Tyneside & Sunderland

Persona based messaging service, using mixed communication modes, licences are provided to patients either via their GP practice or specialist services. Flo also works with people who attend support groups, Flo is like a friend checking in with the young person, providing reminders to appointments and encouragement along the way. Interoperable with SystmOne.

#### Conditions or symptoms



Anxiety Depression Low Mood Insomnia ADHD and/or ASD **Emotional dysregulation** Sef-harm or harming others



Eating disorder

## Support model



Moderated Indirect access to HCP



Peer support Direct access to HCP Stand alone

# Technology



**ORCHA Score:** 

56% Medical Device: I or II DTAC DCB0129

#### Evidence



Case studies/real world evaluation





Pilot or proof of concept NICE endorsed RCT

#### Other features



Education/CBT Clinical interface/ dashboard Bespoke content possible - Yes



Parent/carer interface Assessment/clinical decision support



# Product analysis



# Healios

How to access: Via HCP Age: Under 25 Cost: Cost to service

Known Geography: Buckinghamshire CAMHS, Oxfordshire CAMHS, Berkshire Healthcare Neurodiversity Team CAMHS

Specialist online multi-disciplinary teams and specialist treat patients directly via Healios online consultation platform (Panacea) working in collaboration with local services to reduce waiting times for CYP. Requires NHS referral. Think Ninja is a stand alone patient app available for children over 10 years old, ORCHA score relates to Think Ninja.

#### Conditions or symptoms



Anxiety Depression Low Mood Insomnia ADHD and/or ASD **Emotional dysregulation** Sef-harm or harming others



Eating disorder

## Support model



Moderated Direct access to HCP



Peer support Indirect access to HCP Stand alone

## Technology



**ORCHA Score:** 79%

DCB0129



Medical Device: I or II DTAC

#### Evidence



Case studies/real world evaluation



**NICE** endorsed





Pilot or proof of concept RCT

#### Other features



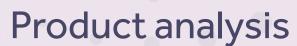
Education/CBT

Parent/carer interface Clinical interface/ dashboard Assessment/clinical decision support



Bespoke content possible?







# Minddistrict

How to access: Via HCP Age: Over 10 Cost: Cost to service

Known Geography: Oxfordshire CAMHS and Sussex Partnership NHS Foundation Trust

Treatment platform and app that supports personalisation of content to be fully flexible to service requirements.

RESTful API provides the ability to be interoperable with systems already in use locally.

Minimum dataset is collected from all patients every week to allow tracking of progress and feeds into the escalation pathway.

#### Conditions or symptoms



Anxiety Depression Low Mood Insomnia ADHD and/or ASD **Emotional dysregulation** Sef-harm or harming others Personality disorders (STEPPS - EI)



Eating disorder

# Support model



Moderated Indirect access to HCP Direct access to HCP



Peer support Indirect access to HCP Stand alone

## Technology



**ORCHA Score:** 80% Medical Device: I or II



**DCB0129** 

DTAC

#### Evidence



**NICE** endorsed



**RCT** 



Pilot or proof of concept Case studies/real world evaluation

#### Other features

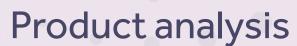


Education/CBT Parent/carer interface Clinical interface/ dashboard Bespoke content possible?



Assessment/clinical decision support







# Monsenso

How to access: Via HCP Age: Over 16 Cost: Cost to service

Known Geography: Over 10,000 users in mainland Europe, 4 local authorities in the UK.

Patient app that supports tracking of multiple symptoms and plots them against each ither to better understand triggers. Functionality includes journals to prepare and reflect on previous sessions and evaluation outcomes. Ability to message a triage service or direct to HCP. HCP can access patients journals and send reminders to patients e.g. take medications or they have an appointment coming up to prepare for. Also interacts with smart wearables and devices such as sleep mats and scales.

# Conditions or symptoms



Anxiety Low Mood Insomnia **Emotional dysregulation** Depression ADHD and/or ASD



Eating disorder Sef-harm or harming others

## Support model



Moderated Indirect access to HCP Direct access to HCP



Peer support Indirect access to HCP Stand alone

## Technology



87% Medical Device: I or II **DCB0129** 

**ORCHA Score:** 



DTAC

#### Evidence



Case studies/real world evaluation



**RCT** 



Pilot or proof of concept NICE endorsed

#### Other features



Education/CBT Parent/carer interface Clinical interface/ dashboard Bespoke content possible



Assessment/clinical decision support







# MyCognition ED

Cognitive fitness app, designed predominantly for schools to improve students' capacity to learn through personalised cognitive fitness assessment and training game.

Using MyCQ scores the games adapts to the individual playing it, identifies areas of improvement and builds in content to fit. Service (normally academic) can access patient and aggregated data to demonstrate impact.

#### Conditions or symptoms



Depression
Anxiety
Emotional dysregulation
ADHD and/or ASD
Eating disorder
Learning difficulties & special education



Low Mood Insomnia Sef-harm or harming others

## Support model



Moderated



Peer support
Stand alone
Indirect access to HCP
Direct access to HCP

## Technology



ORCHA Score:
79%

Medical Device:I or II



DTAC
DCB0129

#### Evidence



Case studies/real world evaluation



Pilot or proof of concept





NICE endorsed RCT

#### Other features



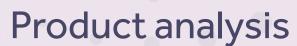
Education/CBT

Parent/carer interface
Clinical interface/
dashboard
Assessment/clinical
decision support



Bespoke content possible?







# SilverCloud

How to access: Via HCP Age: Over 10 Cost: Cost to service

Known Geography: 75% of NHS IAPT services including Oxford Health and Berkshire Healthcare.

Patients are signed up the programme by GP whilst waiting to be seen by a specialist. The programme assesses level of need, triages and signposts to evidence based resources with support as indicated. Also access to educational resources and CBT through modular packages, supporting setting of goals and tracking mood. Interoperable with IPATUS, Family Mental Health programmes available as well as guides for parents.

#### Conditions or symptoms



Anxiety Depression Low Mood Insomnia ADHD and/or ASD **Emotional dysregulation** Sef-harm or harming others



Eating disorder

## Support model



Moderated Indirect access to HCP Direct access to HCP



Peer support Indirect access to HCP Stand alone

# Technology



**ORCHA Score:** 85% Medical Device: I or II



DTAC DCB0129

#### Evidence



Case studies/real world evaluation



**NICE** endorsed



RCT Link



Pilot or proof of concept

#### Other features









# Togetherall

Established in 2007 as 'Big White Wall', the service is registered with CQC. A global 24/7 online community of people how have been through similar experiences that are moderated by trained clinical professionals. Community thrives on peer support and provides access to useful resources and CBT courses, content can be defined by the commissioner and at individual level. Self-referral but only available if commissioned. GP can prescribe.

#### Conditions or symptoms



Anxiety
Depression
Low Mood
Insomnia
Emotional dysregulation
Sef-harm or harming others



ADHD and/or ASD Eating disorder

# Support model



Peer support

Moderated
Indirect access to HCP
Direct access to HCP



Stand alone

# Technology



ORCHA Score: 87% Registered medical



device

DTAC DCB0129

#### Evidence



Case studies/real world evaluation



RCT Link



Pilot or proof of concept NICE endorsed

#### Other features



Education/CBT
Parent/carer interface
Bespoke content
possible



Clinical interface/ dashboard Assessment/clinical decision support







# **WYSA**

How to access: Self-referral Age: Over 13 Cost: Cost to service

Known Geography: North West London, Vita Health, Dorset Healthcare, Fulham MIND

Al chatbot that improve mental health through mood tracking, mindfulness exercises and anxiety support tools. Available 24/7.

#### Conditions or symptoms



Anxiety Depression Low Mood Insomnia

Emotional dysregulation Self-harm or harming others



ADHD and/or ASD Eating disorder

## Support model



Moderated Indirect access to HCP



Peer support Stand alone Direct access to HCP

## Technology



**ORCHA Score:** 92%

Registered medical device **DCB0129** DTAC

#### Evidence



Case studies/real world evaluation

**RCT** 



Pilot or proof of concept NICE endorsed

#### Other features



Education/CBT Parent/carer interface Bespoke content possible



Clinical interface/ dashboard Assessment/clinical decision support







# Xyla Digital therapies

How to access: **Via HCP** Age: **5 - 25** Cost: **Cost to service** Known Geography: **Somerset, Southwark, East London** 

Digital talking therapies that are fully integrated with local services as a delivery partner. Full visibility of records in a non-clinical language for children, young people and their families allowing flexibility to book own appointments. Supports neuro diversity. Captures Routine Outcome Measures for every intervention, allowing consistent reporting on outcomes. Interoperable with SystmOne.

#### Conditions or symptoms



Anxiety
Depression
Low Mood
Insomnia
ADHD and/or ASD
Emotional dysregulation



Eating disorder
Sef-harm or harming others

## Support model



Moderated
Indirect access to
HCP
Direct access to HCP



Peer support Stand alone

## Technology



ORCHA Score:
Not Applicable
Registered medical
device
DCB0129



DTAC

#### Evidence



Case studies/real world evaluation

RCT



Pilot or proof of concept NICE endorsed

#### Other features



Education/CBT
Parent/carer interface
Clinical interface/
dashboard



Assessment/clinical decision support
Bespoke content possible



# Scoping digital support for children and young people's mental health Other useful apps



The following apps were identified during the youth board meetings we attended. In most cases they don't have clinical input or evidence of improving outcomes, so they haven't been included in the main body of the report. However, they have been recommended by young people as potentially supportive, positive tools. We would like to thank the youth boards in both Oxfordshire and Buckinghamshire for their valued input into our findings.

What is it called?	What do the developers say about it?	What do the users say about it?	How can I access it?
Be Real	Your friends for real. Every day at the same time, everyone in your friendship groups captures at photo in 2 minutes and posts. You can't see what everyone else is doing unless you post yourself.  Real life without filters.	4.8/5 on Apple (106.2k reviews) 4.4/5 on Google (27.5k reviews	iOS Android
Catch It	Catch it is a joint project between the Universities of Liverpool and Manchester, to help users better understand their moods through use of an ongoing diary. Catch it - University of Liverpool	3.7/5 on Apple (7 reviews) 3.5/5 on Google (167 reviews)	iOS Android
Daily bean	Simple diary app for those who want to record their daily lives easily.  Monthly calendar gives a glimpse of your mood flow using 5 mood beans.	4.9/5 on Apple (18.7k reviews) 4.5/5 on Google (8.85k reviews)	iOS Android
Forest	An app that helps you stay focussed on the important things in life. Whenever you want to stay focussed, plant a tree. Your tree will grow while you focus on your work.	4.8/5 on Apple (30.8k reviews) 4.7 on Google (497k reviews)	iOS Android
Obimy	Obimy is an app which gives a different way to pay attention and feel care of close ones without text messages/pictures/video https://obimy.com/	4.4/5 on Apple (1.1k reviews) 4.3/5 on Google (7.9k reviews)	iOS Android
Reflectly	Journal utilising AI to help structure and reflect upon daily thoughts and problems. A personal mental health companion. Reflectly - A Journal for Happiness	4.6/5 on Apple (80.8k reviews) 4.2/5 on Google (40.2k reviews)	iOS Android
Worry Tree	Developed by a young person after being diagnosed with Generalised Anxiety Disorder to help other people take control of their worries. Worry Tree (worry-tree.com)	4.5/5 on Apple (2 reviews) 4/5 on Google (149 reviews)	iOS Android





# Ourfindings

There is a vast array of digital solutions available to support CYP with their mental health. These range from self-service solutions supporting young people at the beginning of their mental health journey to entire solutions that host a complete digital pathway from identification and referral through to treatment and self-management as an outpatient.

Evidence of outcomes is varied, with some solutions having a robust evidence base including randomised controlled trials and real-world evaluation. Clinical input into the development of solutions appears to be more consistent. However, evidence of co-creation with CYP is varied.

Our findings suggest that it is this variation in the way that solutions have been developed and assessed, along with the sheer volume of solutions available, that can be overwhelming and confusing when deciding which is the best fit, both as a young person and as a mental health service. We also found that significant resource is required for trusts to keep abreast of new and changing digital solutions. From the young person's perspective, a search for 'anxiety' in an app library returns over 100 results with varying feedback. This can be a cause for further anxiety, given the overwhelming choice on offer.

A recommendation from our engagement with both service providers and users was to have a trust approved repository or library of digital solutions.

Another barrier, identified through our clinical engagement sessions, was the lack of clarity around, or knowledge of, procurement and governance processes at a trust level.

A recommendation from our engagement with service providers is to have clear and easy to follow processes within Trusts to procure and use digital solutions including governance, staff resources and support.

It would appear, through discussion with both clinicians and young people, that there are many opportunities throughout the pathway for digital solutions to be introduced or adopted. However, the greatest need appeared to be at the beginning of the pathway, in prevention, early help, identification and triage, giving CYP earlier access to support and, in turn, reduce burden on waiting lists.





There was significant appetite among clinicians to have a single, entirely digital pathway sitting alongside the traditional pathway. This would support patients from initial engagement with their GP, through to referral, triage, treatment, and self-management. An example of this is the Dedalus solution which is currently in use in North Staffordshire Combined Healthcare NHS Trust.<sup>7</sup>

A recommendation from our engagement with service providers is to appoint a digital lead for CAMHS and identify clinical (digital) champions. It is important that clinical leads and champions are identified early in the procurement process for new digital solutions. This will ensure that clinical staff and colleagues are well supported when adopting new approaches and to offer confidence for those who are less comfortable with technology.

7https://www.dedalus.com/ anz/perspectives/northstaffordshire-combinedhealthcare-nhs-trust/

Through our detailed discussions with suppliers of digital solutions, we found that almost all of those that provide an integrated solution (one that can be used by both clinician and patient) can be developed to be bespoke to a service's needs. Indeed, most suppliers would prefer this approach to the procurement of their off-the-shelf solutions and would actively appreciate further, future collaborations with health trusts and clinicians.

Our clinical engagement sessions found that whilst there was some concern that digital solutions may exacerbate inequalities in mental health care provision, all clinicians saw a need or role for digital solutions in supporting their existing pathways. It was also clear that the introduction of a digital pathway should always run concurrently with traditional services and not replace them.

Through our comprehensive discussions with CYP, clinician and service managers and digital solution suppliers, it is our opinion that when digital solutions are applied in this setting as intended, they can improve and widen access to care for CYP needing mental health support.

For more detail on our findings from our engagement sessions, please refer to Our approach.





# Next steps – further scope

# Conformance to Trust strategies and policies

We have not looked at whether the digital solutions listed conform to any particular requirements of the two trusts involved – involving digital / information leaders early is paramount.

# Digital exclusion

Digital solutions risk exacerbating inequalities in mental health care provision where suitable access to the internet is not available, or where there are privacy issues due to types of housing provision for example. Ensuring equality of access to services needs to be considered wherever digital solutions are to be adopted.



# How can the AHSN network help?



# How can the AHSN Network help?

England's 15 AHSNs are commissioned by NHS England and the Office for Life Sciences. They were established in 2013 and relicensed in 2018.

They understand the needs of our health systems and are well placed to broker innovative solutions, while collaborating across England to take what works best and quickly spread it nationally. They are catalysts for innovation, helping facilitate change across whole health and social care economies – to improve health, drive down the cost of care and stimulate economic growth. They connect regional networks of NHS and research organisations, local authorities, industry and citizens – responding to the diverse needs of our patients and populations through partnership and collaboration. They create the right environment for relevant industries and innovators to work more effectively with the health and social care ecosystem. They are collaborators – they identify successful innovations in our local and regional communities and support the spread of these across our national Network at pace and scale.

In this project Oxford AHSN has been able to:

- Help to navigate the various NHS frameworks to identify suitable digital partners.
- Provide capacity to research and understand the options and confidence in the evidence as a stock take in time.
- Support fact finding and evidence bases for digital solutions.
- Keep up to date with latest developments and emerging evidence in practice.
- Horizon scan.
- Facilitate pitch sessions for innovators to meet NHS partners.
- Help at least one service find the right solution for their needs.
- Be a critical friend.
- Provide unbiased approach to patient and clinical engagement.
- Provide experience of working with digital solutions suppliers and implementing digital pathways.

"The Oxford AHSN is an open hub of knowledge and expertise working towards better patient outcomes in all aspects of healthcare improvement and innovation"





# Our approach

# Phase One – identification of suitable digital solutions (desktop audit)

For the purposes of Phase One of this project we used the following criteria to identify products that focus on the digital offer in specialist mental health areas, across these domains. These tools should:

- a) Provide alternative assessment and therapeutic interventions to the local offer of staff in Trusts/ commissioned providers
- b) Provide psycho-educational tools that cements or speeds up recovery
- c) Provides peer / Expert by Experience moderated support to CYP and Parent / Carers.

Our initial trawl identified 33 potential digital solutions that met one or more of the above criteria. For the purposes of Phase One, we excluded websites that signpost to digital solutions or text-based services such as Shout and Chat Health. We also did not include video consultation platforms, as these simply change the location of the consultation for the patient, rather than a new or novel treatment or offer of support.

We also determined whether the solutions can be accessed directly by service users, in effect standalone solutions, or if they require a professional referral which in most cases require buy-in at a trust or service level.

Of the 33 initially identified, 15 were currently used or signposted to within the Buckinghamshire, Oxfordshire and Berkshire West (BOB), Integrated Care System (ICS) area.

As agreed, key information about these solutions was collected as part of a desktop audit and included; a description of the solutions, the type of conditions the solution is designed to support, evidence of its use, interoperability with existing systems, patient and clinical experience, cost, and strategic fit.





# Our approach

# Phase Two – Engagement with digital solution suppliers

Following presentation of Phase One to our partners at BOB ICS we agreed that the information gathered would be applied to the Thrive framework:

- Getting Advice
- Getting Help
- Getting More Help
- Getting Risk Support

This categorisation would help us to better understand the part of the patient's pathway the solution would best support. Greater detail was required at this stage to aid the understanding of how much clinical interaction (versus standalone) each innovation used as well as to complete the audit started in Phase One.

The AHSN project team met with each of the clinical system suppliers of the identified products to glean greater data and to seek information about proposed or anticipated developments to existing platforms, as well as any plans for new products in the pipeline.

During these conversations it became apparent that there is an appetite among digital developers to collaborate with trusts and to design and develop bespoke products, rather than simply pushing current off-the-shelf offers. This is both helpful and daunting to know, as it offers the potential for significant innovation but also adds an additional layer of complexity to a project that was intended – to some extent – to bring clarity and definition to this already crowded space.





# Our approach

# Phase Three – Engagement with patients and clinicians

In order to ensure that the digital solutions met both the needs of children and young people and the needs of the clinicians and services, it was important that representatives from these constituencies' views and experiences were sought and considered. Even the most well-evidenced digital treatment or innovation could not be adopted successfully if it did not have the support of users of service or of clinicians.

Clinical Engagement - we facilitated two online clinical engagement sessions attended by 18 staff working in CAMHS across BOB ICS. As well as asking the participants about the digital products they had used or recommended when treating young people, we also discussed where the greatest need in the CAMHS pathway was for digital solutions and what they considered the primary barriers to adoption to be.

Patient Engagement – we were invited to attend two Youth Board meetings across the same geography, as well as a Youth Summit event in North Oxfordshire. There was alignment with the opinions of the clinical teams; particularly around the broad range of digital solutions available and not knowing which ones are going to help them best. The young people that we spoke to were also very favourable for a one-stop-shop library to download tried and tested applications that were right for them in terms of both age appropriateness and symptoms.

The participants, as existing users of digital tools, expressed concern about the safety and necessity of the data they provided to the digital suppliers, finding that sometimes they were 'paying' for free of charge applications with their personal data. They also felt that some apps had been developed without engagement with the end users, as the language used was often experienced as patronising. This rated equally as a deterrent to use as issues and concerns expressed around data security.

We discussed the possibility of 'paid-for' apps being available via prescription. Whilst this approach would allow young people to access valuable content, which is commonly behind a pay wall, there was a distinct reservation around having to speak to a professional first before they could access such resources. This again supports the one-stop-shop library of apps model, some of which could be commissioned by trusts, with licences made available to young people in need of support.



# Scoping digital support for children and young people's mental health Clinical engagement sessions



# Where is the greatest need in the CAMHS pathway for digital solutions?

Be good to see how digital solutions can reduce time and burden for CAMHS staff-so tools that are more efficient and allow greater capacity, screening, allocation, swift record keeping etc...

Wherever the young person/family are happy to engage with it, and it manages the need.

There are opportunities throughout the pathway prevention and early help, screening, triage and assessment, interventions at getting help and getting more help, risk support etc... All the way through at point of referral, whilst waiting and then afterwards

Right from the beginning with schools, GPs also through to crisis services

Patients awaiting an assessment for ASD/ADHD, or post diagnostic when waiting for an intervention or instead of an intervention

Initial referral and waiting lists. Crisis support if struggling to engage

Supporting young people whilst waiting in the interim for support particularly of note those young people awaiting a possible diagnosis of Autism

As part of various offers of support for those waiting for longer term interventions

Source: anonymous feedback from commissioners and CAMHS clinicians in Berkshire, Buckinghamshire and Oxfordshire at webinars, June 2022.



# Scoping digital support for children and young people's mental health Clinical engagement sessions



What are the barriers to adopting digital solutions?

Not knowing what's available.
Understanding what the apps are about

Time to research and understand the options & confidence in the evidence/quality etc... underpinning. Complex procurement processes needed for some - lack of capacity/organisational support to priorities.

Dismissive attitude, not seeing it as 'helpful enough'

Keeking up to date with which ones to use with which patients

Knowing which to use/recommend.
Concern re governance/ do they need
to be NHS apps only as very few are
funded where this is needed - need to
evidence cost effectiveness

Suitability and what actually appeals to the young people

Training

Procurement

Evidence Too Many

Engagement Governance

Awareness

Knowledge

How do we know it is being used and used properly

Confidence in quality of digital products

Making sure the information is correct. There is a link to escalate when there is harm. Safeguarding referral when needed

Source: anonymous feedback from commissioners and CAMHS clinicians in Berkshire, Buckinghamshire and Oxfordshire at webinars, June 2022.





# Further reading

Understanding healthcare workers confidence in AI (Health Education England and the NHS AI Lab) May 2022 Understanding healthcare workers confidence in AI Digital Transformation (hee.nhs.uk)

DCB0160: Clinical Risk Management: its Application in the Deployment and Use of Health IT Systems (NHS Digital)
June 2018

DCB0160: Clinical Risk Management: its Application in the Deployment and Use of Health IT Systems - NHS Digital

NHS Evidence Framework Standards (ESF) for Digital Health technologies (NICE) April 2021)

Overview | Evidence standards framework for digital health technologies | Guidance | NICE

Digital Technology Assessment Criteria (NHSX) April 2021

Digital Technology Assessment Criteria (DTAC) - Key tools and information - NHS Transformation Directorate (england.nhs.uk)

Draft IAPT assessment criteria for digitally enabled therapies (NHS Digital) August 2021

Draft IAPT assessment criteria for digitally enabled therapies - Digital Technology Assessment Criteria (DTAC) - NHS Transformation Directorate (england.nhs.uk)

Digital Clinical Safety Strategy (NHSX) September 2021

Digital Clinical Safety Strategy - Key tools and information - NHS Transformation Directorate (england.nhs.uk)