Encouraging results from an initial evaluation of **CBT Bytesize** - a novel multimodal digital intervention for anxiety

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What do young people want from therapy?

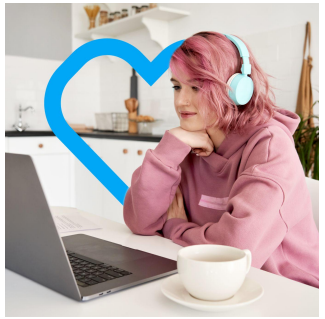
Feedback from children and young people who received CBT with Healios

"Have a way of communicating with your therapist easily between sessions like texting."

"Would have benefited from more sessions, once a week seemed a long time in-between."

"[Would prefer] 2 sessions a week. Things are forgotten by the next week. More than 10 sessions would help a lot."

"I think having some form of direct communication with the clinician we are seeing would be helpful, such as if anything were to happen in the time between sessions I could have contacted her directly."



Problems to solve

Problems for Children and Families

Not all young people like video based sessions and this can be a barrier to accessing therapy.
Standard 50 minute video sessions are also a long time for a young-mind to stay engaged.
Children and families want more regular contact with their clinician than once per week.

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Problems for Clinical Services

CBT therapists are a scarce resource and a shortage of therapists results in a bottleneck and increased waiting times.
CBT Therapists are costly and a fair proportion of their time is spent delivering therapeutic content which could also be delivered by wellbeing coaches.

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The Solution

Breaking therapy down into smaller, frequent touchpoints via texting and video, augmented by our ThinkNinja app, supported by wellbeing coaches who work under the direction of CBT Therapists.

CBT Bytesize

An innovative multimodal approach designed to meet the needs of Children, Young People and Families.

Young people receive small chunks of therapy throughout the week via text messaging and short video calls, augmented by specifically designed CBT-based content on our ThinkNinja app. The intervention is delivered by CBT therapists and supported by a team of coaches.

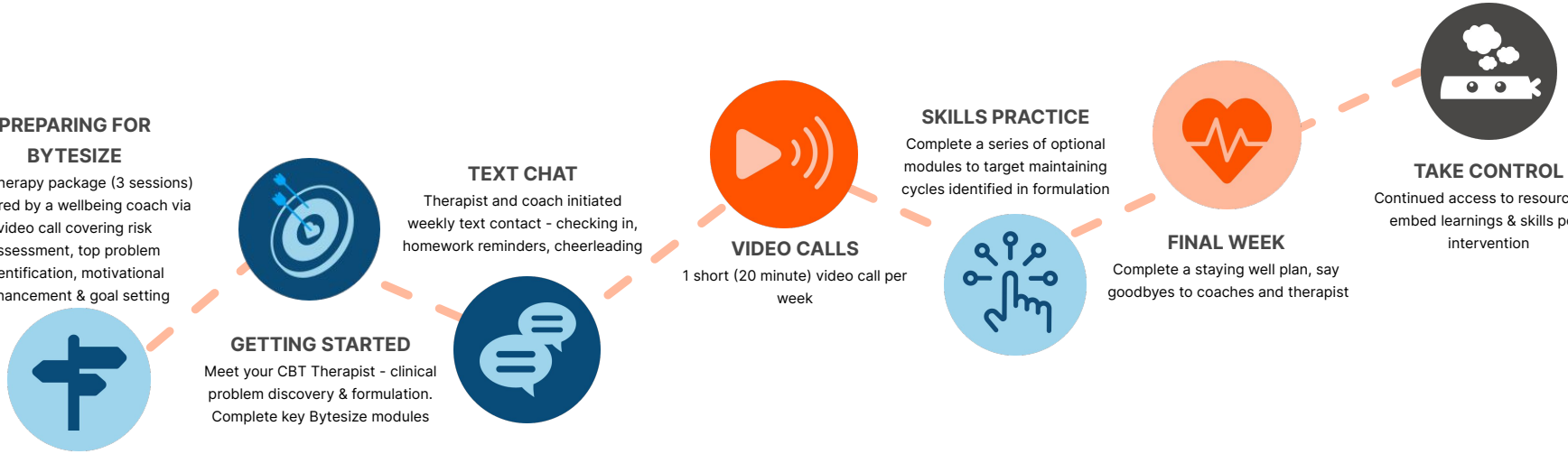
Text chat

Video calls

ThinkNinja app

The CBT Bytesize Pathway

A typical Bytesize journey



PREPARING FOR BYTESIZE

A pretherapy package (3 sessions) delivered by a wellbeing coach via video call covering risk assessment, top problem identification, motivational enhancement & goal setting

GETTING STARTED

Meet your CBT Therapist - clinical problem discovery & formulation. Complete key Bytesize modules

TEXT CHAT

Therapist and coach initiated weekly text contact - checking in, homework reminders, cheerleading

VIDEO CALLS

1 short (20 minute) video call per week

SKILLS PRACTICE

Complete a series of optional modules to target maintaining cycles identified in formulation

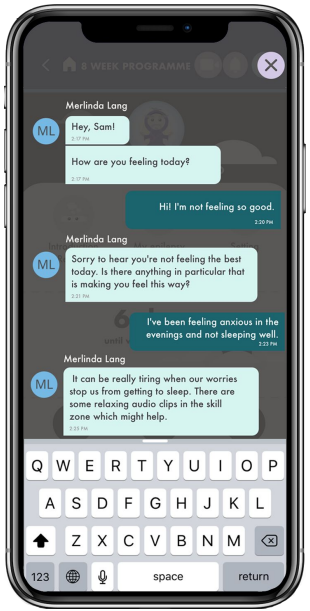
FINAL WEEK

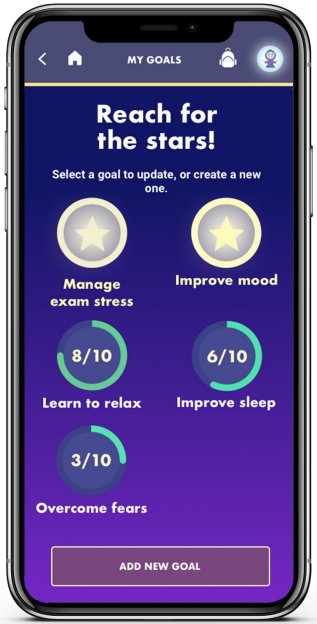
Complete a staying well plan, say goodbyes to coaches and therapist

TAKE CONTROL

Continued access to resources to embed learnings & skills post intervention

The CBT Bytesize experience for young people





Young people can live chat with their therapist or coach between 8am and 9pm Monday to Friday, and on Saturdays between 10am and 3pm.

Built on CBT principles and designed with young people, ensuring content is engaging, and interactive.

Pilot Sample

Sample (N=28)

RECRUITMENT

41 Children and young people were offered the choice between CBT Bytesize and digital CBT at Healios.
68% opted for CBT Bytesize, 32% declined or did not respond.

DEMOGRAPHICS

Mean age at the start of treatment
M=14.4 (range: 11 - 17)

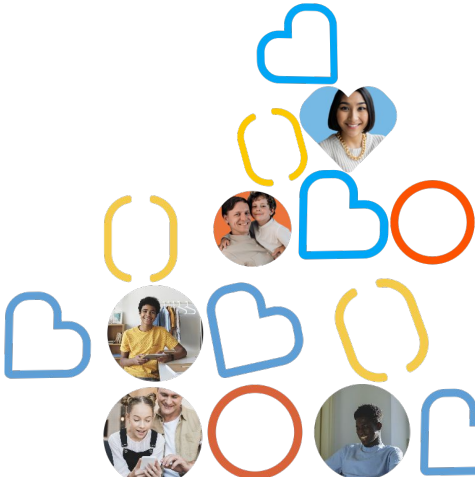
N=21 (75%) female

TOP PRESENTING PROBLEMS

Social anxiety and/or Generalised anxiety
Comorbid low mood
Panic
Selective mutism
Emetophobia
OCD

TOTAL SAMPLE

- **N=15 CYP from tier 3** (mean age 14.3, range: 11-17; 67% female)
  (information on baseline scores provided later)
- **N=13 CYP from tier 2** (mean age 14.5, range 12-17; 85% female)
  (information on baseline scores provided later)



Sample

The total sample consisted of 28 children and young people, with N=26 paired scores

- **N=19 CYP completed a full course of CBT Bytesize (CBT-B)** (N=10 from a tier two service and N=9 from a tier three service) ***mean number of weeks on intervention: 13.5***

- **N=7 CYP completed at least 4 weeks of CBT-B but left early** (N=3 from tier two and N=4 from tier three)

- **N=2 CYP from tier three completed < 4 weeks and were discharged** (N=1 had 4 sessions over a period of 1.6 weeks, and N=1 only had their baseline measures session) both cases were returned to CAMHS due to risk

Reasons for non-completion (N=9)

- Did not attend (DNA) or disengaged N=3
- Referred back to CAMHS due to risk or complexity N=3
- Moved to another intervention within Healios N=2
- Requested to finish early due to reportedly feeling better N=1

Pilot Outcomes

Routine Outcome Measures

Using outcomes to inform treatment

Young person's Clinical Outcomes in Routine Evaluation (YP-CORE) *Twigg et al., 2009*

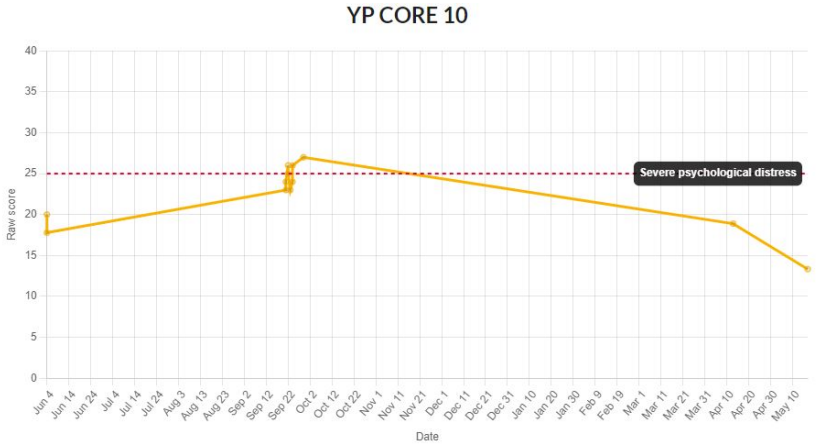
10-item session by session monitoring tool scored on a 5 point likert scale. Monitors frequency of anxiety, depression, trauma, physical problems, functioning and risk to self 'over the last week.

Revised Children's Anxiety and Depression Scale (RCADS-47) *Chorpita et al., 2000; Spence, 1997*

47-item youth self-report questionnaire. Subscales include separation anxiety disorder, social phobia, generalized anxiety disorder, panic disorder, obsessive compulsive disorder, and low mood (major depressive disorder).

Goal Based Outcomes (GBO) *Law, 2019; Law and Jacob, 2015*

Assess progress on up to three idiosyncratic therapy goals rated from 0 (no progress) to 10 (goal achieved), with goal progress being tracked between first rating and final rating.



Images to illustrate how ROMs are displayed in the online clinical portal. Data taken from a clinician's training client account.

Outcome Parameters

CLINICAL IMPROVEMENT

('recovery')

Refers to when the young person moves from above the clinical threshold to the non-clinical range on *at least* 1 measure (YP-CORE or RCADS-47), ***and*** *both* measures also finish in the non-clinical range. Each measure has its own clinical threshold.

RELIABLE IMPROVEMENT

Refers to when the young person makes a specific amount of movement in scores on a scale. Reliable improvement tells us whether this change reflects more than the fluctuations on the measurement (Jacobson & Truax, 1991).

To be considered reliably improved, the YP needs to improve in *at least* one measure (YP-CORE, RCADS or GBO) with **no** reliable deterioration on *any* measure.

If the YP reliably deteriorated on **any** measure, they would be classed as reliably deteriorated.

Each measure has its own reliable change index (RCI).

CLINICAL AND RELIABLE IMPROVEMENT

('reliable recovery')

When a change in scores on at least 1 measure indicates **both** reliable **and** clinical improvement, with no reliable or clinical deterioration on any other measure.

Clinical and Reliable Change

Total Sample Outcomes

N=26 paired scores

On at least 1 ROM...

35%

N=9

CLINICALLY IMPROVED

- No clinical change: N=15 (58%)
- Clinically deteriorated on at least 1 ROM: N=2 (8%)

65%

N=17

RELIABLY IMPROVED

- No reliable change: N=6 (23%)
- Reliably deteriorated on at least 1 ROM: N=3 (12%)

31%

N=8

CLINICALLY & RELIABLY IMPROVED

- Clinically & reliably deteriorated: N=1 (4%)

Subanalysis of those who completed CBT Bytesize (N=19)

Completed CBT Bytesize N=19

Reliably Improved: N=17

89%

Completed CBT Bytesize & clinical on at least 1 ROM at baseline (N=15)

Clinically Improved: N=9

60%

Clinically & reliably Improved: N=8

53%

Completed CBT with Healios in 2020 N=717

Reliably Improved: N=512

71%

Completed Healios CBT & clinical on at least 1 ROM at baseline (N=538)

Clinically Improved: N=166

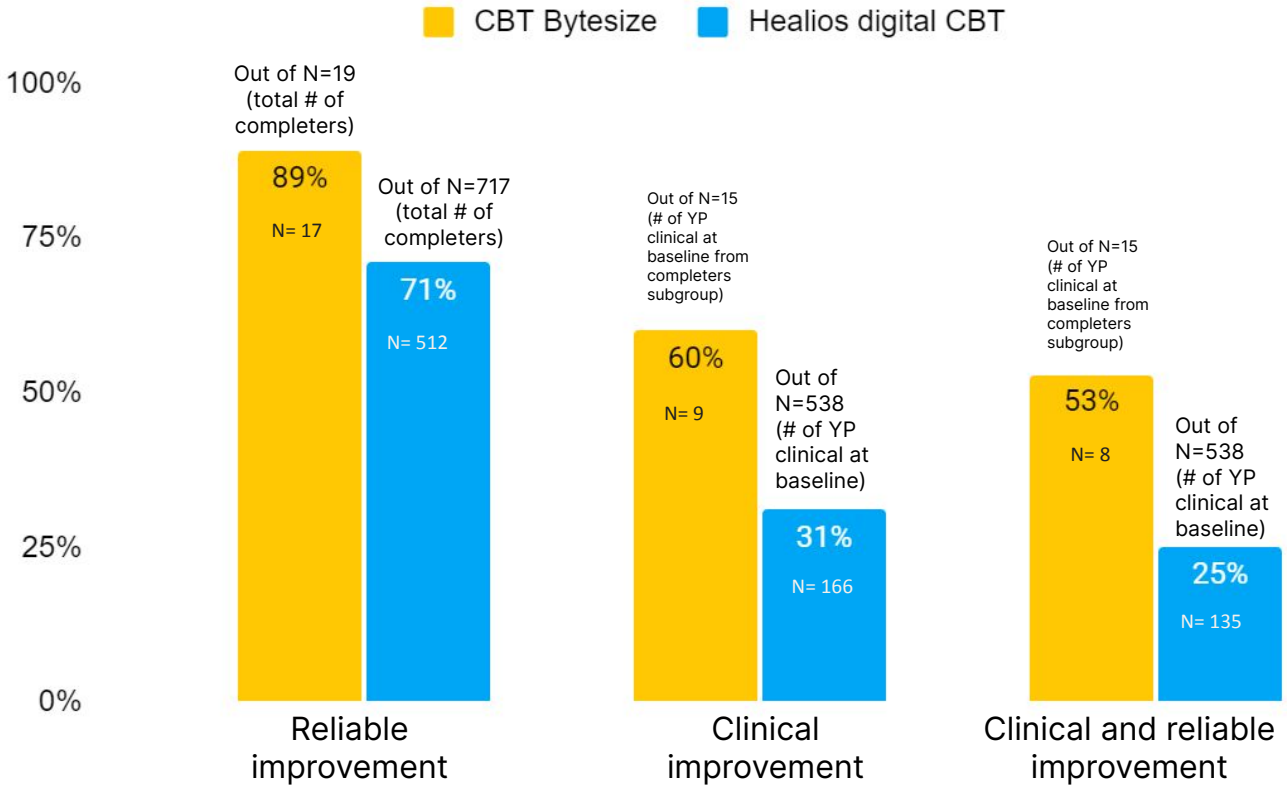
31%

Clinically & reliably Improved: N=135

25%

Porter et al., 2022

Outcomes for those who completed CBT Bytesize and those who completed Healios digital CBT



Comparison between YP from tier 2 and tier 3 services

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Tier 2

83% of YP (N=10) were above the clinical threshold on the YP-Core at baseline

Mean score of 19.5 on the YP-Core at baseline

Mean score of 60.2 on the RCADS-47 at baseline

Mean number of weeks in treatment (for those who *completed* therapy)- 13.9

3

Tier 3

79% of YP (N=11) were above the clinical threshold on the YP-Core at baseline

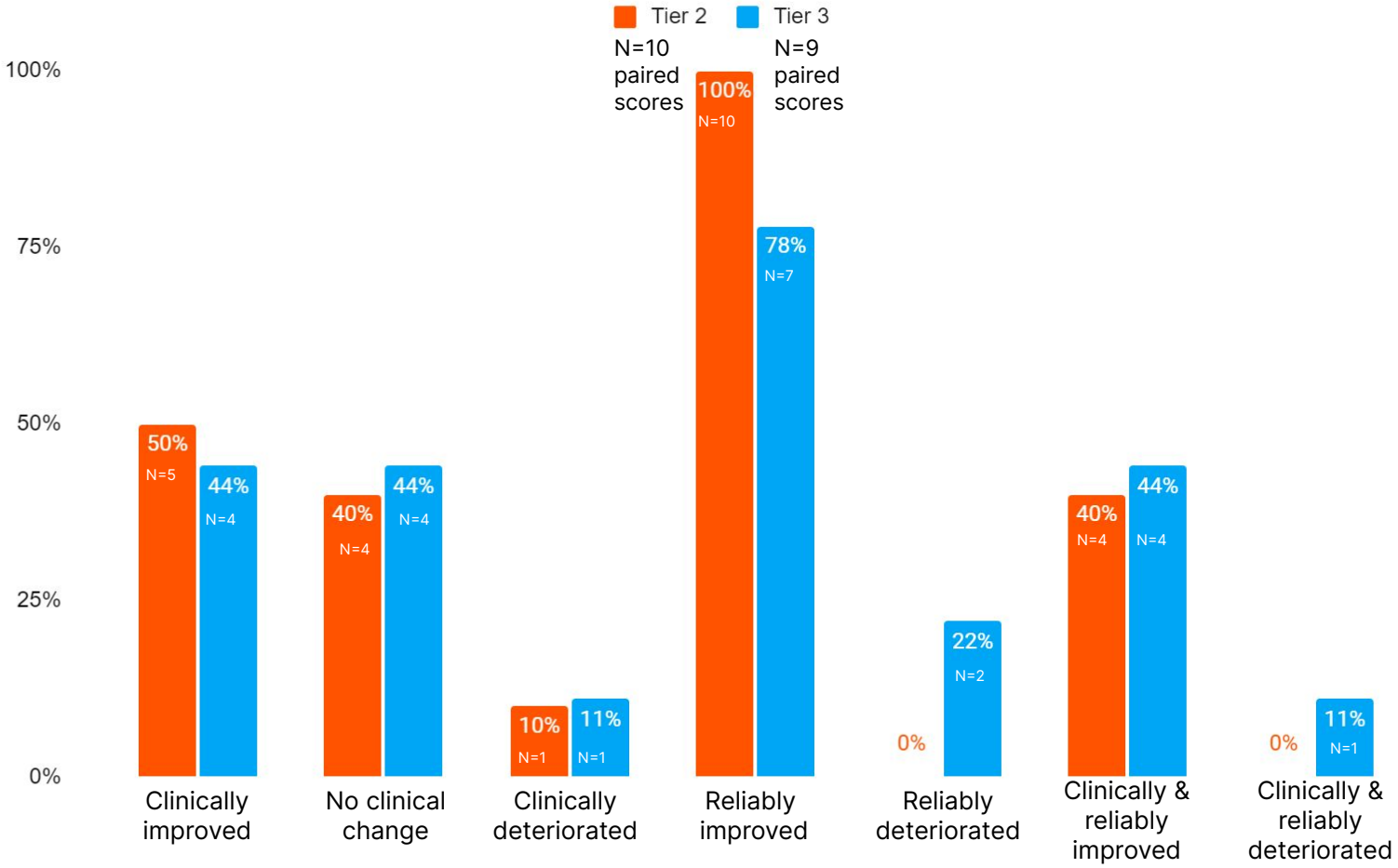
Mean score of 20.3 on the YP-Core at baseline

Mean score of 63.4 on the RCADS-47 at baseline

Mean number of weeks in treatment (for those who *completed* therapy)- 12.9

The two groups at baseline, whilst not compared statistically, do not appear to be vastly different at baseline when using the YP-Core scores. This indicates that through the application of our broad inclusion criteria, regardless of the tier of service, YPs presentations did not differ in severity.

Outcomes comparison between tier 2 and tier 3 completers (N=19)



Feedback from Young People and Families

"I liked the messaging and that even when I didn't have an appointment, someone would reach out to me."

"You get to choose what works for you."

"I liked knowing that if I had a problem there was someone on the other end."

"He is more confident since doing Bytesize. He seems like his old self again, not the insecure person he became who couldn't face going to school. The change in him has been amazing and I just can't thank you all enough."

"I like the text messaging and being able to message when it suits me. Also having access to the app when I need to."

Healios

Next Steps

Looking to the future

CBT BYTESIZE SERVICE EVALUATION

- Manchester Metropolitan University (MMU) will be conducting an external evaluation of CBT Bytesize.
- Young people will be invited to provide feedback, clinicians will be invited to participate in focus groups, and young people's outcome data will be analysed.
- Healios will be completing a matched sample comparison between CBT Bytesize and Healios CBT.

A NEW PHASE OF TESTING

- In the process of recruiting at least 30 more children and young people.
- Introduction of a pre-therapy package at the start of CBT Bytesize; child/teen works with a wellbeing coach & explores readiness for therapy.

SCALING UP

- We aim to identify those who will benefit most from CBT Bytesize and recommend this option to them.
- Further development of our ThinkNinja app and the clinical platform.

Healios

Thank you for listening.

A special thanks to Dr Frank Burbach and Dr Melissa Snaith who helped develop this programme, and to our CBT clinicians and coaches for their dedication to the project.

Any questions?



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