Smartphone app can help children dial down anxiety

HEALTH

Meditation and yoga don’t always work for children - but a game might. By Rhiannon Williams

Rachel’s daughter was 10 when she started struggling with anxiety. She was placed on a waiting list to receive support from Child and Adolescent Mental Health Services (Camhs), an 11-month wait during which she began experiencing additional OCD symptoms. “It escalated to the point where it completely consumed our daily lives,” Rachel recalls. “We all know how stretched and under-resourced services are, but if your child isn’t perceived to be at crisis point, you just have to wait.”

Rachel’s daughter’s experience is far from uncommon. World Health Organisation guidelines state that half of all mental health conditions develop by the age of 14, with the potential to severely affect children’s development, educational achievements and ability to live fulfilling lives if left untreated. The number of children across the UK reporting mental disorders is also on the rise: a Department of Health and Social Care survey found one in nine children aged between five and 15 years old had at least one mental disorder in 2017, a rise from one in 10 in 2004. The rise was largely attributed to an increase in emotional disorders, including anxiety and depression, rates of which rose from 3.9 per cent in 2004 to 5.8 per cent in 2017.

Unsurprisingly, the NHS is struggling to provide support in a timely manner. One in five children with a disorder waited six months or more for contact with a mental health specialist, the same survey found, while a 2008 Children’s Society report alleged 78 per cent of children and adolescents experiencing mental health problems had not had appropriate interventions at an early age.

Traditional calming and coping mechanisms for adults such as meditation and yoga don’t necessarily work for young people. Although technology is often put forward as a driver of adolescent anxiety, it can also help to bridge the gaps in mental healthcare provision. BB Labs is an organisation dedicated to creating what it calls digital interventions for better mental health among young people, providing them with access to support they may otherwise not have through a free game for smartphones and tablets aimed at reducing anxiety in seven- to 12-year-olds.

Star Atlas has been in development since late 2017 and focuses on exposure therapy: a key component of cognitive behavioural therapy (CBT),
which has been shown to be an effective way of treating anxiety, depression and other mental health conditions.

The team has created 16 versions of the game centred around the most common anxieties across the age group, including speaking in front of a group, fear of dogs or spiders, and sleeping on their own. Playing as a Star Cadet, the player is invited to explore new worlds and solve mysteries, progressing up the treatment ladder to gain rewards. Exposing the child gradually to their fear over a series of levels over a period of weeks can get them used to that feeling and to help them better control and minimise their anxiety.

“We’ve woven an exposure ladder into the narrative, challenging children to complete missions in space to discover new planets,” explained Duncan Brown, co-founder of BIB Labs. “A child will be challenged with their exposures, which are specific to them, periodically throughout the game. Human-led support in terms of therapy is very hard to get access to, and the severity of your condition needs to be significant for you to actually receive it,” he said. “Lots of NHS units won’t look at children under the age of 10 because they say it’s too early, but we know they need support. By using a digital product, we can provide something which is easy to access and distribute.”

NHS England has invested £964,308 in the game through a programme to address unmet needs in the NHS. A panel of clinicians and technical experts felt it offered an “innovative way forward”, said Chris Warwick, medtech consultant at Health Enterprise East, in charge of administering the grant on behalf of NHS England.

Digital ideas are becoming more commonly suggested solutions for NHS issues, he told. “This is partly to promote engagement and partly to take pressure off child and adolescent mental health services. If there are alternatives to face-to-face therapy, or an innovation that can be used while they’re on a waiting list or an adjunct to regular therapy, then so much the better.”

The team, in collaboration with the University of Reading and NHS co-operative MindTech, is midway through a final version ahead of clinical testing in January. Once completed next year, BIB Labs plans to license the game to NHS commissioning groups and to help special educational needs assistants in schools, downloadable from the Google Play or App Store.

“The intention at the moment is to sell a number of time-bound licences,” Manjul Rathee, also co-lead at BIB Labs, said. “If you want to buy the product and give it to 100 young people in Manchester who may have anxiety, you can issue it either through schools or to those on the waiting list for children’s mental health services.”

Partnering with schools will help children access the app who may not have devices at home. Evidence suggests completing exposure ladders helps to teach children coping skills, which can be transferred to other anxiety-combating mechanisms.

“The therapeutic basis of what we’re building has to be validated,” says Brown. “We see a lot of digital products that don’t have that, and so few products are genuinely aimed at and made right for young audiences.

“We’re not trying to replace therapists. We are delivering an element of therapy we’re confident will have a positive impact when used. We describe it as giving clinicians super powers because they can use early in the care pathway, or they can use it alongside the support they’re already giving because exposure therapy’s really hard to do in a therapist’s office.”

While Rachel’s daughter was able to see an occupational therapist as an interim measure while waiting for CBT, they eventually decided to go privately. “When your child starts to refuse school and talk about suicide, you’re not going to sit and wait,” Rachel says. “In the end, we had to pay an eye-watering amount of money for her to receive the help she desperately needed, and she’s much better now because of it.

“If she’d had something like this game, she could have felt like: ‘Yes, you’re on a waiting list, but we are supporting you, here’s something you can do at home. We weren’t given any signposts towards self-help, but I think something like this would have made the world of difference to how my daughter felt.”

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