

Using technology to support children with eating disorders

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Kernow Health CIC provides physical monitoring for children with a range of eating disorders. The normal care pathway includes attending clinics, however during the pandemic, an alternative approach was needed. Michele Boyce, Service Lead Nurse, explains how they worked with Cornwall Partnership NHS Foundation Trust and Tunstall Healthcare to introduce remote health monitoring, to enable clinicians to support patients at home.

The children's eating disorder service offers treatment and support to children between eight and 18 years of age with a range of eating disorders including Anorexia Nervosa, Bulimia Nervosa and other specified feeding or eating disorders. At Kernow, we provide the physical monitoring, and work with Cornwall Partnership NHS Foundation Trust which delivers mental health assessment and treatment, and the Royal Cornwall Hospitals Trust which provides Paediatrician cover, to offer holistic support.

Prior to the COVID-19 outbreak, it was standard practice for the children to attend face to face clinics for physical monitoring and therapy. As the pandemic hit, it became unsafe to see patients in person; clinics were closed and it wasn't possible to undertake home visits due to the risk of cross infection. This left a vulnerable cohort of patients without treatment, unless they became seriously unwell and required hospital admission.

Cornwall Partnership NHS Foundation Trust was already using remote patient monitoring (RPM) as part of its Digital Health Service for other cohorts e.g. to support Respiratory and Cardiac Conditions. We worked in partnership with Tunstall to explore how we could adapt the service to support children with eating disorders at home. A special health interview was developed based on the Junior MaRSIPAN (Management of Really Sick Patients with Anorexia Nervosa) risk assessment framework, and patients and parents use the myMobile app on their phones to record reading from devices in their homes. Depending on assessment monitoring and the physical needs of a child, this can include blood pressure, pulse rate, temperature and weight. They then answer symptom related questions such as whether they are experiencing light headedness or fainting.

All the information collected is automatically uploaded to ICP triagemanager, where any breaches of parameters set for individual patients will raise an alert on the system. Clinicians can log in to a secure portal to view a colour coded dashboard which prioritises patients according to the need for intervention. Individual patient's readings can also be viewed over time to monitor their progress, with the initial monitoring period expected to be 26 weeks, however this can be extended according to the needs of each child.

The service is still in its relatively early stages, but 54 out of 125 existing caseload patients deemed to be at high risk have been referred, and feedback from clinicians involved is very positive. This number is expected to continue increasing, with the caseload more than doubling since the beginning of the pandemic and continuing to rise. Outcomes are still being measured but are expected to include improved self-management and concordance with medication, and increased wellbeing of patients and families as the stress of travel has been reduced. We also expect to see a reduction in hospital admissions.

RPM has ensured ongoing service provision throughout the pandemic, and continues to be proving valuable as restrictions ease. Two of the clinics have been adapted to care for COVID-19 patients, meaning staff have had to work from home, but the technology means they can still manage their caseloads.

The children we support are extremely vulnerable, and any delay or interruption to the treatment they receive could have serious implications for their recovery. Being able to deploy a solution so rapidly to enable us to continue helping them has been a real relief; it's been amazing just how quickly we've been able to adapt, and I would encourage other services to explore whether RPM could benefit them and their patients.