Improving capacity and flow in a children and young people's Community Eating Disorder Service (CEDS): how a quality improvement initiative led to a reduction in waiting times in the service

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ABSTRACT

Eating disorders are serious mental health conditions associated with significant morbidity and mortality. High levels of demand on services have led to increases in wait times to access support. Early intervention of eating disorders is critical to prevent entrenchment of illness and improve prognosis, with long wait times associated with higher rates of relapse.

The East London Community Eating Disorder Service has seen an increase in wait time for routine referral from the 2-week local target to 17 weeks. Additionally, there have been long wait times to access treatment, including therapy and psychiatry support.

A quality improvement (QI) framework was used in June 2022 to tackle the issues with capacity and flow with an aim to reduce wait times for routine referral from 17 weeks to 2 weeks in 12 months.

A QI project team was formed which sought to understand the demands and capacity of the system using process mapping.

From this, the team created a driver diagram and used Plan, Do, Study, Act cycles to test change iteratively. Measurements and data were displayed on control and run charts to help learn from the change ideas tested. Improvements were made and sustained, including reduction of routine referral wait time from 17 weeks to 2 weeks in 12 months. Additionally, internal wait lists reduced from 73 patients on the psychiatry list to 0 in 3 months and from 50 families waiting for therapy to 0 in 7 months.

A number of inactive cases reduced from 65 to 0 during testing, thus contributing to improved flow through the service. A striking £130 233.21 annual savings in agency staff expenditure was achieved by January 2023.

This has enabled a positive culture shift in the service.

PROBLEM

Following the onset of the pandemic, the number of young people with eating disorders needing support has increased significantly.[1] The National standards for eating disorder wait times are 1 week for urgent assessment

WHAT IS ALREADY KNOWN ON THIS TOPIC?

⇒ Eating disorder waiting times have increased nationally for children and young people. There appear to be few dedicated studies of improving waiting times for eating disorders in children and young people presented in the literature. Other studies of improving waiting times in Child and Adolescent Mental Health Services (CAMHS) services more generally have identified the use of quality improvement (QI) methods to tackle this.

WHAT THIS STUDY ADDS

⇒ This study demonstrates that the use of QI methods can successfully reduce children and young people eating disorder wait times. Strategies including introducing structures and processes for reviewing waiting list, improving referral processes and close monitoring of case lists have led to improved flow through the service and sustained reduction in wait times.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Waiting times are a significant challenge in the National Health Service impacting patient outcomes. This study shows that QI methodology can be an effective way to tackle these challenges in a cost-effective, systematic and sustainable way.

and 4 weeks for routine assessment. Higher levels of demand are impacting waiting times nationally. In Q4 2021/2022, 61.9% of urgent eating disorder cases for children and young people were seen within 1 week and 64.1% of routine cases within 4 weeks, with a significant proportion waiting more than 12 weeks for support.[1]

The East London Community Eating Disorders Service (CEDS) offers specialist community services including assessment and treatment of young people under 18 with an

eating disorder across the boroughs of Tower Hamlets, Newham and City & Hackney.

The service is commissioned to offer urgent assessment within 5 days and routine assessment within 2 weeks, with all young people offered multidisciplinary care that includes therapy, dietetics, nursing, paediatric input and psychiatry tailored to need. Referrals can be made via general practitioners (GPs), schools, local Child and Adolescent Mental Health Services (CAMHS), medical professionals, voluntary services and self-referrals.

The service has been impacted by the COVID-19 pandemic with an increase in referrals, issues with staff recruitment and retention and poor staff morale, leading to significant increases in wait times. During this period, the team vacancy rate was 38%. The routine referral wait time target had increased from 2 weeks to an average of 17 weeks in 2022. Similarly, the wait time to access therapy and psychiatry input increased, resulting in families waiting months for support.

Given this challenge, the aim of the project was to reduce the average wait time for routine referral from 17 weeks to 2 weeks within 12 months.

BACKGROUND

Eating disorders are common and serious mental disorders affecting up to 15% of women[2] and 5.5% of men,[3] with peak onset from mid-adolescence to early adulthood (15–25 years of age).[4] Eating disorders are often associated with high levels of functional impairment, psychological comorbidity and suicidality.[5] The mortality rate for those with Anorexia Nervosa is significant—5.86 times higher than in the general population.[6]

Since the COVID-19 pandemic, there have been growing concerns about the increase in the number of young people with eating disorders. In 2023, 12.5% of 17–19 years in England were estimated to be living with an eating disorder, compared with 0.8% in 2017; in 11–16 years, this was 2.6% in 2023 compared with 1% in 2017.[7]

Studies show treatment of eating disorders is more clinically and cost-effective in outpatient or community settings than in inpatient, with inpatient treatment resulting in higher relapse rates.[8] Treatment of eating disorders in an outpatient setting typically includes a multidisciplinary approach with a range of interventions including psychiatry, pharmacological intervention, psychological therapies (Cognitive Behavioural Therapy and Dialectical Behaviour Therapy) and family therapy.[9][10] In cases which are difficult to manage, inpatient stays may be appropriate.

Key, though, in all is early intervention of eating disorders, which includes the early detection and rapid access to treatment which may prevent the illness becoming established and improve prognosis.[11] Long waits have been seen to be both a barrier to seeking treatment,[12] and residual symptoms can impact effective engagement with treatment and relapse rates.[13]

There appear to be few dedicated studies of improving waiting times for eating disorders in children and young people presented in the literature. Other studies of improving waiting times in CAMHS services more generally have identified several strategies including close monitoring, structures and processes for reviewing waiting lists and improving referral processes.[14][15] What is critical is the need to consider the totality of the pathway, as focusing only on front door access can just push the issue downstream.[16] Quality improvement (QI) methods have been used to tackle this in a range of settings.[15][17]

MEASUREMENT

A family of measures was developed including outcome, process and balancing measures.[18] Data were displayed over time on Statistical Process Control (SPC) Charts to help understand variation in the data and if change had resulted in an improvement.[19]

The main outcome measure was average wait time from routine referral to initial assessment. That is the average time in weeks from receiving routine referral to initial face-to-face assessment of the patient in the clinic. These data were collected and recorded on an Excel spreadsheet for each case, detailing the referral date and date of initial assessment. The average was plotted over time on an x-bar and S chart fortnightly.

Process measures included a number of patients on internal waiting lists. For the psychiatry wait list, the number of patients waiting was recorded regularly from September 2022 to December 2022. For the therapy wait list, the number of families waiting was recorded in September 2022 and reviewed over the following 7 months while the change ideas were tested. Both measures were plotted on run charts due to the number of data points collected.

Two balancing measures were used and included the number of inactive cases on the caseload and agency spend on staff. Inactive cases are defined as those who have not had any clinical contact for 6 months.

The measurement plan was recorded in a table (table 1).

DESIGN

The project team comprised a range of clinicians across the multidisciplinary team (MDT) that included nurses, support workers, administrators, dieticians, doctors and therapists and included those across a range of banding and experience. There were in total 10 people in the project team. The meetings occurred weekly for an hour, in the main clinic. Some of the project team could join virtually as the project group worked over three different sites.

The team used the Institute for Healthcare Improvement (IHI) model for Improvement as its Quality Improvement Method to tackle the issue at hand.[20] This was complemented by a standard sequence of improvement to support teams to sequentially identify the issue,

Table 1 Measurement plan for the project

Measure	Definition	Data collection
Average waiting time from referral to assessment	The average time in weeks from the point of referral to assessment for routine referrals	Collected from June 2022 Charted on SPC fortnightly
Number of patients on the psychiatry waiting list	Count of the number of patients on the psychiatry waiting list	Collected from September 2022 Charted monthly on a run chart
Number of patients on the therapy waiting list	Count of the number of patients on the therapy waiting list	Collected from September 2022 Charted monthly on a run chart
Number of inactive cases on caseload	Count of the number of inactive patients on the service caseload. Inactive is defined as no clinical contact for 6 months	Collected from September 2022 Charted monthly on a run chart
Spend on agency staff	Count of total spend on agency staff in pounds	Collected from January 2022 Total annual spend calculated

SPC, Statistical Process Control.

understand the problem, develop a theory, test ideas and implement successful ideas into business as usual.

To help understand the issue more widely, the team used process mapping (online supplemental file 1, online supplemental file 2, online supplemental file 3). Process mapping is widely used in improvement and can help teams understand the process together, identify bottlenecks and where there are opportunities for improvement.[21]

From this, the team developed a driver diagram (figure 1), which worked as their theory of change for the project identifying key change ideas that would make a difference.[22]
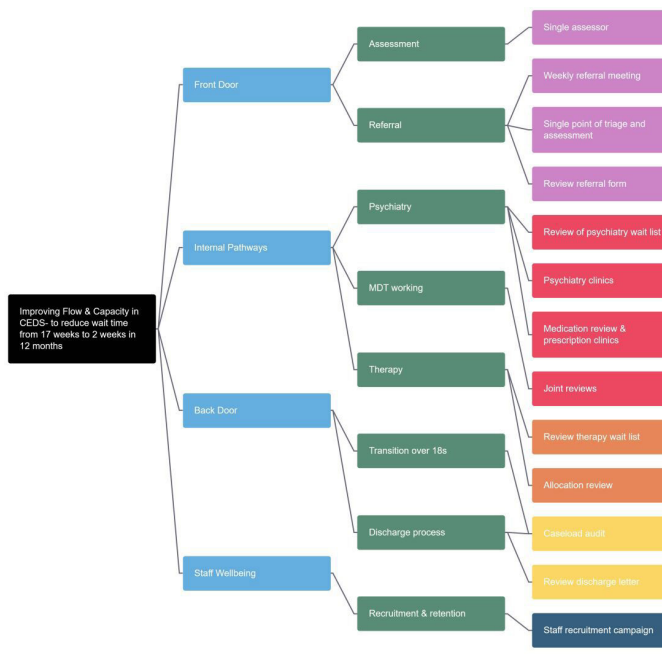
Figure 1 Driver diagram.

STRATEGY

Change ideas were tested using Plan Do Study Act (PDSA) cycles to help test and learn what works on a small scale.[23] Change ideas were developed for each of the priorities across three areas of the pathway—front door, internal pathways and back door.

FRONT DOOR PROCESS (REFERRALS PROCESS)
Change idea: weekly referral meeting
PDSA 1 (August 2022): All open referrals were recorded on a waiting list document called the referral tracker. This comprised all referrals received to be screened and processed. Since there was a backlog of referrals, this meant the referral tracker list was significantly long, around 50 referrals at the start of testing. Often referrals would go on the list while awaiting further information, without a deadline, resulting in referrals staying on the list for months.

The team agreed to introduce a weekly referral meeting attended by the team leads to work together to process the number of patients on the referral tracker list. A 2-week deadline was given to referrers to complete all relevant sections of the referral form or to provide the further information needed. The referral would be closed if the information was not completed in this time frame.

Change Idea: single point of triage and assessment
PDSA 1 (October 2022): The team explored the purpose of the existing triage system which required two clinicians to review referrals together. This used double the capacity and would often mean clinicians spent significant time chasing missing information. The team tested removing this step and asking the senior duty clinician to review this on their own, bringing issues to the MDT or weekly referrals meeting as required. We found this made screening more efficient, and referrals that met the criteria for an assessment would be added to the weekly assessment calendar and would be allocated a senior clinician for an assessment within the next 2 weeks.

PDSA 2 (November 2022): From the process mapping exercise, it was identified that using two clinicians to undertake assessment led to delays in timely appointments being arranged. Using learning from PDSA one, using a single clinician to undertake an assessment was tested instead of two. This enabled the second assessor to be released to offer therapy to routine cases. This initiative seemed to have contributed to improving capacity and flow.

Change idea: reviewing the referral form

PDSA 1 (January 2023): The referral form was reviewed and compared with other London-based eating disorder services. Learning indicated that the existing referral form did not capture all the information needed, resulting in time being spent by the team chasing referrers for information. The main theory of revising the form was that it would make it easier to complete.

The form was revised to include key information relating to service inclusion and exclusion criteria and making it clear referrals would not be accepted if the eating disorder section were not completed.

PDSA 2 (March 2023): The revised referral form was shared with CAMHS colleagues and local GPs for their input. Edits were suggested to the length of the form, leading to further streamlining helping to capture the relevant information needed on receiving the referral. This way the form was codesigned and tested with CAMHS colleagues and GPs.

INTERNAL PATHWAYS (FOR TREATMENT- PSYCHIATRY & THERAPY)
Psychiatry pathway
Change idea: review of psychiatry wait list

PDSA 1 (September 2022): A small team was convened to review the psychiatry wait list of 73 young people—1 young person had even been waiting for over 12 months for a psychiatry review. The team approached each young person's named clinician or therapist to explore whether they still needed psychiatry input and cross-referenced this with the medical records and MDT meeting minutes. This identified a number of young people who had completed therapy and were in fact ready for discharge or transfer, or the initial crisis had resolved and there was no longer a need for psychiatry. After this initial exercise, only 30 young people were left awaiting psychiatry input.

Change idea: introduction of psychiatry clinics and joint reviews

PDSA 1 (October 2022): Psychiatry clinics were set up three mornings a week to offer appointments to young people on the list. Prior to this, once the young person had an initial review by a psychiatrist, they would then be placed onto another wait-list for psychiatry allocation, occurring on a monthly basis. To maximise engagement, young people were offered the choice of face-to-face reviews at any of the three service sites, or a virtual appointment.

Our theory was that by introducing more regular clinics, this would improve flow. We found that this approach led to a reduction in the wait list and more capacity within the psychiatry team to work proactively to support young people.

PDSA 2 (November 2022): Learning from this identified referrals where it was evident that a comorbidity, risk or other health concern warranted a joint assessment with psychiatry. As the psychiatry capacity grew, we were able to undertake routine assessments jointly with psychiatry where needed or offer a timely joint review with psychiatry following MDT discussion usually within 1–2 weeks.

Change idea: medication review and prescription clinics

PDSA 1 (December 2022): A weekly medication review clinic and prescription clinic were introduced in order to support the non-urgent psychiatry tasks in a structured way. Where appropriate, service user preference was supported, for example, if families prefer their GPs to provide prescriptions, further reducing bottlenecks in psychiatry capacity.

Therapy pathway
Change idea: review of therapy wait list

PDSA 1 (September 2022): A small team was convened to review the wait list. The notes were reviewed for each young person, and a status and progress update sought from the holding clinician involved. Rag ratings of cases on the waiting list were also reviewed, and the team prioritised allocating cases that remained red. Then cases were allocated according to length of time on the waiting list.

PDSA 2 (November 2022): The capacity of the therapies team was determined based on the number of sessions available, expertise and experience of the therapists and job plan reviews.

Allocations considered location, enabling therapists to base themselves in one borough. Job plans were continually reviewed, providing up-to-date monitoring of capacity available.

Where cases were also open to other services, meetings were held to review the need for CEDS continued involvement. Where possible, we closed cases if either progress was being made or the young person had a preference to continue treatment with other services, with the option of consultation from our service as needed.

BACK DOOR (DISCHARGE PROCESS)
Change idea: caseload audit

PDSA 1 (September 2022): The Trust's clinical record system, RiO, was used to undertake a review of inactive cases on the caseload. The aim of this was to identify those who had not had clinical contact in the last 6 months. Learning from this identified 240 patients on the caseload with 65 patients inactive due to 3 main reasons: over 18s awaiting transition to adult services, those discharged from care with pending administrative tasks, and cases that had inadvertently slipped through the net.

Prioritising those over 18 years of age, the team facilitated the transition to adult services or discharge back to primary care. We found many were awaiting completion of discharge summaries, while others were waiting for final appointments which were prioritised.

Reviewing cases who had fallen through the net, we identified a number of young people who had outstanding or incomplete care plan actions. Working with our duty team, we reached out to all patients in order to complete tasks if deemed appropriate or invite them for closing sessions.

Additionally, we rectified coding errors that led to the inadvertent placement of patients in our service by other teams, transferring them back to their correct caseloads.

PDSA 2 (April 2023): Key learning from PDSA 1 highlighted was that there was no clear place to discuss these issues on a regular basis, and so a monthly caseload audit was introduced. Main themes from PDSA 1 formed the focus of the monthly audit, including highlighting patients approaching their 18th birthday, initiating transition processes and monitoring those with no contact for over 6 months. An action tracker was introduced to identify patients not taken on and assign responsibility for completing letters.

Change idea: review of discharge letter

PDSA 1 (May 2023): Learning from the previous two cycles highlighted that discharge letters were time-consuming to complete and at 10 pages long contributed to delays. Due to the volume of assessments and the number of patients needing to be discharged, staff were unable to produce discharge summaries on time. A shorter 2-page document was produced modelled on a GP discharge letter containing care and treatment received and the ongoing care plan.

These interventions have yielded success, resulting in a caseload of 110, with 13 inactive patients around April 2023. These remaining cases were actively managed with supporting the process of transitioning to adult care and others scheduled for discharge following arranged closing sessions. At present, there are no inactive cases.

Change idea: staff recruitment campaign

PDSA 1 (July 2022): Focus groups were conducted and Away Days arranged with the staff to understand their hopes from recruitment. What was important to staff was having expert, supportive and collaborative colleagues, who could be role models to juniors, offer containment and confidence to the team. As such, job descriptions were revised to emphasise highly skilled and experienced staff who may contribute towards promoting a warm and collaborative culture.

PDSA 2 (December 2022). We used existing meetings at local and Directorate level, including interface meetings with local CAMHS, inpatient and adult services to promote our search for staff. We offered interested colleagues taster days with the team to experience the service. We also reached out to local universities to launch student placements for nurses and psychology trainees. This led to successful recruitment, going from 64% staffing in July 2022 to 77% posts filled by April 2023. Currently, there are no vacancies.

RESULTS

Outcome measure

There was an improvement in the outcome measure as evidenced by a shift on the SPC chart. Over the period of the project, the average waiting time from referral to assessment reduced from 17 weeks to 2 weeks, representing an 88% reduction (figure 2). This reduction has been sustained since the work ended.

Process measures

Process measures were the number of patients on the psychiatry internal waiting lists and the number of patients on the therapy internal waiting list. For the psychiatry wait list, the number of patients at the start of the project was 73, which had reduced to 0 by the end of testing (figure 3).

For the therapies wait list, the number of people waiting at the start of the project was 50, which had reduced to 0 by April 2023 (figure 4).

Balancing measure

The first balancing measure was the number of inactive cases. During baseline, the number of inactive cases was 65. By the end of testing, this had reduced to 0 (figure 5).

The transformation is striking, with the service having transitioned from an annual expenditure of £130 323.21 on Agency staff to 0 as of February 2024.

LESSONS

Impact of the interventions

The QI project has led to successful reductions in wait times from referral to routine assessment from 17 weeks to 2 weeks within 12 months. Access to treatment pathways including psychiatric input and therapy has improved, and families are able to access this within 1–2 weeks.

This work tackled different parts of the CEDS pathway, testing different ideas in different areas. However, there were several themes across the ideas tested that can be described as:

Reviewing and managing existing waitlists.

Revision of forms/letters.

Use of trackers and audit.

Case list review.

These themes enabled us to embed more effective processes for managing flow.

The change ideas that made the most impact included:

Taking out steps in the process that cause delays and duplication (triage step and use of single assessor instead of 2).

Weekly referral meeting and use of tracker with time frames.
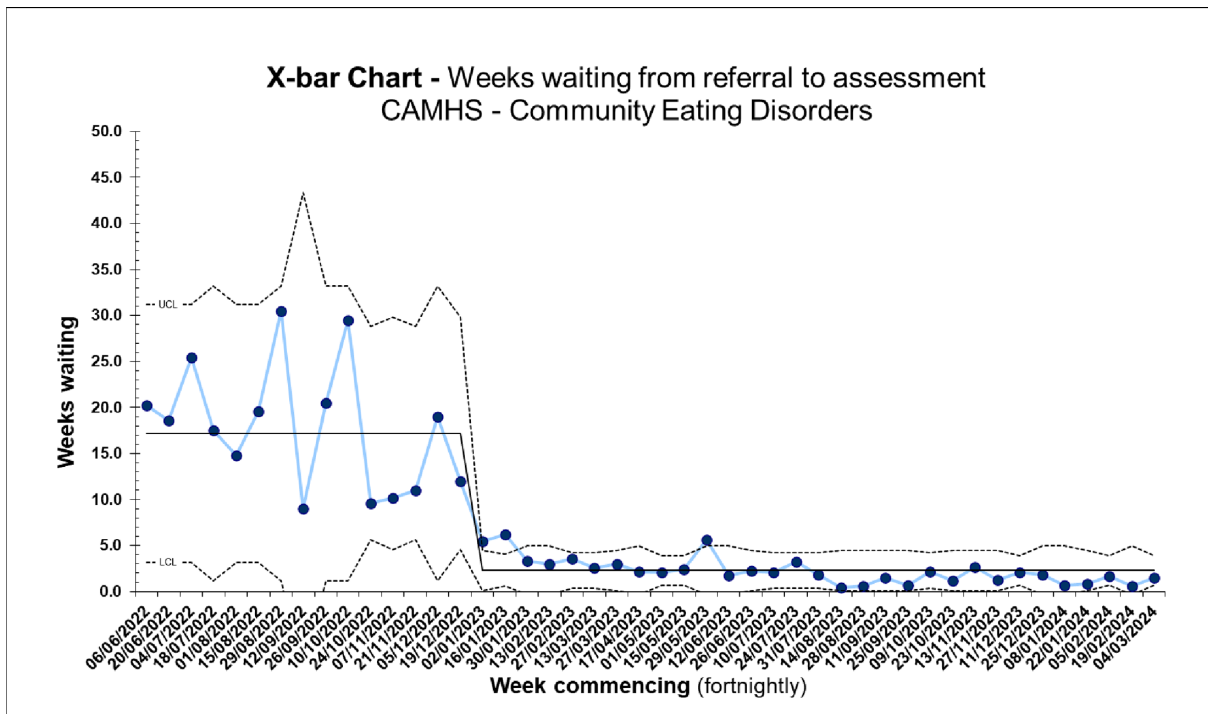
Figure 2 X-bar chart demonstrating average wait time from routine referral to assessment from 17 weeks to 2 weeks (June 2022 to March 2024).

These change ideas allowed us to free up more capacity in the team to manage the front door more effectively.

The team has embedded effective interventions into standard work and normal practice. All QI work at East London NHS Foundation Trust follows a standard approach to implementation to consider.

Standardisation: The team has created standard operating procedures and clinical governance procedures.

Documentation: The team has outlined their new referral form, assessment process and allocation process as well as transitions and discharges.

Measurement: The team continues to monitor their level of performance through a performance dashboard. The leadership team meets monthly to review performance, and the leads meet with the performance team regularly.
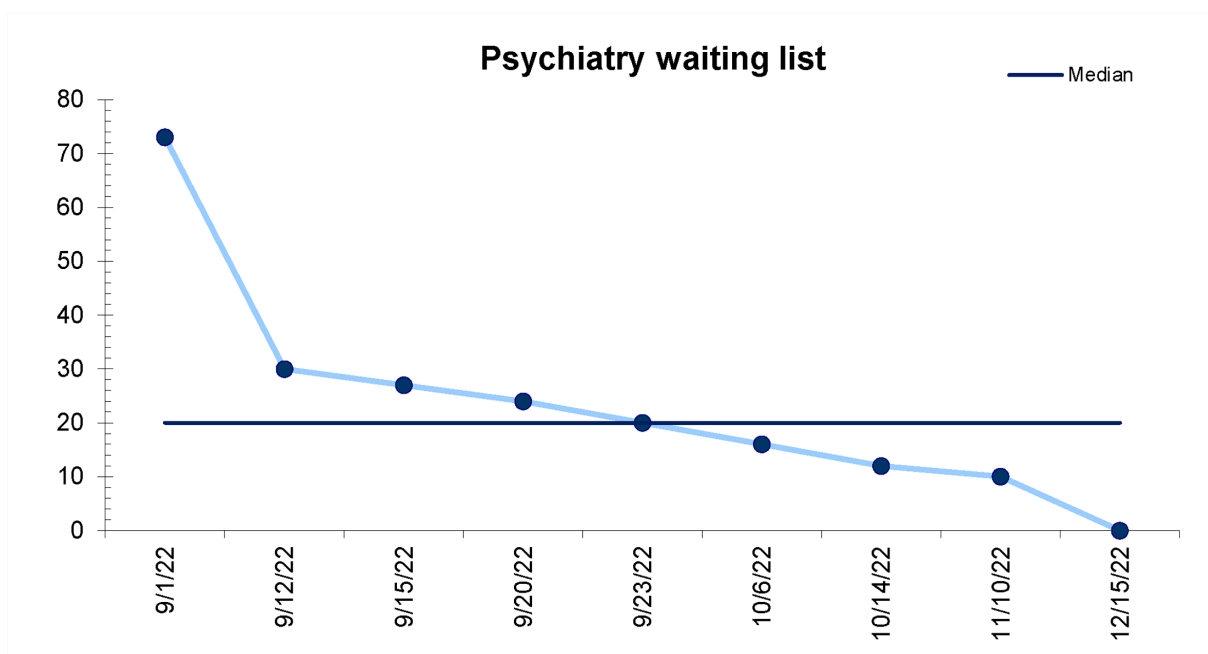
Figure 3 Psychiatry wait list numbers between September and December 2022.
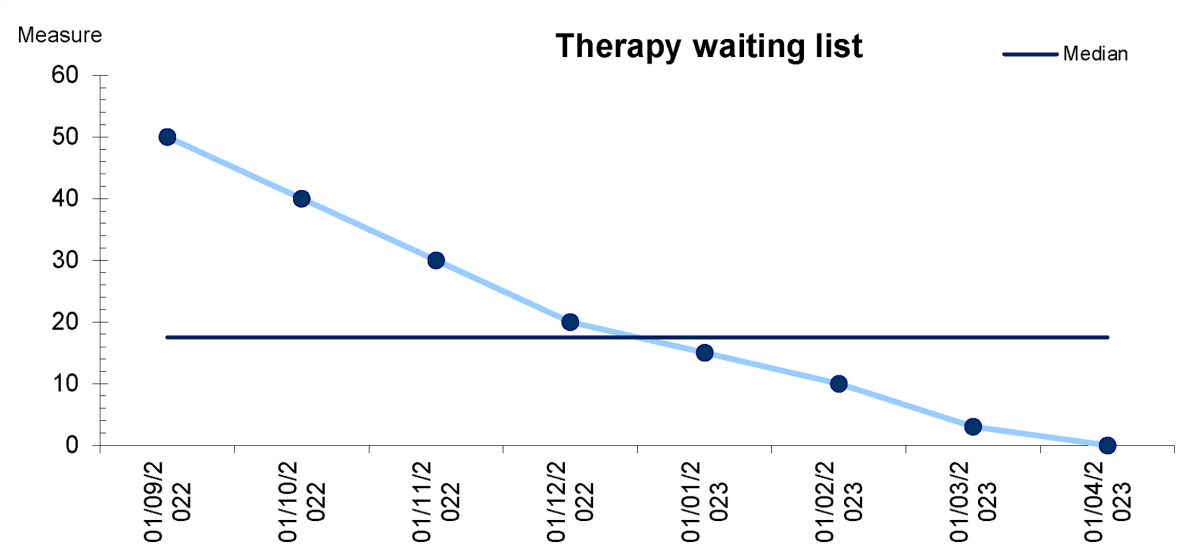
Figure 4 Therapy wait list number between September 2022 and April 2023.

Use of QI

The QI framework was used within a context of setting a clear vision for the service and investing in opportunities to build the will for change and create the capacity to undertake improvement work. This yielded positive results that we have used to shape the culture of the service and to continue to have innovation and systems thinking as key.

The QI project has enabled a positive culture shift in the service, thus creating a more joined-up, responsive and dynamic team, which is young person and family focused, and values the power of collaborative and compassionate leadership.

Leadership

We believe that this significant piece of improvement work demonstrates the richness and power of using a QI framework, in hand with high-impact leadership. The

Institute for Healthcare Improvement (IHI) white paper on High Impact Leadership[24] highlights core behaviours to improve care, improve the health of populations and improve cost including person-centredness, front-line engagement, relentless focus, transparency and boundarilessness. These values have been inspirational to the leads of the project and have undoubtedly influenced the approach to the QI work.

The QI project leads have extensive QI training and experience. The Trust is passionate about QI and ran capacity and flow work streams, so the permission to improve flow was clear. The team also had the support of the directorate leads to implement positive change, and their 2021 service review reflected that this was something they welcomed.
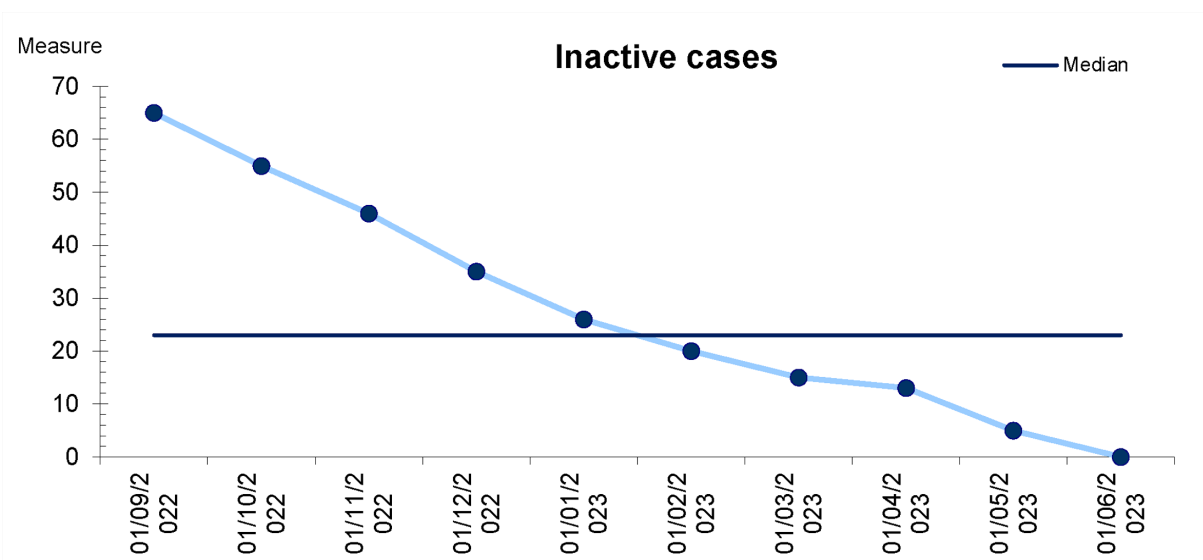
Figure 5 Inactive cases between September 2022 and June 2023.

LIMITATIONS

Our main limitation is the degree of service user involvement on this project. Unfortunately, there was not a service user or carer on the QI project team itself, but the project did use feedback from young people and families, including information from complaints and compliments to inform the work.

The service itself, despite its extensive expertise and large three borough-wide catchment area, is a relatively smaller service compared with local CAMHS services. However, much of the approach is generalisable and we believe the results could be scalable.

CONCLUSIONS

This work looked to improve access to a CEDS for children and young people across East London. The aim of the work was to reduce the waiting time from referral to assessment from 17 weeks to 2 weeks in 12 months. Several change ideas were tested. The QI project has led to successful reductions in wait times from referral to routine assessment from 17 weeks to 2 weeks within 12 months. Access to treatment pathways including psychiatric input and therapy has improved, and families are able to access this within 1–2 weeks.

Our performance has significantly improved, and young people and families are able to access support sooner and well within National access and waiting time targets. The project has also led to timely access to treatment pathways and efficiencies in the service due to improved flow and discharge/transition through the service.

This QI project was a 'life-line' to the service and it came at a critical time where the future of the service was at stake. The leadership knew that taking on the challenging task of reducing waiting time under a QI framework would generate energy, ideas and momentum from different members of the team, and this led to instilling hope within the team each time we met to review the waiting time chart. Given that the project has improved service performance, this has in turn led to increased staff morale, sound staff recruitment and retention. This will have long-term financial benefit.

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