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**Results and Learning from the Healthy Outcomes for People with Eating Disorders (HOPE) New Care Model (Provider Collaborative) pilot: More investment required to address demand and capacity in adult community and inpatient eating disorder services**

*This article reports on pilot results and lessons learned from the HOPE New Care Model (Provider Collaborative). Pre-pandemic 12 beds were needed per million population. Demand for beds could be reduced by addressing the variance in mean length of stay between inpatient providers and offering evidence-based inpatient and community treatments. More investment is required to address demand and capacity in both adult community and inpatient eating disorders services.*

The aims of the new care model (NCM) pilots in England were to bring care closer to home by reducing out-of-area admissions, to reduce the length of inpatient stays, to improve client outcome and experience, to encourage integrated care and provider collaboration, and to reinvest savings into community services (NHS England, NHSE, 2021a). There were two successful bits for the initial NHSE pilot of the NCMs for adult eating disorder (ED) services, namely CONNECT in West Yorkshire lead by Leeds and York Partnership NHS Foundation Trust (FT) (NHSE, 2021b) and the Healthy Outcomes for People with Eating Disorders (HOPE) NCM in the South of England with Oxford Health NHS FT as lead provider. The pilots were the forerunners to the introduction of Provider Collaboratives (PCs) in England. For a more detailed introduction to PCs see Sodeke-Gregson’s (2021) article in this special edition.

This article describes the results and learning from the initial HOPE NCM pilot.

The HOPE NCM was established in ‘shadow form’ (i.e. where the lead provider accepted delegated commissioning responsibilities from NHSE, but not financial liability) in July 2018 and brought together several providers of inpatient and community services for clients with ED. The large geographical network initially covered a population of 5.2 million and was a collaboration between 6 NHS Trusts (2gether NHS FT, Avon and Wiltshire Mental Health Partnership NHS FT, Berkshire Healthcare NHS FT, Oxford Health NHS FT, Southern Health NHS FT, Surrey and Borders Partnership NHS FT) and the Priory (offering independent inpatient beds only). The network comprised 3 NHS inpatient units (30 beds), 2 independent inpatient units (approximately 13 beds), 5 day services and 8 adult community ED services.

With the roll-out of PCs across the country, some (community and inpatient) partners decided to develop their own PCs to offer care closer to home in their geographical locations. Consequently, from September 2019 onwards, the HOPE PC footprint was reduced to 3 NHS Trusts and the Priory covering a population of 3.5 million. The learning from the smaller HOPE PC including results and outcomes, demand and capacity, and impact of the pandemic is reported in Ayton *et al*. (2021). Having functioned in ‘shadow form’, the HOPE PC is scheduled to go ‘live’ in autumn 2021 when the lead provider will accept full contractual responsibility for the PC.

Moving away from attitudes based on a competitive internal market approach (Alderwick, 2021; Moberly, 2018) towards embracing values of integration, collaboration and trust between various NHS and private sector partners took time. One factor that helped the process, was setting up a clinical governance group (CGG) with task and finish groups (represented by 1-2 senior clinicians from each partner) who developed a comprehensive Standard Operating Procedure (SOP) for the HOPE PC. The SOP described in detail all aspects of the clinical functioning of the PC, as well as clarifying roles and expectations of all stakeholders. In this regard, the SOP addressed the following areas:

* Single Point of Access (SPA, including the referral process, responsibilities, and response times of the SPA).
* Data Collection. Providers agreed to routinely collect outcome data using the following measures: Eating Disorder Examination- Questionnaire, EDE-Q; Clinical Impairment Assessment, CIA; Patient Health Questionnaire, PHQ-9; Generalised Anxiety Disorder Assessment, GAD-7; body mass index (BMI, admission and discharge); and to collect client and carer satisfaction data using their local measures.
* Criteria for defining and prioritising ‘emergency’, ‘urgent’ and ‘routine’ referrals were agreed:
  + ‘emergency’ referrals required admissions within 24 hours to acute medical/psychiatric settings or inpatient ED beds when clients had acute physical or mental health emergencies that constituted imminent threats to life. This included clients with high risk and treatment refusal needing Mental Health Act (Department of Health, DoH, 2007) assessments or recalls from Community Treatment Orders (CTOs, DoH, 2007). An ED and one or more physical health risk factors as defined by the MARSIPAN Checklist (Royal College of Psychiatry, 2015) had to be present (e.g. BMI <13; recent weight loss of ≥1 kg for two consecutive weeks, little or no nutrition for >5 days; acute food refusal or <500 kcal/day for more than a week; pulse <40; low blood pressure with postural dizziness; core temperature <35°C; sodium (Na) <130 mmol/L; potassium (K) <3.0 mmol/L; raised transaminase; glucose <3 mmol/L; raised urea or creatinine; bradycardia.
  + ‘urgent’ referrals required admissions within 1 week i.e. clients with anorexia nervosa (AN) and BMI <15 (as per MARSIPAN checklist) plus one or more of the following: lack of capacity or inability to engage with or respond to community interventions; consistent weight loss despite outpatient/day treatment (e.g. 0.5 – 1 kg per week); social isolation and lack of support from family/friends; extreme compensatory behaviours (e.g. 14 or more episodes/ week) of purging or excessive exercise (> 1 hour per day); unstable physical health parameters e.g. electrolyte abnormalities or cardiovascular compromises; dietary intake <1000 calories per day; clients who had been detained as inpatients in non-ED units or with high risk and treatment refusal needing MHA assessments or recalls from CTOs who could wait up to a week for beds.
  + ‘routine/planned’ referrals could remain on the waiting list for longer than a week e.g. when outpatient psychological treatment had been insufficient to effect change with continuing weight loss; for planned admissions with commitments to full recovery; low weight and medically unstable (usually chronically unwell) clients who were unable to manage in daily life and required help with weight stabilisation or modest weight restoration. Occasionally, clients who suffered from severe and medically unstable bulimia nervosa were accepted for symptom interruption of inappropriate compensatory behaviours, including clients with diabetes, pregnancy, or not responding to intensive community treatment.
* Responsibilities and response times of the Clinical Activity Panel (CAP). Senior clinicians from all providers met weekly to prioritise all referrals as either ‘urgent’ or ‘routine’ and agree on the allocation of beds based on the risks and clinical presentations of clients. CAP was informed of ‘emergency’ admissions which occurred between meetings.
* Respective responsibilities of the referrer/community ED services (including while clients were waiting for beds), inpatient providers, NHSE case managers, HOPE network manager, and HOPE clinical Leads.
* Definitions of ‘appropriate’ and ‘inappropriate’ out-of-area’ bed placements.
* Process for the authorisation of parallel searches for out-of-area placements (i.e., for clients who required an urgent bed which CAP was unable to offer within the PC).

All referrals came through the SPA. Within the context of a national shortage of beds and severe pressures on under-resourced community teams to manage very unwell clients while waiting for a bed, providers initially, as would be expected, wanted their own clients to be prioritised at the CAP meetings. Over time the CAP became a forum where clinicians took collaborative ownership and shared responsibility for all clients in the network when it came to the allocation of beds and decisions on which clients had to continue waiting. Having the SOP and previously agreed criteria for ‘emergency’, ‘urgent’ and ‘routine’ referrals were key in this collaborative decision-making process.

**Outcomes**

During the 13-month pilot (1st August 2018 - 31st August 2019), 282 clients were referred to the network via SPA. 96% were female. Mean age was 31.2 years (range 17-67). 21% of referrals had potentially life-threatening levels of malnutrition and BMI’s below 13. According to the DSM-5 (2013) severity ratings, 59% of referrals had extreme AN (BMI <15) and 18% had severe AN (BMI 15-16). 6% of referrals were deemed emergency and 59% as urgent and ideally needed a bed within 24 hours or 7 days respectively. There were 15-20 clients per week waiting for a bed. The average waiting time for beds for all referrals was 25 days. In comparison, the average waiting times for the smaller HOPE network went up from 33 pre-Covid to 42 days during the pandemic (Ayton *et al*., 2021).

In terms of referral outcomes, 35% of all clients referred for inpatient treatment were admitted to HOPE NHS inpatient units, 14% to HOPE independent inpatient units, and 6% were admitted outside the network. A total of 28% of clients were not admitted for a range of reasons e.g., some no longer required a bed, some declined a bed, and some were admitted to acute psychiatric hospitals. Referrals (17%) from outside the footprint were declined as there were no PC beds available to accommodate external referrals.

There were significant variations in the mean length of stay (LoS) between the 5 HOPE inpatient providers (e.g., 64 days vs 137 days between shortest and longest mean LoS) with an average of 103 days across the PC.

**Lessons learned**

Reflecting on the HOPE pilot there were many learning points. A dearth in the literature on the number of adult inpatient beds required per million people and the lack of accurate data on the demand and capacity for inpatient beds in England make the financial risk and liability for lead providers difficult to quantify. The average LoS per PC will partly determine how many beds are required. In this regard, the HOPE pilot data suggested that with an average LoS of 103 days, the network required 12.1 adult inpatient beds per million population i.e., 63 beds for 5.2 million people (pre-pandemic) but it only had about 43 beds (i.e., 8.3 beds/million population, 68% capacity to meet demand). The reduced HOPE PC has 6.3 beds/million but require 12.5 beds/million, with an average of 107 days LoS. Since Covid-19 the demand for inpatient beds in the HOPE PC has increased by a further 20% (i.e., 15 beds/million population, Ayton *et al*., 2021).

The HOPE NCM provided a context for piloting the ‘Oxford Model’ of integrated cognitive behavioural therapy for ED (I-CBTE) with promising outcomes in Oxford (Ayton *et al.,* 2021; Gardner & Trueman, 2021). In essence, I-CBTE offers a single evidence-based psychological model (based on enhanced CBT for ED, Calugi *et al*., 2017) across the inpatient, day and outpatient services. Where possible, therapy starts before the admission and continues during and after discharge (40 sessions in total) and is delivered by the same psychological therapist rather than having handovers between therapists. A detailed I-CBTE formulation ensures continuity and consistency in the client and MDT’s understanding of the ED as well as the treatment plan to address the relevant maintaining factors. The I-CBTE formulation, expands on the CBT-E formulation described by Fairburn (2008) and the stepped-care model of Dalle Grave (2013). Rather than traditional CBT, which is delivered in a 1-1 format between therapist and client, I-CBTE endeavours to deliver CBT for ED by the whole multi-disciplinary team (MDT). The individualised I-CBTE formulation for every client, also considers additional maintaining factors (e.g., physical and mental health co-morbidities; social care factors such as housing, education/employment) and guides the roles of every MDT member in terms of how to best support the client. Members of the MDT work in a co-ordinated and collaborative approach with the client to address their range of maintaining factors through weekly goals setting and the development of new skills and strategies (Ayton *et al.,* 2021; Gardner & Trueman, 2021).

There were significant variations in LoS and short-term outcomes between PC inpatient providers. Independent providers offered longer average LoS, compared to NHS inpatient providers, which corresponds with the findings of NEL (2019) who reported that admissions to independent providers in England had longer stays compared to NHS providers. Additionally, the Oxford pilot of I-CBTE, compared to eclectic models of other UK inpatient providers, achieved higher mean discharge BMIs (18.2 versus 17 respectively) in a shorter mean admission period (85 vs 107 bed days respectively). More effective evidence-based models of inpatient treatment, can therefore reduce the average LoS, improve throughput and capacity, and ensure better outcomes (Ayton *et al.,* 2021). If the I-CBTE model was rolled out across the HOPE PC, it would improve bed capacity and require about 10 beds/million population.

PCs for children and young people produced significant savings in inpatient costs (O’Shea, 2020), but not for adult secure sites (Niche, 2018). Given the vast demand and capacity discrepancies, postcode lotteries of services (e.g., some PCs will have an over or under supply of inpatient services) and variances in LoS across providers it is possible that not all adult ED PCs will make cost savings to invest in community ED services.

The actual capacity and number of beds available for the HOPE network, remained unclear throughout the pilot due to different provider contracts with NHSE. For example, the Priory had a national contract with NHSE, meaning that beds were not ring-fenced for the HOPE PC, with competing HOPE network and national demands and waiting lists for their independent beds.

Because the demand for inpatient beds consistently outweighed capacity, the historically under-resourced community ED services had to manage very high-risk clients while waiting for beds. Apart from the life-threatening risks and impact on clients and their families/carers, the demand and capacity problems placed significant pressures on primary care (e.g., increased visits to GPs, A&E and acute hospital admissions) and also impacted on morale, retention and risk of burnout in staff working in community ED services.

There were commissioning challenges for complex clients with co-morbidity (e.g., people who have a diagnosis of autism spectrum disorders or extreme personality disorders) for whom it was difficult to find suitable beds. There is a national lack of striated beds for ED (Ayton *et* al. 2021) and this meant that clients with ED and high levels of behavioral difficulties had longer waiting times. Additionally, there was a latent client demand within the system including clients within the acute sector (e.g., gastro-intestinal wards) and adult mental health units which is often ignored in demand and capacity calculations.

Geographical inequity of access and a ‘postcode lottery’ of services is a concern for PCs (Niche, 2018). Across the 7 NHS and independent providers there were noticeable variations in levels of funding and access to community, day and inpatient services which impacted on flow through the care pathway. Variations between community services (e.g., in staffing compositions, level of engagement of care coordinators with inpatient providers, ability to offer seamless/ongoing psychological therapy) affected outcomes, length of admissions, and client and clinician experiences. Similarly, whereas only 6% of clients were placed in beds outside the initial HOPE footprint, the out-of-area placements increased to a third in the smaller HOPE PC after September 2019. This was in part because the smaller PC reduced 33% in population size but lost 50% bed capacity (i.e., 21/43 beds when an independent and NHS inpatient partner joined other PCs) and due to a national increase in demand for beds (NHS Digital, 2021) and the pandemic (Ayton *et al*., 2021).

Although providers in the HOPE NCM agreed to use the same outcome measures, data collection was sub-optimal mainly due to a lack of funded resources and allocated staff for data collection and analysis within each provider.

Despite the many challenges the PC had several benefits. Collaboration between clinicians and providers improved with more active management of the whole care pathway. Mutual trust and relationships improved, and opportunities arose for peer supervision and to learn from each other’s best practices. This corresponded with the findings of the independent evaluation of NCMs (Niche, 2019) that NCMs generally produced a greater sense of ownership, empowerment and willingness in organisations to move from being competitors to partners in service improvement.

Finally, it became clear that significantly more investment is required in adult community ED services to meet the demand for an increasing prevalence in ED across the life span (NHS Digital, 2020) and to reduce the need for inpatient beds (Ayton *et al.,* 2021). The future success of PCs will also depend on NHSE and NHS Improvement ensuring funding for adequate additional inpatient capacity (Ayton *et al.,* 2021). In this regard, the demand for inpatient beds has quadrupled in England since 2007/8 (NHS Digital, 2021) and the demand for beds is unlikely to reduce in the immediate future.

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