

Promoting Population Behavioral Health in a Safety-Net Health System During the COVID-19 Pandemic

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The COVID-19 pandemic has been expected to lead to substantial increases in need for behavioral health care. A population health framework can facilitate the development of interventions and policies to promote the equitable distribution of care across the population. This column describes the application of population behavioral health principles in a safety-net health system during the

pandemic. The approach includes stepped models of care, interventions to target individuals at high behavioral health risk, and measurement-based care. Early data suggest that these strategies have resulted in expanded behavioral health care capacity.

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COVID-19 has been expected to have severe consequences for behavioral health worldwide. A population health approach provides a framework for addressing the anticipated increase in service need and barriers to accessing care. Population health refers to health outcomes distributed across a group of individuals, the determinants of these outcomes, and the interventions and policies that influence these determinants and outcomes (1). COVID-19 and a concurrent national reckoning on racial and social injustice have presented challenges and opportunities for health systems to provide effective and equitable health care. This column describes the initial application of a population behavioral health framework across various levels of outpatient care in an urban safety-net system to address behavioral health needs during the COVID-19 pandemic.

CONTEXT AND PREPANDEMIC STATE

Cambridge Health Alliance (CHA) is a public safety-net health system serving approximately 140,000 patients annually in Boston's Metro North region. The system includes two hospitals and 15 community-based primary care practices. CHA's Department of Psychiatry includes psychiatric inpatient units, consultation with medical inpatient units and emergency departments, a partial hospitalization program (PHP) and substance use intensive outpatient program (IOP), outpatient psychiatric services (including child and adolescent services and substance use services), and integrated behavioral health services within primary care.

Across the outpatient services, integrated care service, PHP, and IOP, there are approximately 250 providers in psychiatry, psychology, and social work; 100 are trainees. Many providers work in multiple behavioral health settings. The approximate numbers of staff in the integrated care service, PHP, and substance use services (including IOP) are 50, 11, and 13, respectively. Of CHA's patient population, 65% are either publicly insured or uninsured, and 45% are insured under risk-based payment contracts, including 20% under CHA's Accountable Care Organization (ACO) with the Massachusetts Medicaid program, MassHealth.

CHA's Department of Psychiatry was undergoing substantial change before the pandemic. New departmental leadership had been appointed in fall 2019 and had established the

HIGHLIGHTS

- This column describes the application of a population health framework in a safety-net health system to address increases in behavioral health service need and barriers to accessing care secondary to COVID-19.
- Stepped models of care were implemented to identify individuals at greatest need, standardize care and treatment goals, and expand capacity for new patients.
- Several novel interventions were implemented targeting high-risk populations and specific behavioral health needs during the COVID-19 pandemic.

novel Division of Population Behavioral Health Innovation in January 2020. The division's aims were to facilitate the prevention of behavioral health conditions, support early identification and intervention, and guide improvements to clinical services for serious mental illnesses.

Before the pandemic, processes to ensure timely outpatient treatment for those with severe conditions included a marker for urgency level on referrals and a review of referrals by clinicians. In the integrated care setting, a stepped model of care supported decision making about referring patients for ongoing outpatient psychiatric care. No other standardized processes for levels of care had been established. There was already unmet behavioral health need; for example, in January and February 2020, the waitlist for intake to outpatient adult psychiatric services contained an average of approximately 400 patients.

DESIGNING AND IMPLEMENTING THE MODEL

Early in the pandemic, health systems focused on access to care. CHA implemented behavioral health telehealth capabilities in late March 2020; the details have previously been reported (2). The psychiatric inpatient and consultation services implemented virtual visits to connect onsite patients with remote providers. For outpatient psychiatric and integrated care services, telehealth permitted patients to engage in care while remaining sheltered at home. The integrated care service also continued performing asynchronous e-consultations.

Central to addressing the impending strain on behavioral health care capacity was the development of stepped models of care in the outpatient psychiatric services in early April. Stepped models have been associated with greater reach, treatment effectiveness, and cost effectiveness compared with standard care models (3). The pandemic catalyzed the urgency to implement a stepped model to address the large waitlist for outpatient adult psychiatry, which grew from an average of 400 patients to a peak of 650 patients in April. This urgency, combined with CHA's public service mission, served as motivation for outpatient service leadership and the departmental population health and strategic leadership to collaborate on a psychiatric outpatient stepped model.

Several new channels of communication were instituted to refine and disseminate the stepped models. A weekly meeting with leaders in the outpatient adult psychiatric service was established to refine the model and discuss its implementation. A parallel process occurred to implement the stepped model in outpatient child and adolescent psychiatry. Last, weekly grand rounds were repurposed as a department-wide huddle to provide rapid communication to all staff regarding system changes.

The stepped models described three tiers that specified criteria for level of risk, suggested intervention, and treatment goal (see the table in the online supplement to this column). The highest-severity tier was designed to identify individuals at risk for emergency or inpatient psychiatric

utilization. Decision aids for stratification, such as Patient Health Questionnaire-9 score cutoffs, were included as suggestions for clinicians. Patients in the highest tier were recommended to be seen by a multidisciplinary team, integrating psychopharmacology, psychotherapy, and as-needed social service support. Patients in the lower-level tiers of severity were recommended to be seen on a less frequent or time-limited basis. Finally, treatment goals varied by tier: for the highest tier, the goal was tertiary prevention (maintaining safety in the community and preventing utilization of acute services); for the middle tier, secondary prevention (preventing progression of disease); for the lowest tier, primary and secondary prevention (preventing recurrent illness and supporting resolving illness).

Outpatient clinicians were asked to stratify their existing patients into tiers of severity. Because patients in the lower-severity tiers were expected to be seen less frequently, clinicians would at times need to discuss managing safe reductions in appointment frequency. Because this topic could be challenging, clinicians were provided suggested scripts to guide such conversations.

After implementing the stepped models, additional tactics were used to identify and engage patients in the highest-severity tier. To prioritize and expedite treatment for these individuals, clinical reviewers (who were behavioral health clinicians themselves) applied the stepped models to patients awaiting intake and patients who had declined or not presented after referral. In addition, a dedicated behavioral health care coordination team for CHA's MassHealth ACO used claims data to identify individuals with recent acute service utilization and flagged them for engagement with clinicians and community-based care managers.

Efforts to target interventions to the specific, anticipated needs of the population included training on topics such as cognitive-behavioral skills to promote coping, fostering resilience, using telehealth (including training specifically for telehealth with children), and short-term family therapy, among others. The substance use service collaborated with CHA primary care sites to facilitate urine drug tests and, when clinically appropriate, extended prescriptions for controlled medications to minimize pharmacy access barriers.

For patients in the low- and middle-severity tiers, the department set a goal of primary and secondary prevention of symptoms. These patients were offered enrollment in a publicly accessible online platform (CHA MindWell) for wellness-based interventions. Enrolled participants could access virtual wellness programs at CHA's Center for Mindfulness and Compassion. A new 8-week mindfulness-based cognitive therapy for resilience (MBCT-R) intervention was adapted from standard mindfulness-based cognitive therapy for depression (4) as a live, video-based group for the COVID-19 context and launched in mid-April. The program was intended to enable patients to be seen by providers in time-limited sessions.

Patients in the MBCT-R program were monitored with a computerized adaptive testing program, CAT-MH, which

provided rapid, remote, ongoing screening to assess symptoms and determine appropriateness for the level of care (5). Patients were monitored with CAT-MH weekly during the 8-week program and monthly after program completion. Scores indicating moderate to severe depression not responding to the intervention activated outreach from group leaders for additional support or from coordinators to facilitate access to individual appointments or emergent care.

In the integrated care service, the preexisting stepped model of care was adapted for COVID-19. Whereas in the pre-pandemic period, individuals in the highest-severity tiers would have immediately been referred to outpatient psychiatric services, during the initial weeks of the pandemic, the integrated care service continued to care for these patients. This policy was a joint decision between the integrated care and outpatient psychiatric services and was communicated to integrated care providers through daily service huddles. The pause in referrals was accomplished by reducing the appointment frequency for select patients as clinically appropriate and reducing the number of unscheduled appointment slots. When referrals from the integrated care service to the outpatient psychiatric services resumed, they did so at reduced volume, with only patients at the highest tier of severity being referred.

The integrated care service also launched a novel program to support patients with suspected or confirmed COVID-19. CHA had organized specialized medical care for COVID-19 in a respiratory clinic combined with longitudinal, telephone-based community management. By late March, medical providers had identified a substantial behavioral health need among this population, particularly with respect to anxiety and bereavement. Within 72 hours, the integrated care leadership implemented a new process for providing urgent behavioral health support for these patients. The program implemented a novel staffing model in which patients were first contacted by a behavioral care manager providing supportive services who could then refer them to a clinician as needed. This process enabled timely support because care managers aimed to respond to requests within 24 hours after referral.

Finally, because the PHP and IOP were suspended as a result of challenges with technology, reimbursement, and confidentiality surrounding telehealth-based groups, an outpatient psychiatric transitional care team staffed in part by PHP team members played a critical role in stabilizing patients who could not wait for appointments in the standard outpatient setting. Urgent referrals were facilitated from other levels of care, including for patients being discharged from the inpatient setting. The service also offered limited onsite availability to accommodate patients with inconsistent access to audio-video hardware or Internet connectivity. Patients who would have been appropriate for PHP or IOP referral were referred either to the transitional care team or to other local providers still offering PHP or IOP care, largely via telehealth.

PRELIMINARY OUTCOMES AND DISCUSSION

The use of a population health approach facilitated rapid response to anticipated increases in behavioral health needs and barriers to care in the COVID-19 setting. Telehealth was a means of maintaining provider-side capacity (enabling providers to work remotely and across sites) and facilitating patient-side access (enabling patients to be seen at home). Rates of appointment attendance increased substantially, especially for video (2). The transitional care service took the additional step of providing optional onsite visits. The stepped models of care identified patients whose care could be made less frequent or time limited, creating capacity for new referrals. Well under half of patients in each setting were categorized into the highest-severity tier.

Other changes described reflect the population health goals of addressing the determinants of behavioral health and achieving equitable outcomes across the population. The stepped models articulated standardized levels of care, matching interventions to the level of clinical need that could be applied in an individualized manner. Novel interventions were also implemented for high-need populations (e.g., respiratory clinic support) and for anticipated behavioral health needs (e.g., MBCT-R). The stepped model often articulated a more intensive level of care to be created for patients with the greatest need, because high-risk individuals were to receive ongoing treatment from a multidisciplinary team. Finally, the emphasis on goal-directed treatment as specified by the stepped model and the implementation of CAT-MH monitoring were aligned with the population health approach's focus on measuring outcomes.

Early evidence suggests that the interventions are achieving their intended effects. The adult outpatient waitlist decreased from 650 patients to consistently fewer than 200 patients (lower than pre-pandemic levels). The stepped model enabled the outpatient adult psychiatric service to increase intake from a pre-pandemic level of 90 completed intake appointments per week in February to 110 per week in April and May. This increased intake was supported by capacity provided by the integrated care service (which performed nearly 100 more visits per week in April and May than in February, a 30% increase) and the transitional care service (which increased intakes by 50% in the same period). In addition, 69 patients initiated the MBCT-R program and completed at least one CAT-MH computerized interview between April and June (additional patients initiated the MBCT-R program but did not complete any CAT-MH assessments), and 66 COVID-19 patients were identified for urgent integrated care support between April and May. The substantial expansion of capacity suggests that many of the interventions may be of value outside the pandemic setting. Indeed, COVID-19 has been both a crisis and a catalyst for innovation.

One limitation of the implementation of the outpatient stepped models of care was that clinicians were not asked to report on the stratification of their patient panels. Given

the burdens of providing care during the pandemic, such a policy was felt to be more appropriate for a future iteration. Thus, data on precisely how many patients were stratified to each tier are not available. Systems to capture patient stratification, track progress, and monitor fidelity to suggested treatment are potential future modifications.

Additional next steps for the department include ongoing measurement of behavioral health care demand, utilization, and clinical end points and further implementation of CAT-MH. Tracking outcomes among different population segments, such as racial and ethnic minority groups, children and adolescents, and individuals with substance use disorders, will be critical in striving for health equity.

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