CASE STUDY BRIEF

Leveraging Digital Technology to Improve Behavioral Health Integration with Primary Care

Montefiore Health System's Approach

Domain: Care Delivery
Competency: CD8 Offer access to and integrate with behavioral health services

MARCH 2018

BACKGROUND

Understanding that the integration of mental health and primary care has been shown to improve patient access and outcomes,[1] in 2015, Montefiore Health System began implementing a program designed to better integrate mental health with primary care. Called the Collaborative Care Model (CoCM), its focus is to improve care for both pediatric and adult patients with mental health conditions, including depression, posttraumatic stress disorder, general anxiety disorder, panic disorder, and alcohol use disorder. Three decades of research and over 80 randomized controlled trials have identified the CoCM approach as being effective and efficient in delivering integrated care. [2,3] Montefiore sought to employ this proven care model while also leveraging digital tools to enhance its care coordination capabilities and increase patient volume.

About Montefiore Health System

Montefiore Health System is one of New York's premier academic health systems and a recognized leader in providing exceptional quality and personalized, accountable care to approximately three million people.

Location: The Bronx, Westchester, and the Hudson Valley
Website: www.montefiorehealthsystem.org
VBP Activity:

- Health First since 1994 (~145k lives)
- Emblem Health HIP since 2000 (~74k lives)
- Next Generation ACO since 2017 (~55k lives)
- Empire since 2013 (~25k lives)
- Affinity since 2015 (20k lives)
- Aetna since 2015 (~13k lives)
- Fidelis since 2017 (~24k lives)

APPROACH

Montefiore initiated the CoCM program in 2015, using grant funding from the Center for Medicare & Medicaid Innovation (CMMI) to design, implement, and sustain a model that would increase the availability of behavioral services and test innovative reimbursement methods. Under the CoCM's clinical model, primary care providers (PCP) treating patients with mental health and substance use disorder conditions are supported by a behavioral health care manager and psychiatric consultant. The behavioral health care manager provides brief behavioral interventions, supports treatment initiatives delivered by the PCP, and coordinates care with the PCP and psychiatric consultant using a shared registry to review and monitor the progress of patients. A behavioral health specialist (licensed clinical social worker or psychologist) is also part of the team and provides diagnostic confirmation and short-term psychotherapy when appropriate.

In addition to developing a behavioral health registry in the EMR, the Montefiore CoCM also piloted a smartphone application developed by Valera Health. The app optimizes the effectiveness and efficiency of the CoCM by allowing behavioral health care managers to maintain higher caseloads while improving the treatment of anxiety and depression.

The smartphone application pilot project was implemented in five Montefiore-owned primary care clinics in the Bronx and Westchester County. The project was undertaken in three phases, with the first wave implemented at three sites, later expanding to a total of 429 patients between September of 2016 and January of 2018. The project started small with the vendor, Valera Health, onsite to troubleshoot problems and receive feedback on the technology from the patients and the behavioral health care managers and make necessary adjustments. To improve patient acceptance, patients received demonstrations and tip sheets from the behavioral health care managers for how to use the app. The behavioral health care managers also received training both on using the app and workflow changes, as well as talking points for how to discuss benefits of the application with patients.

The Valera application helped care managers maintain increased caseloads by supporting patient engagement, symptom monitoring, timely follow up, and promotion of patient self-management. Using patient-reported data and other inputs, managers can track patients making little progress and deliver more timely coaching support and communicate with the PCP and psychiatric consultant to make prompt treatment adjustments when needed. Care managers use the application's cloud-based dashboard to connect with patients and providers. Patients access resources, complete patient health questionnaires, and communicate with their care team at their convenience through the app from any Android or Apple device. Because participating patients require less phone calls (missed calls and voicemail phone tag), behavioral health care managers have more time to manage more patients while still communicating frequently through the app's efficient chat feature.

Patients opt-in to passive data collection through the smartphone, such as step count and geolocation, to improve the care manager's effectiveness for self-management coaching. The PCP, psychiatric consultants, and behavioral health specialists use the information from the platform to better manage and collaborate on patient care.

RESULTS TO DATE

Although the following outcomes are non-randomized, the primary care sites with favorable patient enrollment in the application saw care managers increase their caseload from an average of 60-70 to 90-100 patients while improving outcomes. Patients using the Valera app showed higher engagement and follow-up rates compared to patients not using the application, with a 73% patient satisfaction rate and patient-provider contacts per month increasing three-fold. Furthermore, patients using the app received a follow-up contact an average of 8 days after their initial clinical appointment, whereas patients not using the app had their first follow up an average of 19 days later. Improving timeliness of follow ups early in treatment is significant, given research demonstrating these early contacts correlate with better clinical outcomes.

Even with care managers maintaining higher caseloads, the app allowed these important staff to connect more frequently with their patients and in a timelier manner. More patients who enrolled in the smartphone app had higher baseline PHQ-9 scores and often more than one episode of care (i.e., returned for a new trial of psychotherapy and/or medication after discharge) compared to the overall Montefiore CoCM group, suggesting they were more clinically severe patients. Nevertheless, patients using the app demonstrated similar clinical outcomes with the overall Montefiore CoCM group (response rate of ~50% improvement from baseline PHQ-9 score or a nonclinical score of < 10). Thus, overall, the results from those using the application is clinically equivalent and possibly better with greater care manager efficiency.

TOOLS & VENDOR PARTNERS

Valera's approach was to support existing programs with consumer ease-of-use features, data analytics, communication channels, and other patient engagement tools. Components of Valera's approach that contributed to the success of its pilot program included onsite technical assistance and training, as well as timely adjustments made to the application based on patient and clinician feedback. In short, Valera was willing to meet the patients and providers' needs and work through issues in real time.

CHALLENGES WITH IMPLEMENTATION

Changes from traditional care delivery to innovative models, especially those that include technology, are often a challenge. Although many providers adjusted to the new model, it takes time for the providers and patients to become comfortable with new care resources and to subsequently incorporate them into clinical workflows. Also, the patients recruited in the pilot included a high proportion of Medicaid patients whose use of smartphones is generally less sophisticated and required a lot of initial assistance in downloading the application.

Additionally, reimbursement for the CoCM is new[4] and needs careful assessment to make the model viable, including a robust caseload and workflow efficiencies. The smartphone application can help with such reimbursement issues by achieving efficiencies and better documentation of activities while improving clinical outcomes.

KEY LEARNINGS

- **Start small** – Before widespread implementation, test the program and identify workflow changes to allow for practice transformation. Use the lessons learned to adjust and expand.
- **Include sufficient on-site training** – If providers and patients don't feel comfortable using the technology, it will not be incorporated in treatment.
- **Incorporate feedback into timely customizations** – Valera Health's flexibility and technical expertise enabled rapid improvements to the patient enrollment and consent process that improved patient buy-in. Ease of use also was improved by streamlining the app's interface based on patient feedback.
- **Allow flexibilities** – Integration occurs at multiple steps and in different phases. Practices need to ascertain a care baseline and subsequently identify what resources may help to better integrate care from a programmatic perspective. The smartphone app can be a starting point by helping with patient screening and self-management.

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[1]Advancing Integrated Mental Health Solutions (AIMS) Center. "Evidence Base." https://aims.uw.edu/collaborative-care/evidence-base

[2]Bower, P., et al., Collaborative care for depression in primary care. Making sense of a complex intervention: systematic review and meta-regression. Br J Psychiatry, 2006. 189: p.484-93

[3]Archer, J., et al., Collaborative care for depression and anxiety problems. Cochrane Database Syst Rev, 2012. 10: p. CD006525.

[4]New Medicare Fee for Service Codes for the Collaborative Care model are available. Currently G0502,0503 and 0504 to become CPT 99492,99493 and 99494 as of January 1, 2018.

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