Esign Inc.
The Birth of a New Standard

Dr. Mohammed Shaikh,
CO-Founder and President

Addressing the Challenges in Behavioral Health Practice with Technology

By Wes Williams, VP & CIO, Mental Health Center of Denver

Technology is not my organization's business. Helping people improve their mental health and helping our clinicians reach more people using more effective mental health interventions–that is our business. It may seem obvious, but it is easy to get caught up in technology for its own sake. Our staff is only interested in technology when it makes for better and more efficient delivery of mental health care and better support for our clinicians. So, the mission of our Information Systems department is to find or create the information tools that staff can quickly learn to use.

Part of my reasoning is that I already took that leap for them. I was a licensed clinical psychologist seeing clients for a Boulder, Colorado community mental health center; psychology is my training and was my first love as a professional. More than 10 years ago, when that community mental health organization decided it was time to move beyond paper and start using an electronic health record, I saw an opportunity to help out and make a difference bigger than what I could do with my own individual caseload. I started marking up our traditional paper charts and forms with red pen and diagrams, asking the developers if they could create a checkbox for this or that in the EHR version. I soon realized I could do some of the programming and configuration myself. Before long, I was directing all the technology efforts and no longer practicing psychology. Other than CS 101 in college, I have never had programming training. I am thankful to have had very good mentors along the way.

Advising Change from the Inside

Coming at the technical work as a licensed psychologist has helped in specific ways. I have a more intuitive understanding of the workflow of the clinician. It helps with credibility in talking with our staff; they trust that I have an understanding of their work and its complexities. That is important because we typically have to compromise between compliance needs, quality needs, and provider workflow. Our clinicians can feel that they are heard and understood, and we share a common language. I know the business.

Wes Williams

A Brand New Internal System

One of the challenges in behavioral health is that the organizations tend to be smaller than the increasingly massive physical health provider systems, yet we still have to follow all the same rules. An electronic health record is a medical record, as well as scheduling, insurance verification, billing and accounts receivable, all in one piece of software, and it is tricky to configure that and get it right. We had been on our previous system for 12 years and had really outgrown it. We spent nine months preparing for our go-live with the new EHR and will not really consider the implementation over until the first fiscal year is closed, 14 months after go-live.

As the EHR comprises many elements, we took an agile approach to implementation and released a minimum viable product. We have committed to releasing regular monthly enhancements ever since to fine tune the system. At some level, we will never be done. We try to keep tailoring things to make it a little bit easier for people to do their jobs.

Pushing Behavioral Health towards the Mobile Revolution

Mobile is going to be important to us going forward, yet it will not happen until a HIPAA-compliant voice recognition is integrated into an EHR's mobile platform. We have a lot of community-based care managers, who work beyond our four walls. Ideally, the mobile phone would be a good format for some of those folks, but our medical record uses so much narrative. For now, they would rather use a full-blown keyboard for writing notes back at their office. We continue to look for the right workflow for them to be mobile-friendly.

The Fast-Arriving Future of Health Care

An important part of my job is to keep a vision of the future; there is certainly enough work to be focusing just on the "now," and if we do not look forward, we will never do anything innovative or different.

There is an exciting field called Pharmacogenetics, which uses a quick cheek swab to test how a client will metabolize psychotropic drugs depending on their genetic makeup. It can save a lot of time in finding a tolerant medication, and save a lot of client pain, trouble and expense in worse-than-

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normal side effects. We now have test results on more than a thousand of our clients and being able to present that information to the physician at the point when they are making a medication decision will be powerful. The key is to keeping it flexible enough so ultimately it is the physician making the decision, and not the computer. So, that is an ambitious and future-thinking project.

We also want to take advantage of natural language processing (NLP) power to be able to mine the clinical record for important pieces of information. There are clients with years of health records, with thousands and thousands of words of narrative about their conditions, behavior, and feelings over time. If a client is having an emergency, there could be some important information that could be helpful. However, in the heat of the emergency, the client may not be able to provide details. By leveraging NLP and being able to search through the entire client record, relevant information should surface. Without NLP, we might have had access at some level to that information, but it was buried in a cumbersome electronic record equivalent to a huge paper chart. Search is critical to having easy access to past, relevant data that will help our staff take the best course of action with a client. CR