

INVESTING IN ENTREPRENEURS WHO IMPROVE HEALTHCARE

Investment Area of Interest:

Mental Healthcare Provider Tools

October 2020

Introduction

In June 2020, a CDC survey found that over 40% of adults in the United States were struggling with mental health or substance use issues. Clearly, the COVID-19 pandemic took a considerable toll on the mental health of the US.

Exacerbating this situation was the national shortage of mental healthcare providers, which existed long before the pandemic began. Even though more than 57.8 million Americans cope with a mental illness or substance abuse disorder¹, as a country, we have not produced nearly enough mental healthcare professionals to treat our citizens. SAMHSA predicts by 2025 the U.S. will have shortage of over 230,000 therapists, psychiatrists, counselors, psychologists, and social workers.

And these figures don't take into account any shocks to the system. The opioid epidemic and the COVID-19 pandemic caused massive surges in mental healthcare demand. Another unforeseen event would create an even larger gap between the supply and demand of mental healthcare in the country.

This shortage of mental healthcare professionals coupled with the general unaffordability and inaccessibility to mental healthcare spurred a frenzy of innovation in mental healthcare over the last five years. In 2020 alone, over 170+ startups focused on mental, behavioral, or brain (referred to as "mental" collectively) health raised over \$1.7 billion, far surpassing funding volume in any other year, according to GIMBHI.

Mental health startups developed products and services in areas including telehealth, digital therapeutics, mental wellness, medical devices, diagnostics, and enterprise software. However, the majority of the innovation in the space recently has targeted patients and those who struggle with mental, behavioral, or brain health issues. For example, a startup like Headspace offers a meditation app for those who suffer stress. Or a startup like Pear Therapeutics develops a prescription digital therapeutic for people with opioid use disorder. While the business models of these mental health startups continue to morph, the product or service ultimately helps the patient from a mental health and/or quality of life perspective.



However, these startups have also innovated to create solutions targeted at mental healthcare providers, as well. With elevated levels of demand and a shortage of supply expected to increase, these mental healthcare provider tools will be increasingly relevant. These tools fall into two general categories: 1) healthcare IT 2) software-based patient-related provider tools. For the purposes of this report, we will exclude telehealth from our definition of mental healthcare provider tools.

Challenges for Mental Healthcare Providers

For mental healthcare providers, some crucial challenges include issues relating to electronic health record systems, the supply-demand imbalance in mental health, and diagnosis.

EHR Platforms

Surveys show that adoption of interoperable EHR systems by mental & behavioral health providers lags adoption in the healthcare industry at large. According to a survey published on HealthIT.gov done in 2016, only 30% of behavioral health providers have implemented EHRs, compared to 74% of US physicians and 97% of US hospitals. However, this is not due to mental health providers being technology laggards – there are real challenges to EHR adoption.

While the mental health providers range from counselors to psychologists to psychiatry, for the purposes of elucidating the challenges faced by mental healthcare providers, we will focus on psychiatrists. To begin, there are less choices of health IT and EHR products geared towards psychiatrists. EHR and health IT for psychiatrists, in general, must be capable of dealing with detailed behavioral health information and the whole range of associated clinical terminologies. To be effective, an EHR needs to be developed specifically for the practice of psychiatry. To complicate matters, a lot of psychiatry-specific EHR platforms do not integrate well with other healthcare systems and facilities. This results in a loss of efficiency, revenue, and ultimately worse patient care.

EHR platforms need to ensure patient confidentiality, which often necessitates the separation of clinical records and patient billing systems, presenting another complexity. In addition, there



are workflow challenges regarding documentation and therapy notes that are unique to psychiatry.

Supply-Demand Imbalance in Mental Healthcare

As mentioned earlier in the report, there is a severe shortage of mental healthcare professionals. By mental healthcare professionals, we include marriage and family therapists, psychiatrists, mental health counselors, social workers, psychologists, and school counselors. Right now, there are over 760,000 professionals in the United States. Due to the dwindling supply and growing demand, SAMHSA predicts by 2025 the U.S. will have shortage of over 230,000 therapists, psychiatrists, counselors, psychologists, and social workers². Driving this shortage is certainly the increasing demand for mental healthcare. But there are suppy-side drivers as well. Almost 60% of all psychiatrists are over the age of 55, which means that the shortage will intensify as these psychiatrists retire. In addition, physicians are reluctant become psychiatrists due to lower starting salaries compared to other specialties, the lower rates of reimbursement, and onerous reporting and documentation requirements.

This shortage has created challenges for psychiatrists in the U.S. Due to the shortage, many psychiatrists are overbooked and operate on grueling schedules. This leads to shortened appointment times and reduces the possibility of more in-depth care like time-consuming assessments or collaboration with primary care physicians. Any inefficiencies and time spent on technology exacerbates the time shortage for psychiatrists created by the supply-demand imbalance.

Diagnosis

Traditionally, the Diagnostic and Statistical Manual-5 is used for the diagnosis of mental disorders. Diagnoses are typically based on symptom measures from psychometric assessments. However, these measures have significant limitations such as "such as interrater reliability, cultural and linguistic discrimination, and subjectivity in interpretations and usage of such questions.³"



Medicine has made large strides over the last quarter century in the reduction of mortality and morbidity associated with stroke, heart disease, pediatric cancer, and AIDS. Unfortunately, we have not made as much progress on the mental illness front. For example, the suicide rate is not much lower than three decades ago. Part of the reason there has not been as much progress is due to diagnosis. The DSM diagnoses based on observable symptoms. Therefore, detection is typically late and prevention methods are not fully understood. Our current system of diagnosis, measurement, testing, and monitoring of mental illness presents a challenge to mental healthcare providers, especially as we move to a more value-based, outcomes-driven healthcare system.

Types of Mental Health Provider Tools

The two general categories of mental health provider tools we cover in this report are 1) healthcare IT and 2) patient-related provider tools.

Healthcare IT includes products that can help in the operational efficiency of mental healthcare providers, empowering interoperability between providers and others organizations.

For example, Valant is a Seattle-based provider of electronic health record software. Valant addresses the challenges with non-specialized EHR software, which has contributed to the slow adoption of EHR platforms and health IT by mental health providers in general. Valant is designed with the specific nuances and workflows of mental and behavioral health in mind.

Azzly is another EHR platform targeted at mental healthcare providers, but Azzly specializes in offering a EHR and a revenue cycle management system for specifically addiction treatment and behavioral healthcare providers.

Solutions such as Valant and Azzly make it easy for mental healthcare providers to integrate technology into their practices. This increases efficiency and ultimately revenue of mental healthcare providers, with the added benefit of providing better care to patients.

Darien, CT-based Mindyra is another startup that would fall into the healthcare IT. Mindyra's software increases the operational efficiency of mental healthcare provider by streamlining



patient onboarding and evaluation. While the software does not provide anything truly related to the care of patients, it allows for easy gathering of client information, organizing symptoms for clinicians, and tracking treatment progress.

The other category of tools are patient-related provider tools. These include tools that help providers serve new patients, tools that assist with the measurement, testing, and/or diagnosis of mental illness, and tools that help clinicians make decisions. This category has certainly seen more funding activity over the last few years.

Axialhealthcare provides clinician decision support tools that integrate into providers' existing workflow specifically geared towards substance abuse. Their solutions for providers also offers patient intelligence through a clinical support team that alerts providers about patient risks. As mentioned before, mental healthcare providers, especially that specialize in treating addiction, are overburdened due to opioid epidemic and increases in substance abuse during the COVID-19 pandemic. Provider tools these offer support through tools that ensure better clinical decision making. In addition, these solutions address the necessity of early detection and intervention in substance use disorder.

Owl Insights is a platform to help providers screen, track progress, and monitor treatment efficacy for mental healthcare providers. The platform integrates into clinical workflows and electronic medical records systems. The platform provides value to providers by offering assistance with data-driven clinician decision making in real-time, optimizing reimbursement revenue, and facilitates clinical documentation improvement for streamlined payer approval.

Eleos Health is a startup providing a solution that addresses many various mental healthcare clinicians' challenges. Eleos' solution provides clinician with real-time time information to assist with clinicians' decision making. The solution auto-generate progress notes and can be used in an in-person or telehealth care setting. The solution cuts administrative time, reduces clinician burnout, and ultimately helps providers achieve better outcomes.

But startups in the patient-related provider tools category offer other services beyond clinician decision support. In 2013, in a movement to depart partially from full reliance from traditional psychometric measures which are limited, Thomas Insel, the former director of the NIMH, launched the Research Domain Criteria project (RDOC). The goal of the project was to



transform diagnosis by incorporating genetics, imaging, cognitive science, and other levels of information to lay the foundation for a new classification system. The push was part of an effort to make diagnoses based on objective criteria, as seen in most other areas of medicine. In line with this initiative, we have seen startups develop more objective solutions for the diagnosis of mental illness.

Ellipsis Health developed a speech-based vital sign for Depression and Anxiety, which offers a way scalable and accurate way to measure anxiety and depression, in a way that integrates into care providers' workflows.

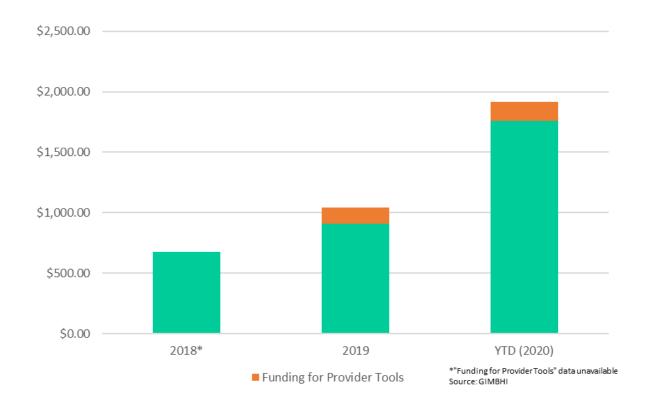
Technology provides better connectivity and communication. For example, businesses providing data analytics, patient data and data aggregation solutions are gaining investor attention for their ability to better assimilate, aggregate, track and share patient data among a patient's broader care team. This connectivity offers unprecedented insight into the patients' full treatment and allows streamlined and efficient collaboration between providers. This collaboration also allows providers to proactively engage with patients at an earlier stage, such as at the primary care level, to improve outcomes and reduce the downstream cost of higher acuity care associated with a reactive later-stage approach to patient engagement. Lastly, technology allows for providers to work with patients they otherwise would not be able to help caused geographical and staffing constraints.

Funding & Investment Outlook

Over the past few years, founders have developed innovative ways of addressing the many challenges in the mental, behavioral, and brain healthcare ecosystem, and subsequently venture capital funding for these startups have skyrocketed, especially in 2020.

According to GIMBHI, between January and October 2020, 160+ mental, behavioral, and brain health startups raised over \$1.7 billion worldwide. Over 2019 and 2020, a total of \$2.6 billion was raised. These startups include telehealth solutions, digital therapeutics, patient tools, mental wellness startups, medical devices, and provider tools.





Over 80 mental healthcare provider tools startups attracted just over 11% of total mental health funding over 2019 and 2020, or approximately \$294 million in funding. While most of the funding in this industry is allocated to startups developing telehealth solutions and solutions directed at patients, interest in the provider tools segment is growing due to the challenges that providers face.

Due to the overburdening of providers stemming from the increasing demand of mental healthcare, freeing up capacity is crucial for clinicians. Many older EHR systems required physicians to spend inordinate amounts of time updating data. This issue was magnified for behavioral healthcare clinicians, due to the unique specialty-specific data of psychiatry. These tools can eliminate the burden of data input for providers, representing an attractive value proposition for clinicians. Diagnostic tools and clinician decision support solutions ultimately allow clinicians to spend time higher value activities, resulting in higher efficiency, more revenue, and improved health outcomes. Furthermore, as advancements in artificial intelligence continue, we are likely to see more opportunities in the diagnostic tools segment.



Outlook

In the last year, funding for mental health startups has boomed but mainly for tools, solutions, and platforms aimed at telehealth and patients. FCA Venture Partners would like to make an investment within the mental health provider tools space. With a shortage of mental health providers and the increasing prevalence of mental health disorders, providers will be increasingly reliant on tools to help manage practices and clinics and help with care delivery, which will necessitate innovation consequently creating a significant investment opportunity.

Based on market sources and estimates from a handful of mental health provider tools startups, startups are aiming to charge roughly ~\$10 of revenue per session. Assuming 760,000 clinicians, and an average of 1,200 sessions a year per clinician, the total serviceable available market is roughly \$9.1 billion and growing rapidly.



Select Startups



holmusk



Holmusk is a Singapore-based data science and health technology company that aims to reverse chronic disease and behavioral health issues.



Holmusk offers a specialty HER system and data analytics to inform personalized care.



Holmusk raised a \$21.5 Series A round led by Health Catalyst Capital and Optum Ventures in May 2020. The company's total funding volume is \$31.3M.



Singapore, Central Region, Singapore www.holmusk.com





Owl Insights is a SaaS platform which enables measurement based care in the treatment of behavioral health disorders.



Owl's solution enables healthcare providers to easily screen patients for behavioral health status, track progress, and monitor treatment efficacy.



Owl Insights raised \$15M of venture round led by Ascension Ventures and The Blue Venture Fund in September 2020. The company's total funding volume is \$16.4M (Crunchbase).



Seattle, WA www.owlinsights.com







Linus Health is a medical company that concentrates on brain and mental health by using digital technology.



Linus provides clinicians with objective brain health data by means of remote patient monitoring.



Linus Health raised 9.9M from its Venture Round in October 2020.



Greater Boston Area, MA www.linus.health





Connecting prescribers, treatment providers and the recovery community with a platform that delivers solutions from risk to recovery.



AxialHealthcare provides intervention tools that integrate into providers' existing workflow, helping providers make clinical decisions.



axialHealthcare raised \$15M of Series C funding led by Oak HC/FT in February 2020. The company's total funding volume is \$41.3M



Nashville, TN, United States www.axialhealthcare.com







Darmiyan is developing an Al-powered software platform for early detection, monitoring, and stratification of Alzheimer's disease



Darmiyan providers detect and monitor neurodegenerative disorders through its diagnostic software platform.



Darmiyan's latest funding was \$6.4M from a Seed Round in April 2020. The company total funding volume is \$11.1M (Crunchbase).



San Francisco, CA, United States www.darmiyan.com





Ellipsis Health is an early stage start-up developing affective computing for existing patient/care team interactions to create a real-time, behavioral health vital sign for each patient.



Ellipsis offers a real-time way to measure anxiety and depression that fit into providers' care delivery workflows.



Ellipsis Health raised \$6M in a Seed Round October 2019. In total, the compay has raised \$10M.



San Francisco, CA www.ellipsishealth.com







Osmind builds software for mental health providers, patients, and researchers and generates insights to advance the development of new therapies, diagnostics, and care management programs.



Osmind's cloud-based electronic health record is designed for mental health providers, especially those who treat refractory mental health conditions. The EHR includes integrated patient engagement tools and modules that automate provider workflows and enable insight generation.



Osmind raised \$2M from a Seed Round led by General Catalyst in October 2020. The company total funding volume is \$2.2M (Crunchbase).



Mountain View, CA www.osmind.org





Manatee empowers providers and families raising children with behavioral or developmental disorders by democratizing mental health care and streamlining communication.



Manatee offers a platform for clinicians to send treatment goals to families, track progress, and get patient insights.



Manatee raised \$1.5M from a Seed Round in July 2020. The company total funding volume is \$1.7M (Crunchbase)



Denver, CO www.getmanatee.com







RightEye leverages proven scientific research and a patented cloud-based software platform to deliver any eye movement test or therapy.



RightEye provides a brain health solution to support doctors improve brain/vision health for patients.



RightEye raised \$1M from Debt Financing in March 2020. The company total funding volume is \$13.4M (Crunchbase).



Bethesda, MD http://www.righteye.com/





AZZLY is the AllinOne EHR & Client Management Software for the Behavioral Health: Substance Use & Eating Disorders Treatment Centers.



AZZLY's HER and revenue cycle management software helps providers optimize outreach, intake, admissions, medication management, and billing.



AZZLY raised \$400K from Debt Financing in August 2020. The company total funding volume is \$400K (Crunchbase).



Orlando, FL www.azzly.com







Valant is a SaaS organization serving the needs of the behavioral healthcare industry.

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Valant provides both therapist practice management software and psychiatric practice management software.

\$

Valant's latest funding was from a Private Equity Round led by Gemspring Capital in April 2019. The company total funding volume is \$26.3M. (Crunchbase)



Seattle, WA www.valant.com





Eleos Health is a mental health startup focused on using voice analysis and NLP to improve treatment outcomes and workflow efficiency.

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Eleos Health's Care Intelligence System uses therapy-specific voice analysis to cut administrative time, generate new revenue, and achieve better outcomes without changing existing workflows.

\$

Eleos Health's latest funding was raised on February 2020 from a Seed round led by lool Ventures.



Boston, MA www.eleos.health



blueprint



Blueprint helps mental health providers deliver more effective treatment and make more money through digital measurement-based care.



Specifically, Blueprint offers automated assessments, patient-specific insights, and software to help with reimbursement collection.



Blueprint raised \$3.4M from a Venture Round in September 2020. The company total funding volume is \$4.7M. (Crunchbase)



Chicago, IL www.blueprint-health.com





Founded in 1996, FCA Venture Partners has a long history of investing in successful healthcare entrepreneurs. We are passionate about building sustainable businesses and providing strategic value to our portfolio companies.

FCA invests \$3-6M in fast growing healthcare companies making processes in the industry faster, better, and cheaper while improving the quality of care and the patient experience.

With its location in Nashville, roots with Clayton Associates and the McWhorter Family, and deep involvement in the growth of the U.S. healthcare community, FCA Venture Partners is poised to take advantage of disruptive opportunities that help move healthcare forward.

Investing in Entrepreneurs who Improve Healthcare

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Sources



¹ https://my-ibisworld-com.proxy.lib.duke.edu/download/us/en/industry/1568/4/0/pdf

² https://www.goodtherapy.org/for-professionals/personal-development/become-a-therapist/is-there-shortage-of-mental-health-professionals-in-america

³ https://www.nature.com/articles/s41746-017-0006-0