Spotlight on



Clara Guo, Lucid.Care Labs, CEO

clara@lucid.care www.linkedin.com/in/clarazguo/ We sat down with Clara Guo, MD MBA, an alumna of Clarion/Lumanity who is the co-founder and CEO of Lucid. Care Labs, a company looking to utilize digital and AI approaches to drive innovation in psychiatry to improve the lives of patients, to talk about the evolving digital and AI landscape and impact specifically in the psychiatry space.

Clara Guo, MD MBA is a psychiatry resident at Yale and co-founder of <u>Lucid.Care Labs</u>. At Dartmouth College, she majored in neuroscience, researched human decision making, and was the Co-Captain of Dartmouth's Figure Skating Club. After graduation, Clara worked at Clarion (now Lumanity), a life sciences consultancy, where she specialized in behavioral health and digital health. She saw how innovation so often lacks clinician and patient voices.

Clara went on to pursue a joint MD/MBA at Yale. She conducted and published research in opioid use disorder and led the Healthcare and Life Sciences Club and Digital Health Group in business school. While at Yale, Clara co-founded Lucid. Care, driven by her own personal experiences and losses. Lucid improves the quality of psychiatric care by making clinical use of our day-to-day data. She looks forward to continuing to dedicate her life to the mental health field.



Q&A

Association's pitch competition! Digital technology and AI are currently hot topics in medicine, and they build on a substantial body of prior work. What are key advancements in the past 5-10 years we should be aware of?

The field of digital health has been through many waves of innovation over the past decade. I'll focus on mental health, since that's my expertise. Unsurprisingly, innovation in mental health care has largely focused on care access to close the gap between those who need treatment and those who receive it. In 2023, 59M American adults had Any Mental Illness (AMI); of those, 54% received treatment (per the National Survey on Drug Use and Health). Interestingly, the other 28M adults that were treated for mental health did not meet criteria for AMI. There are several ways to interpret this trend, but one thing is clear: more people are seeking mental health treatment, even without a formal diagnosis of mental illness. This underscores the urgent need for more and better treatment options.

When I started my strategy consulting journey in 2017, much of our work focused on digital therapeutics (DTx), which are generally classified as "Software as a Medical Device" and intended to treat a disorder (DTA). Unlike other digital health companies out there, DTx usually require FDA clearance, with a high evidence burden for demonstrating both safety and efficacy. In the field of behavioral health, DTx rose quickly, with many believing that provision of treatment without requiring a healthcare provider (HCP) would help close the access gap.



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However, the hype fell quickly, with Pear Therapeutics' first FDA-cleared digital therapeutic in 2017 for substance use disorder leading to a bankruptcy in 2023 (MobiHealth). Akili, while solvent, has shifted from the prescription market to over-the-counter with a video game treatment for ADHD (Fierce Biotech). Most recently, Click Therapeutics and Otsuka announced clearance for Rejoyn, an adjunct treatment for major depressive disorder (Otsuka), and Curio announced clearance for MamaLift Plus for postpartum depression (BioSpace). It seems like Otsuka is prioritizing access over profit as it builds toward precision psychiatry, pricing Rejoyn at \$50 for a 6-week course before achieving payer coverage (STAT). I am excited to watch this second wave of DTx closely.

Another parallel wave of digital health has focused largely on providing care. Many digital mental health companies that began in the 2010s, such as Spring Health and Mindstrong, began as point-of-care solutions, leveraging technology to bring objectivity to the subjective field of psychiatry. However, the successful companies quickly pivoted to care provision, leveraging teletherapy and technology to bridge the access gap and improve the care experience. Early companies successfully captured the employer space (e.g., Spring Health and Ginger.io - now acquired by Headspace).

Where do you see the digital health space moving and what are the key drivers of this evolving market?

The Covid-19 pandemic drastically changed the landscape of teletherapy. Interestingly, per the National Survey on Drug Use and Health, telehealth saw only a 0.8% increase in the number of American adults utilizing their services in 2023 vs. 2022, remaining relatively stable at 31M. The largest increases in treatment types were for prescription medications (7.9% increase to 41.9M adults) and the outpatient setting (36.4M adults), with a 6.2% increase in the number of American adults seeking treatment in the "office of a therapist, psychologist, psychiatrist, or mental health professional" (24.5M) (SAMHSA).

There continues to be a wave of innovation and startups providing telepsychiatry, leveraging existing insurance payment schemas or operating fully out-of-pocket. These startups tend to focus on a specific disorder, such as PTSD, ADHD, autism, and pediatric mental health, or carve out a niche in the psychedelic or functional space. Scaling these companies can prove difficult, as there is still a nationwide clinician shortage. Each state has its own laws, including for Advanced Practice Providers' scope of practice and training requirements. Some have voiced concerns about the increasing fragmentation of care, especially for complex patients, and the imposition of patient quotas on clinician wellbeing. However, there is no doubt that we will continue to need a solution for the access gap.

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In psychiatry as a field, there is significant movement around interventional psychiatry, psychedelics and ketamine, metabolic psychiatry, and more, which provide hope for change. In this landscape, technological innovation and adoption have become less taboo to discuss. In fact, at the American Psychiatric Association's Annual Meeting in 2024, there were panels on the responsible use of ChatGPT, generative Al and Al scribes, Al therapists and coaches, and more. There have also been multiple discussions and articles around the use of Al to improve administrative functions, reduce burnout, and streamline operations (NEJM). We are still in the infancy of using technology and machine learning to inform "gold standard" protocols for treatment and shape care decisions.

What makes psychiatry a particularly interesting area in which to deploy digital and AI tools and what progress (and challenges) have we seen as people have looked to deploy these tools in this space?

Psychiatry is this unique field that blends art and science. It's why I chose it. A good clinician will read between the lines, will understand which questions to ask and when, will know when to stay silent and when to jump in. It's a dance between the clinician and patient. It is one of the most intimate fields of medicine, and, I would argue, one of the most elusive fields as well.

We don't understand psychiatric disorders. Our classifications of disorders are blurry, and our understanding of the underlying neurobiology is poor. There is no hard line between "normal" and "not normal," and this doesn't even consider the impact of one's culture on one's thoughts

Lucid.Care Labs, CEO



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or behaviors. This means that our protocols in psychiatry are not a 1-to-1 match between diagnosis and treatment. "We take bad data and apply bad algorithms," to quote a Deputy Chair of Psychiatry. Medications don't work. Innovation is slow. New medications often fail in discovery and even given advances, 20-60% of patients are treatment resistant (Nature).

Psychiatry is the perfect field in which to innovate because, quite simply, it needs innovating. For too many patients, current psychiatric care falls short. However, it is crucial that it succeeds, as mental wellness is fundamental to both individual health and collective wellbeing. This is especially important in the context of the loneliness epidemic and the aftermath of the COVID-19 pandemic.

♦ What is Lucid.Care and what is the vision?

Lucid.Care was founded on one foundational belief – the quality of mental health care must improve and that we can pave the way for high-quality precision psychiatry by harnessing our day-to-day data for clinical care.

I am sure we can all think of someone for whom mental health treatment has failed. I know I can think of several. As many psychiatrists say, "bad treatment is often worse than no treatment."

Why is treatment so bad? Psychiatric care is episodic and conversational. My own medical school thesis found that 85% of patients in mental health treatment struggle to communicate with their clinician, and this does not even consider cultural and cognitive biases that affect what is communicated and how. This means that clinicians often do not have the data they need to make treatment decisions. Because of this "Data Gap" between patients and clinicians, treatment is often guesswork - educated guesswork, but guesswork, nonetheless.

Lucid combats that guesswork. We provide a patient-facing mobile app and a clinician-facing report that speak to each other via a HIPAA-compliant platform. We are building a multimodal database tailored to mental health, combining not just self-report but also an extensive array of passive data.

Imagine if we could understand how a person's day-to-day behavior – as recorded from wearables, continuous glucose monitors, and phones – shapes and is shaped by someone's mental health, physical health, and substance use. Imagine if we could then use those insights to build a more perfect treatment plan.

Before we get there, we start by quantifying key symptoms and behaviors that clinicians need to make better-educated decisions, like alcohol use. From this dataset, we use machine learning to surface predictions that reduce the need for frequent patient self-report. By equipping psychiatrists and nurse practitioners with relevant data, we help ease the burden of information gathering. Most importantly, we enhance the "art of psychiatry" and let clinicians do what they do best: deliver high-quality care and build a stronger therapeutic alliance.

With time, we hope to build a new "mental health lab work" that leverages advances in machine learning to understand a patient's recovery. To quote a National Director psychiatrist, "No one has developed a clinical tool that's useful for psychiatry" - yet.

Perhaps most importantly, we help patients get the treatment they deserve, faster. As humans, we crave agency – which is so often lacking in mental illness. We want to understand ourselves better, especially if we've already taken steps to seek professional help. As communities that have historically been minoritized, we want treatment that is fair and unbiased. Lucid empowers patients with nuanced data on how they've been doing. This "common language" with clinicians provides a level of objectivity that informs clinical decisions. We hope that this objectivity combats the clinician-level biases, cultural differences, and, sometimes, the blatant racism.

We are excited to push our understanding of mental health and mental illness with Lucid and to build tools that are applicable in not just psychiatry, but all of medicine and research and development. We hope to create a world in which every patient gets the right treatment, from day one, and is the leader in their own recovery journey.

How has the journey been so far and what is on the horizon?

The journey, like any entrepreneurial journey, has had its ups and downs – and it's intoxicating. I am so thankful to have a co-founder and a team that I can count on. We are, of course, also thankful for our investors – Pear VC (as winners of their Yale Startup Competition), Forum Ventures, Yale, and friends and family, including from a Clarion alum!

We've had some notable wins that I'm especially proud of. We won a challenge sponsored by the National Institute of Drug Abuse (NIDA) and completed six months of mentorship, which pushed us to ensure the scientific validity of what we're building. Additionally, we won the American Psychiatric Association's (APA's) pitch competition – it was amazing to stand up in front of a crowd of psychiatrists and share what we're building with our customers and experts. We've also launched a mobile app, tested it with dozens of users, and secured our first Letters of Intent and Design Partners with private practice clinicians.

Next month, we are excited to launch version 2.0 of our product and trial it with several private practices. I can't wait to put our product in the hands of patients and clinicians to gather realworld feedback, which will help us become an even stronger and more valid clinical tool. As with any early-stage startup, we will also be preparing for fundraising efforts.



→ Why choose us?

Lumanity can be counted on for service and quality. We utilize proven processes supported by technologically advanced resources to produce high-quality services, with guaranteed satisfaction.

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