News and Perspectives

From Innovation to Infrastructure: Why Digital Behavioral Health Still Struggles to Scale

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Key Takeaways

- San José State University's 2026 Health TechQuity conference highlighted a persistent theme in digital behavioral health: difficulty with scaling interventions, contributing to constrained and uneven access.
- The field must shift its focus from what works (developing effective tools) to what reaches people (developing effective systems and infrastructure that support equity).

Across 2 days of panels and conversations at San José State University's Health TechQuity conference [1], a recurring theme emerged: despite decades of innovation in digital health, access to behavioral health care remains constrained, uneven, and difficult to expand at the population level.

This tension is striking because, by many measures, the field has made significant progress. Digital behavioral health has produced a growing number of validated tools, including self-guided interventions, digital therapeutics, and, more recently, artificial intelligence–enabled systems designed to support individuals outside traditional care settings. Many of these interventions have demonstrated efficacy in controlled environments, with multiple meta-analyses confirming their effectiveness across a range of conditions [2,3].

Yet, for most individuals, access to digital behavioral health tools depends on geography, provider availability, and system capacity. Waitlists remain long. Services are fragmented. And many of the populations that could benefit most from low-barrier, scalable interventions continue to face the greatest barriers to access.

Digital behavioral health's central challenge is no longer innovation; it is *implementation*.

The Persistent Challenge of Knowledge Translation

The gap between what is known to be effective and what is delivered in practice—commonly described as knowledge translation (KT) [4]—remains one of the most persistent challenges in health care. Despite sustained effort, moving evidence-based interventions from research settings into real-world use continues to prove difficult.

Digital behavioral health was uniquely positioned and expected to accelerate this process by enabling remote, scalable delivery. This anticipated transformation has not fully materialized. Instead, many interventions remain confined to research studies, pilot programs, or limited deployments [5]. Even when effective and engaging, tools often fail to reach the populations they were designed to serve or are not sustained beyond initial funding cycles.

This suggests that the KT challenge in digital behavioral health is not solely a matter of dissemination or user adoption but is fundamentally structural and systems-based [6].

From Tools to Access

A useful way to understand the current state of digital behavioral health is to consider these three distinct but interdependent layers:

- Innovation: the development of new tools and interventions
- Evidence: the validation of those tools through research
- Infrastructure: the systems required to deliver those tools at scale

The field has made substantial progress in the first two layers. There is no shortage of digital interventions, and a growing body of evidence supports their effectiveness. The third layer—infrastructure—requires further development.

Digital behavioral health interventions are not passive delivery mechanisms. Outcomes are shaped not only by the intervention itself but also by factors such as user engagement, interface design, and personalization. These elements can influence outcomes independently of hypothesized active ingredients, making interventions methodologically complex to evaluate and interpret [7,8]. As a result, even understanding what works requires careful attention to these dynamics.

However, even when these complexities are addressed, the central challenge remains: developing systems that enable effective interventions to be delivered at scale. Without systems capable of delivering validated interventions across populations, even the most effective tools remain limited in their impact.

Innovation creates tools. Infrastructure determines access.

Structural Misalignments

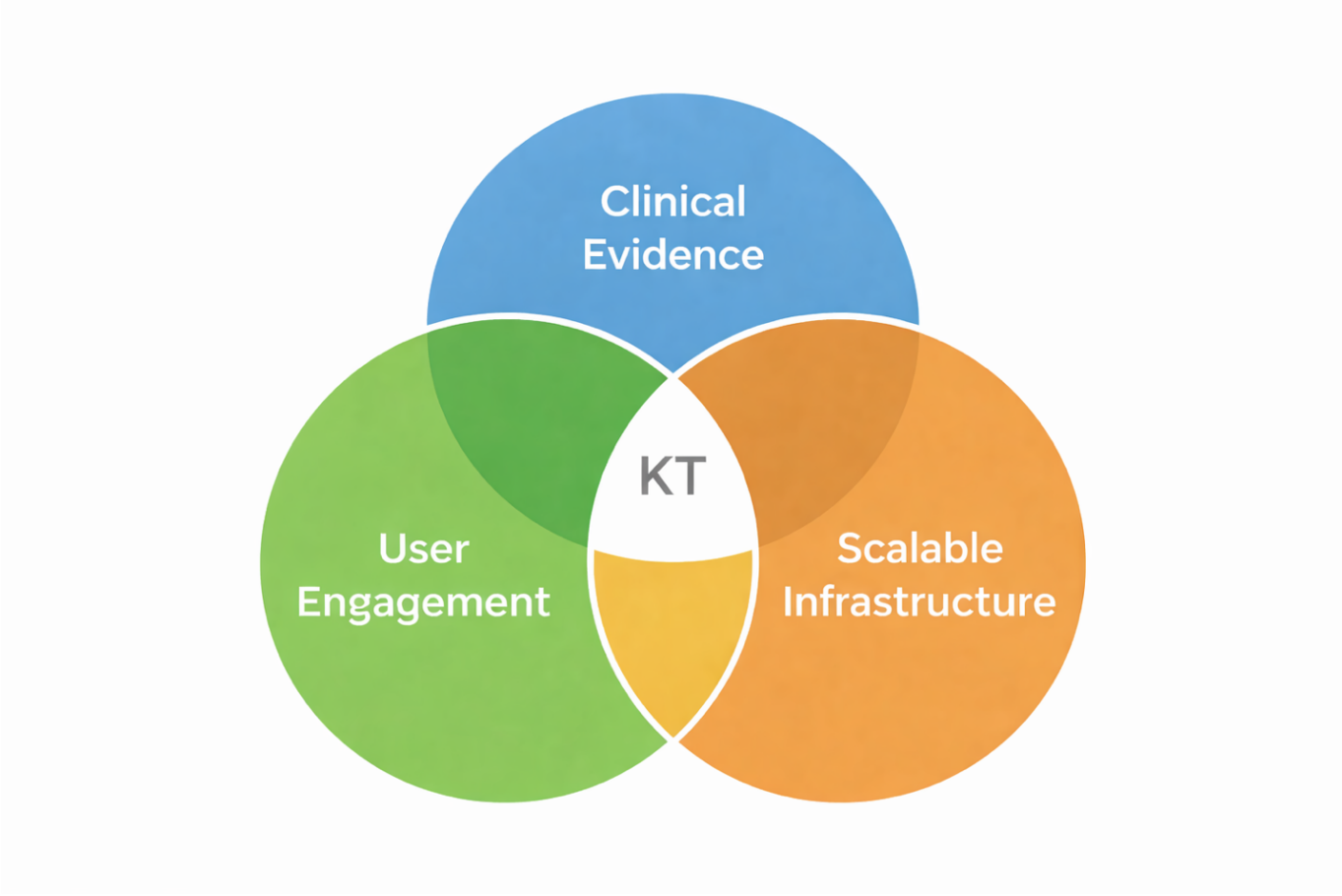
One reason infrastructure has struggled to emerge is that digital behavioral health sits at the intersection of technology,

health care, and funding, each of which operates according to very different logic.

Technology moves quickly and prioritizes rapid innovation. Health care systems are necessarily regulated and typically risk averse. Business and funding models, meanwhile, require return on investment or depend on time-limited grants. Each functions effectively on its own terms, but they are not naturally aligned. What is missing is sustained coordination across these areas and alignment of clinical evidence, user engagement, and infrastructure to achieve real-world impact and delivery at the population scale.

Most digital health efforts, however, tend to focus in isolation rather than in coordination. Some prioritize evidence without achieving meaningful uptake. Others optimize engagement but lack validation. Still others build infrastructure without integrating evidence-based or engaging interventions. The result is a fragmented landscape in which solutions appear promising in isolation but fail to produce sustained impact.

Meaningful population-level outcomes emerge only at the intersection of clinical evidence, user engagement, and scalable infrastructure, where interventions are not only effective but are also used and delivered at scale. This intersection represents the conditions under which KT becomes possible, and it remains underdeveloped in digital behavioral health.



Structural misalignment in digital behavioral health. KT: knowledge translation.

The Case of Self-Guided Behavioral Health

The implications of this gap are particularly visible in the context of self-guided behavioral health interventions, which are designed to be accessible without formal referral, usable without continuous clinician involvement, and scalable across large populations.

They are intended to complement clinical care, particularly in contexts where demand (the need for targeted behavioral support) exceeds supply (available practitioners).

At the Health TechQuity conference, panel discussions highlighted the potential for these tools to address another persistent challenge in behavioral health systems: the waitlist. If individuals can access validated, self-guided support while waiting for care—or in cases where they may not otherwise enter the system at all—then access becomes less dependent on clinician availability.

This potential is rarely realized at scale. Without infrastructure that enables discovery, onboarding, integration, and sustained engagement, self-guided interventions remain underutilized and largely function outside health systems.

From Tools to Systems That Support Equity

This moment in digital behavioral health may represent a transition. For much of the past decade, the focus has been on what works: developing and validating interventions.

The next phase must focus on what reaches people, which requires a shift from thinking about individual tools to thinking about systems they can be delivered in, as follows:

- Shifting from whether an intervention is effective to whether it is accessible
- Shifting from whether users engage in studies to whether they engage in real-world settings
- Shifting from whether outcomes are measured at the individual level to whether they translate into population-level effects

In other words, the problem of KT in digital behavioral health is inseparable from the problem of infrastructure and the question of equity.

When validated interventions exist but are not delivered at scale, access becomes uneven. Those with proximity to research institutions or well-resourced systems may benefit, while others do not.

Beyond being a technical challenge, infrastructure is a mechanism for equitable distribution. It determines whether digital behavioral health reaches the populations that need it most or remains concentrated among those already served and those who may already have access to in-person care.

Moving Forward

Digital behavioral health is no longer limited by a lack of innovation nor constrained by a lack of evidence. The central challenge is whether the field can build the infrastructure required to translate advances into real-world impact.

This will require alignment across technology, health care, and funding systems. It will require new models of dissemination, integration, and collaboration. The direction, however, is becoming clear. Digital health has repeatedly demonstrated that many interventions are effective. The remaining challenge is not efficacy but delivery at scale.

To improve access to behavioral health care at the population scale, the focus must shift from innovation to implementation, from tools to systems, and from knowledge to delivery.

Keywords: digital health; mental health services; telemedicine; health care accessibility; health equity; treatment outcome; diffusion of innovation; health knowledge; attitudes; practice; delivery of health care; health services needs and demand

Conflicts of Interest

The author is the founder and a scientific architect of the Evolution Health platform and consults on academic and commercial digital mental health initiatives. The views expressed in this article are those of the author.

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