**The retention challenge in remote therapy and learning: an assessment through the lens of online psychology and COVID-19**

What does the popularity of social media “unfriending”, “blocking” and “ghosting” communicate about the success potential for online psychological treatment and online education? This question has been brought to the fore by the COVID-19 pandemic and the resultant transition to remote delivery for much of clinical care and teaching.

Online psychotherapy and education platforms presented rapidly adaptable, convenient substitutes and have played an important role in helping stressed communities traverse the trauma. As we increasingly rely on these remote alternatives, however, it is crucial to anticipate and mitigate against a recurrent problem suggested by pre-pandemic scholarship: very poor retention.

Although this challenge has been borne out in studies of both online therapy1 and online education2, these fields have been mutually insular and have not benefited from each other’s experience in addressing this common foe. This issue has been recently highlighted in the specialized education literature3. Here, we explore it for a mental health audience, since, besides learners and educators, countless online patients and therapists also stand to gain from retention-enhancing design.

Telemental health services vary greatly, including by specific technology used, intervention type, degree of provider involvement, and target population and diagnosis. During the pandemic, video-mediated consultations have become particularly common. Up until that point, the best studied telemental health intervention had been digitally-enabled self-help, typically inspired by cognitive behavioral therapy and incorporating little or no therapist involvement. The poor retention associated with the latter has been widely documented, including in one early4 and one more recent5 landmark studies that showed disappointing completion rates of 0.5% and 18%, respectively.

The same limitation is borne out in studies of remote learning. When Massive Open Online Courses (MOOCs) first appeared nearly 10 years ago, they were heralded as the long awaited antidote to education disparities. Through low-cost courses delivered online by renowned educators to a worldwide audience, they promised to democratize high-quality education like never before and challenged the very premise of location-bound learning, regardless of topic or discipline. Universities would become obsolete, went the optimistic prediction6. This echoed the older promise that therapist-optional digitally-enabled self-help would dramatically increase access to care by correcting provider shortages, especially in underserved areas and communities.

The euphoria – 2012 was dubbed “the year of the MOOC”6 – was short-lived, in no small measure due to a stubborn retention problem that has been revealed in several studies. Among them, a landmark analysis of 565 MOOCs delivered by the Massachusetts Institute of Technology and Harvard University to 5.63 million learners showed completion rates that ranged from 3.13% to 5.91% across academic years7. Also disappointing was the finding that MOOC completers tended to be socio-economically advantaged, not the in-need learners at the margins of global education that MOOCs hoped to reach6. Already by 2013, the world was declared “MOOC’d out”6.

Retention, of course, is not the only metric by which to measure the success of online therapy and education; even if retention is poor, a massively popular intervention or course still means that many users can benefit3. Also, today’s pandemic-dictated platforms are typically much smaller, less impersonal, more interactive and better coached than the typical self-paced online therapy or MOOC of yore, suggesting that retention may be a less relevant problem with current offerings. Still, there is reason to be concerned about user engagement on today’s platforms, due to characteristics that seem inherent to broader online psychology.

Online, regardless of the specific activity, inattention and distractibility seem like perennial obstacles and ever present personality features. Already in 2008, a British Library investigation of scholars’ online reading behavior described it as “promiscuous”, “horizontal”, “volatile” and “squirrelling”8. Given today’s obsession with such analytics as “visitor conversion”, “page views”, “bounce rate” and “scroll depth”, it would be safe to assume that this problem has worsened as Internet-related technologies have grown more sophisticated and distractions have multiplied3.

A weak attachment to content has parallels in the weak bonds that characterize many online relationships, further suggesting a medium-wide commitment shortage present across online platforms and pursuits. In that sense, online information-seeking may not be fundamentally different from online befriending. From “blocking” to “unfollowing”, “unfriending” and “ghosting”, the abundance and popularity of online relationship-terminating functions and behaviors speak to this phenomenon.

Relatedly, attention-deficit/hyperactivity disorder is very commonly diagnosed in individuals with pathological Internet use, variably defined9. However, with the pace of online life, competition from countless sites, visual and auditory stimuli meant to drive traffic, and difficult-to-ignore “alerts” and “notifications”, one need not suffer from pathological Internet use to appreciate an Internet-inattention link that seems like an intrinsic characteristic of online psychology.

The difficulty sustaining attention online, the weakness of online bonds and the weak commitment to online content suggest an environment-wide retention challenge that would be crucial to address in two activities where focus and commitment are indispensable: psychotherapy and education. To that end, various mitigating factors that have been proposed3 in the mental health and education literature to enhance retention would seem very relevant in the COVID-19 era.

These include nurturing a medium-defying bond between patient/student and therapist/teacher; participative goal-setting that views users as collaborative partners; a hybrid or blended approach that integrates some in-person contact into remote delivery; underscoring the credentials of remote therapists/teachers so they may be taken more seriously by users; inclusive design elements that reflect the diversity of platform users; and “gamification”, which borrows from video game development to increase platform engagement.

Moving therapy and education out of their traditional, time-honored settings in response to the pandemic has allowed the continued provision of mental health care and saved the academic year. But our knowledge of Internet psychology, as well as data from studies into digital self-help platforms and MOOCs, suggest that online mental health treatment and teaching cannot yet be considered an interchangeable, quality-assured alternative to conventional practice. Well-documented challenges with retention highlight this as a real obstacle to be fully investigated and addressed before online therapy and education can be embraced as reliable long-term solutions.

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1. Van Ballegooijen W, Cuijpers P, van Straten A et al. PLoS One 2014;9:e100674.
2. Bawa P. Sage Open J 2016;6:1-11.
3. Aboujaoude E, Gega L, Saltarelli AJ. EDUCAUSE Review (in press).
4. Christensen H, Griffiths KM, Korten AE et al. J Med Internet Res 2004;6:e46.
5. Gilbody S, Littlewood E, Hewitt C et al. BMJ 2015;351:h5627.
6. Yang D. Are we MOOC’d out? Huffington Post, March 14, 2013.
7. Reich J, Ruiperez-Valiente JA. Science 2019;363:130-1.
8. Rowlands I, Nicholas D, Williams P et al. Aslib Proc 2008;60:290-310.
9. González-Bueso V, Santamaría J, Fernández D et al. Int J Environ Res Public Health 2018;15:668.