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Editorial

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The case for inclusive co-creation in digital health innovation

This piece critiques the exclusion of healthcare practitioners (HCPs) from the digital health innovation process. Drawing on "Sync fast and solve things—best practices for responsible digital health" by Landers et al., the editorial argues for the importance of inclusive co-creation, in which clinicians play an active role in developing digital health solutions. It emphasizes that without the meaningful involvement of HCPs, digital health tools risk being clinically irrelevant.

The motto "Move fast and break things" has long inspired the behavior of modern entrepreneurs, chararcterized by a race to put products in the hands of consumers as fast as possible, with minimal regard for their legal and ethical ramifications[1]. In their recent study, Landers et al. flip this paradigm on its head, highlighting the importance of a "Sync fast and solve things" mentality within digital health instead[2]. Realizing responsible digital health, they argue, requires embracing co-creation as the default modus operandi for digital health innovation[2]. The question of who should be included amongst these co-creators is the topic of this editorial.

Towards inclusive co-creation

Broadly, digital health refers to the use of information and communications technologies in medicine and other health professions to manage illness and promote wellness[3]. More specifically, it includes the use of wearable devices, mobile health, telehealth, health information technology, and telemedicine[3]. To propose best practices for responsible digital health innovation, Landers et al. collected and analyzed insights from 46 digital health stakeholders in Switzerland through the ECOUTER methodology, a participatory form of qualitative research[2]. This approach ultimately enabled them to identify three clusters of governance and innovation best practices in digital health, among which inclusive co-creation is particularly important.

Inclusive co-creation refers, according to the stakeholders surveyed in this study, to the collaboration of regulators, patients, and citizens throughout the digital health innovation process and ensures that ethical and societal issues in these innovations, such as lack of patient centricity, trust, and autonomy, are addressed[2]. It is notable that amongst the 46 stakeholders recruited to participate in this study, including CEOs, product managers, investors, and policy makers, there were zero healthcare practitioners (HCPs) and only two patients[2]. In fact, Landers et al. specifically categorize HCPs and patients as "Implementors & end-users" rather than as "Innovators."[2] It is no wonder, then, that HCPs are not mentioned in the above definition of inclusive co-creation, but nonetheless puzzling that their perspective would be omitted from a study designed to identify best practices for addressing issues intimately embedded in the physician-patient relationship. It is well-recognized that the development and management of digital health products requires a deep understanding of the healthcare system, patient needs, medical protocols, clinical workflow, and regulatory requirements—knowledge that HCPs (and patients and / or caretakers) uniquely possess. Landers et al., however, are not fully to blame for this omission—clinicians' voices have long been missing from the digital health landscape. Indeed, so too have the voices of patients and caretakers, though this particular piece will focus on the role of HCPs.

The breakneck pace of innovation within digital health, accelerated by the COVID-19 pandemic, has outpaced the inclusion of HCPs via the development of incentives, education, and regulations. As such, a fight-or-flight response has become common amongst clinicians, embodied in widespread reluctance to adopt digital health tools and defense of their traditional responsibilities[4]. If such tools lack both clinical relevance and buy-in from HCPs and patients, they are bound to fail. In fact, a recent cross-sectional observational analysis of 224 digital health companies in the U.S. found that 44% of them had a clinical robustness score of 0 (out of 10), highlighting a major gap in healthcare technology today[5].

Digital health is often positioned as a vehicle for technological transformation, but there is no doubt that it fundamentally reshapes the physician-patient relationship and role of clinicians as well[4]. On many levels, then, it is incumbent upon innovators and regulators to adopt an approach to HCPs characterized by collaboration rather than division.

Operationalizing clinical engagement

Approaches such as co-production, co-design, and co-creation have been proposed as a way of overcoming the knowledge to practice gap[6]. With respect to HCPs, clinical engagement is a subset of these broader characterizations and refers to the active involvement of clinicians in the problem definition, design, planning, implementation, adoption, and optimization of digital health solutions, via the use of their knowledge and experience to ensure developed solutions are fit for purpose[7]. Key to this definition is the word "active." HCPs are often "consulted" by digital health innovators, which, in many cases, is equivalent to being a passive figurehead, enabling companies to claim that their product is backed by clinicians. That said, it would be ignorant to suggest that active involvement of clinicians is easy to achieve—three possible considerations may assist. First, financial incentives alone are not enough[7]. Other incentives might include optimization of workflow efficiency, improvement in clinical outcomes, and most importantly, time. With studies suggesting that over 60% of U.S. physicians are experiencing burnout[8], it is unreasonable to expect that they will be able to meaningfully engage in co-creation without adjustments to their schedules and patient volumes. Second, there must be an increased focus on embedding learning about digital health technologies in clinical curricula[7]. The reality is that every HCP is interacting with digital health on a daily basis—in fact, the average number of digital tools in use by a physician was 3.8 in 2022[9]. Therefore, it is vital for clinicians to learn about digital health, not only for personal use, but to enable their informed and robust participation in co-creating these technologies. Finally, as Landers et al. discovers, there is a role for regulatory guidelines in mandating that HCPs participate in digital health innovation. Payors and regulatory bodies might consider augmenting

their approval processes by stipulating that clinicians must be involved in the development and / or vetting of digital health tools, ultimately a proxy for their clinical safety and efficacy.

Conclusion

Within digital health, it is true that we must "Sync fast and solve things." We must ensure, however, that we do not sacrifice the essential input of clinicians for speed. As people who have dedicated many years to their education and training, they are vital co-creators if digital health is to continue changing healthcare for the better.

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Competing interests

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