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Poster Title

Hacking healthcare: an assessment of healthcare hackathons and systems-based practice among providers

Authors

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Abstract

In 1999, the Accreditation Council for Graduate Medical Education (ACGME) and American Board of Medical Specialties (ABMS) outlined systems-based practice (SBP) as one of six core competencies required of residents and physicians. SBP calls for an awareness of and responsiveness to the larger context of health care, as well as the ability to call effectively on other resources in the system to provide optimal care.

Intrinsic to SBP and its implementation in curricula are challenges presented by structural barriers that separate clinicians and other critical stakeholders. In addition, there remains a lack of clear understanding of SBP, its assessment methods, and its integration in daily practice (Johnson, et al.). In learning to situate themselves within the larger context of the healthcare system, medical students and physicians inevitably develop a keen sense for the anachronistic processes and workarounds that result in unmet clinical needs and inefficiencies in patient care. Often, however, they lack access to the resources, tools, networks, and channels to translate pain points into innovative and sustainable systems-level changes.

One space that has developed to fill this void is the healthcare hackathon - an interdisciplinary gathering that brings together diverse stakeholders for a weekend-long gathering to present pain points and work on collaborative teams to “hack” prototypes, platforms, apps, and services as solutions. In this capacity, “hack” is a term imported from similar gatherings of programmers in Silicon Valley with the common goal of accelerating innovation. This coming together of health professionals, patients, developers, engineers, designers, and entrepreneurs provides a unique and inclusive space that enables the fusion of different perspectives and talent. Healthcare hackathon engagement has seen significant growth, with over 130 globally between 2010 and 2014 by public and private stakeholders including Yale, MIT, Brigham and Women’s Hospital, Microsoft, Novartis, Aetna, athenahealth, and NHS.

We study the role of the clinical provider (including physicians, nurses, physician assistants) and the ways that participation has on developing SBP as a competency beginning in medical school and through residency and clinical practice. Through interviews with clinically oriented participants and the assessment of ventures and institutionalized changes that have realized their inception at the healthcare hackathon, we come to understand such spaces as critical to identifying systems-errors and implementing systems-solutions. Clinical participants are empowered with the community, resources, and tools to continue engaging with interprofessional teams across the healthcare system with a focus on developing solution rather than workaround processes. Additionally, we present several models of differing scope that can serve as foundations for innovation, and stakeholder engagement, and SBP for academic institutions to implement.

References

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