A Learning Health System Agenda for Organizational Approaches to Enhancing Occupational Well-being Among Clinicians

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The last decade has deepened the understanding of clinicians’ occupational well-being, including having characterized the prevalence of burnout (traditionally defined as emotional exhaustion, depersonalization, and a decreased sense of personal accomplishment) and the variation in burnout across specialties and professions. Accordingly, addressing clinicians’ occupational well-being (hereafter referred to solely as well-being) has become a national priority, as evidenced by the focus of the National Academy of Medicine and the US surgeon general. The importance of this topic has been amplified by the effects of the COVID-19 pandemic, including clinicians experiencing deep exhaustion and concerns about their own safety, a proliferation of message- and technology-based care, and some clinicians reevaluating their desire to remain in the health care workforce. Evidence from before the pandemic has increased understanding of how well-being relates to quality of care and factors that might influence well-being, such as time spent using electronic health records, cognitive load, and team and leadership structures.

It will now take a fundamentally different approach than traditional disease-specific or triple aim-focused health services research to generate the evidence to more fully understand the drivers, consequences, and effective interventions to improve clinician well-being. It is time for a learning health system approach and associated, dedicated research and operational funding to create rigorous evidence on interventions that work for enhancing well-being. Such an approach is characterized by health systems constantly improving and innovating through operations-partnered research with evaluation, knowledge capture, and dissemination as key parts of the innovation and product delivery experience. A learning health systems approach could enable assessment of whether interventions are working in the ways they are intended at both a national and individual health systems level.

A report from 2017 found that organizational-directed interventions are more effective than those targeted at the individual. Yet current understanding of how health system organization and culture affects burnout, and more important, what to do about it, is still in its infancy. With the goal of building the health care system back stronger in a postpandemic world, the next frontier is a learning health system-based research agenda that fully characterizes clinician well-being, its determinants, and the factors that can help alleviate it. This agenda, focused on the practice efficiency and organizational culture domains in Stanford’s model of professional fulfillment, as well as the organizational structures that facilitate the individual self-care domain, can help identify the most effective approaches to enhance both well-being and quality of care, while also informing funding priorities by public and private institutions.

A deeper understanding of the specific and actionable drivers of burnout within already recognized broader domains will require explicit characterization of the many interrelationships between practice and cultural factors, as well as their intersection with personal factors. Examples of these practice and cultural factors include team organization (eg, team structure, skill level, and stability), electronic health record and documentation burden, cognitive load, workplace design, a workplace culture of diversity and inclusion, and more. Further work is needed to characterize the effects of burnout on outcomes such as quality, population health, patient satisfaction, health equity, and other metrics central to evaluating modern health care systems. It is likely that these outcomes are both drivers and consequences of well-being because a workplace that structurally enables physicians and other health care workers to deliver high-quality, safe, and equitable care is likely to foster physician satisfaction. In addition, a much deeper understanding is needed of what interventions successfully improve the clinician experience, which of these are sustainable, and what the effects of these interventions are on the outcome metrics noted above, including satisfaction, quality, and safety.

These potential interventions could be considered in 4 main categories. The first category, new and adapted workflows, includes ways of working that enhance the clinician experience while also improving efficiency. These could range from team-based workflow interventions, such as office visits with substantial involvement of other team members, to optimized medication refill workflows. The second category, technologies, could include artificial intelligence–powered documentation support, which has the potential to significantly reduce documentation burdens, or innovative information displays that enhance the processing of information necessary for...
clinical care or population health interventions. The third category, enhanced clinical supports, might involve documentation assistance (whether in-person or remote) and other administrative supports that facilitate clinician focus on clinical care and patient relationships. The fourth category, clinician training, has the potential to support clinicians in managing change and systems improvement, leading teams, and building strong organizational cultures.

As interventions are implemented, their influence on multiple dimensions must be robustly evaluated to enable characterization of what interventions successfully improve occupational well-being in specific settings, refinement of approaches taken based on the evidence generated, and dissemination of successful approaches. The first of these dimensions, intermediate metrics upstream of burnout, can help track progress even ahead of being able to reduce burnout scores. In the practice efficiency realm, examples of these metrics include team structure, stability, and skill level, changes in time spent on the electronic health record, and cognitive load, whereas in the organizational culture realm they might include demonstration of wellness-centered leadership behaviors (ie, cultivating strong relationships, creating consensus for priorities, recognizing and appreciating individual talents), values alignment, perceived appreciation from leaders, colleagues, and patients alike, and control over schedule.

The second of these dimensions, experiences of diverse clinical team members, must be assessed at multiple time points to assess the effects of these interventions. Notably, while the experiences of those clinicians for whom an intervention is targeted are central to understanding positive effects, the experiences of other members of the team are also important to characterize potential positive and negative externalities.

Moreover, there is an opportunity to measure the effectiveness of interventions on broader outcomes, including those with urgency during a contracting of the clinician workforce, such as access, quality of care, achievement of population health metrics, safety, clinician turnover, retention, equitable patient outcomes, and costs of care.

Several factors are needed to achieve this proposed vision for a learning health system. First, operational leaders (ranging from chief operating officers to practice administrators) must be willing to partner with researchers and vice versa to test key solutions in multiple types of clinical settings ranging from private practice to academia and practice arrangements in between. Rigorous evaluation should be prioritized when possible (eg, via high-quality observational studies and pragmatic randomized clinical trials). Complementing rigorous designs, diverse approaches (from traditional quantitative methods to human factors engineering and qualitative and ethnographic methods) should be used to inform interventions and to understand their related outcomes. With learning health system data collected nationally, convening bodies such as the National Academy of Medicine, the Agency for Healthcare Research and Quality, Stanford’s Professional Well-being Academic Consortium, the American Medical Association, and others could have an opportunity to pool data on a large scale to draw generalizable conclusions about what improves practice efficiency, organizational culture, and institutional support for individual self-care.

Perhaps most important, dedicated and significantly enhanced funding for operations-partnered research is needed. Building on momentum from the passage of the Dr Lorna Breen Act and its allocation of funds for research to support mental health among health care professionals, there is an opportunity for agencies such as the National Institutes of Health, the Agency for Healthcare Research and Quality, and the Patient-Centered Outcomes Research Institute to provide dedicated funding for well-being research with focus on the intervention domains noted above and to develop divisions dedicated to this work.

As the health care system and clinicians settle into a new pattern of care delivery in the third year of the COVID-19 pandemic, well-being research is at a crossroads. Even though the well-being problem facing US health care has been characterized, the next challenges center on the ability to implement changes and fully understand their effects. The learning health system approach that leverages partnerships between operational leaders and skilled investigators could create an opportunity to make the path toward meeting these challenges evidence driven, pending appropriate resource dedication and focus.

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REFERENCES