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How can Health Systems Advance Patient-Reported Outcome Measurement?

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Achieving patient-centered care requires that healthcare systems address patients' physical health as well as health-related quality of life and emotional well-being (1). While clinical measures and metrics are well ingrained in healthcare delivery, the same is not true for systematic approaches to integrating the patient's voice into care delivery and documentation (2). But this is changing. Patient-reported outcome (PRO) measurement is the process of collecting information directly from individuals about how they function or feel with respect to their health, quality of life, mental well-being, or health care experience (3). Evidence from an array of clinical implementations support that when routinely captured and incorporated into care, healthcare teams are better able to assess and address symptoms, track treatment outcomes, and improve communication and engagement with patients (2, 4-5).

Due to the increased use of PROs in clinical care, there is growing interest for leveraging PRO data to support quality and population health outcome metrics and payer incentives for care quality. For example, in 2013 the National Quality Forum (NQF) established guidance for PROs in performance measurement (6). At present, the NQF endorses over 20 PROs as performance measures spanning mental health, transitions of care and palliative care (7). More recently, the Center for Medicaid and Medicare Services adopted the comprehensive care model for joint replacement, a national bundled payment program requiring PRO measurement prior to and following total joint replacement (8). As interest in collecting PRO measures across a range of health conditions expands, evidence for successful systemwide implementation strategies to collect PROs to support decision making at both the patient and population health level is urgently needed.

In the current issue of *The Joint Commission Journal on Quality and Patient Safety*, Gerhardt et al. report on the development and implementation of an enterprise PRO Program to support routine clinical care at Cincinnati Children's Hospital Medical Center (CCHMC) (9). This initiative highlights the planning, infrastructure and coordination necessary when implementing a program across multiple clinics and health conditions. To date, the authors report an overall completion rate of 75% across the 68 unique PRO measures in use – close to reaching the system goal for 80% completion of PRO measures. This success is

dependent on responsive Health Information Technology (HIT) design, robust and adaptive implementation strategies, and real-time analytics to support program monitoring.

The increased interest in expanding the use of PROs into clinical practice is in part facilitated by advancements in HIT. HIT's ability to efficiently capture and deliver PRO data to providers within existing workflows expands PRO measurement from research-only initiatives toward clinical applications (10). Expanded use of HIT web portals presents important opportunities for healthcare systems and necessitates a strategic approach to implementation. As Gerhardt et al. describe, early experience of PRO measurement at CCHMC occurred organically without a standard process. To gain efficiencies and curtail challenges for future sustainability in data management, CCHMC established a PRO Governance Committee to support the design, implementation and oversight of the PRO Program. Gerhardt et al. involved a multi-disciplinary team in both the Governance Committee and operations sub-team. This important step recognizes the diverse experience and expertise within the healthcare system necessary to address patient, clinical and IT workflows in the design of PRO implementation.

Through collaborative work, the Committee worked to design standards for implementation, drawing on existing and successful models of PRO implementations. This supported the identification of critical components for implementation readiness: a clinical champion; relevant and valid PRO measures to inform patient care; training to interpret PRO data; and analytics to guide PRO data use and future improvements. Important to PRO measurement is the provision of actionable data to drive decision-making. The CCHMC initiative describes how PROs advance the delivery of patient-centered care. As illustrated through diverse case studies, PRO measurement supports individualized treatment planning for children with food allergies, co-planning diabetes self-management strategies, and uncovering depression among children with diabetes. The case studies highlight the importance of PRO data in the identification and management of issues best reported by patients such as depression and anxiety both which may drive more tailored, patient-centered care.

Notable to this project is the use of data to drive operational improvement to PRO capture. While PROs can provide valuable information about an individual's health, broad implementation across clinical settings is challenging. PROs increase the burden to both patients and healthcare teams to ensure that data are collected and made available in a timely manner, scored and interpreted, and discussed during office visits in what is already viewed as a compressed amount of time (2, 11). Creating, at the outset, metrics for monitoring the implementation process allows teams to identify opportunities for improvement. For example, routine review of PRO completion data in the Heart Institute resulted in a reduced and revised PRO measure set selected to reduce survey burden to patients. As Gerhardt et al. demonstrated, the reduction from 84 questions across 3 unique PRO measures (12-14) to 16 questions from the PROMIS® anxiety and depression modules (15) increased completion rates 15% from a year-to-year comparison.

Given the focus on capturing PROs for clinical decision-making and quality improvement initiatives, healthcare systems play an important role in the future of PRO measurement. Gerhardt et al. contribute important findings for how healthcare systems balance the need to

create sustainable measurement strategies while balancing the unique needs of patients and the clinical teams that provide patient care. They demonstrate the importance of engaging a multidisciplinary team to provide governance and oversight while also ensuring clinical champions and leadership for implementation. The field of PRO measurement in clinical care is still new and IT systems which support implementation continue to evolve. However, given the increasing prevalence of chronic conditions with patients as the most knowledgeable source of symptom trajectories, validated PROs are likely to be a core data element in the future delivery of healthcare. Further work is needed to explore how PRO measurement is best implemented and sustained to advance patient care in the clinic and at the health system levels.

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