Using a multidisciplinary data approach to operationalize an experience framework

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Abstract

Like many healthcare organizations, Baylor Scott & White Health (BSWH) is awash with data. Often, this data is used in siloed departments to monitor safety and quality, make local business decisions, and motivate staff to improve processes to achieve sustained excellence and market share. As margins get thinner and competition from various disrupters increases, organizations have tried to improve the patient experience to remain viable as part of a calculated strategy. Nevertheless, these entities have struggled to focus limited resources for sustained improvement in patient experience. This article details how a large Texas-based healthcare system "operationalized" The Beryl Institute's Experience Framework via a multidisciplinary data approach. "Key gaps" that negatively impact the patient experience were identified using 99 data elements from common, readily available sources. Demonstrating the interconnected nature of the data has proven to be essential in engaging leaders to view the patient experience as an essential component to providing quality care. This crucial support from senior leaders drives efforts to safety, quality, and experience. A plan for how this approach can be implemented in any organization is shared, along with a discussion on sustainability, the use of these tools in an organization's improvement journey, and how it can help create higher-performing care teams. Limitations and future opportunities for enhancements to the approach are also provided.

Introduction

With hospital operating margins hovering around 1.7%,[1] organizations are aggressively pursuing ways to boost revenue. One such tactic to bolster financial sustainability is building consumer loyalty[2] by reacting to patient (consumer) feedback to improve experience scores. As patients' expectations continue to rise, health care organizations struggle to maintain improvement efforts to meet and exceed these expectations.[3,4] The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)[5] and other CAHPS-like surveys in various care settings have traditionally measured the patient's perceptions of their healthcare in the United States of America. Since the survey's inception, results have shown that healthcare consumers are no different in their needs and wants than consumers of other goods and services.[6] In general, customers are becoming more vocal as they demand better performance, quality, and service, all at a lower price.[7] As of late, "real-time" surveying, social media platforms, pay-to-play review sites, and a host of other mediums have become vehicles for patients and families to provide feedback in a timely and impactful manner.

Organizations spend countless hours and dollars monitoring and processing this deluge of feedback. This aggressive pursuit of creating an "ideal" patient experience has led to some improvements in scores nationally, but when we review the publicly reported data on Hospital-Compare, the performance on the HCAHPS Overall Hospital Rating question has flatlined since 2016 (see appendix). As of the 2018 program year, HCAHPS accounts for 25% of Hospital Value-Based Purchasing Program,[8] and one can assume there have been some immediate financial benefits to those organizations that have improved. In recognition of the interdependence of experience and quality data, some organizations have also seen localized improvements in quality and safety outcomes that have been long overdue in healthcare.[9]

Plateauing performance has forced organizations to scramble to discover the next significant advancement that will lead to continuous improvement. Staff turnover, leadership with individual agendas, and personal "best practices" from previous work experiences complicate the pursuit of continuous improvement. Redundant or contradictory initiatives aimed at the lowest performers are deployed to the detriment of higher-performing areas of the organization. Lowering the previously higher scores

fuels a minimally productive cycle of "improvement" and creates fatigue and frustration within the workforce as pressure mounts to achieve higher scores.

Like many other organizations, Baylor Scott & White Health (BSWH) has sought guidance from consultants from various industries in the "consumer experience" space. Historically, BSWH struggled to define the patient experience. That is, until 2010, when The Beryl Institute[10] crafted a comprehensive definition of the patient experience, behind which healthcare organizations could galvanize. However, the patient experience was still widely considered a measure unto its own, primarily addressed by nursing professionals, and often was limited to traditional hospitality interventions.

Even as conversations about the research connecting employee engagement and the customer experience in healthcare began,[9] organizations struggled to implement coordinated processes to address these revelations. The idea of experience scores being an outcome of all touchpoints shaped by an organization's culture[10] was still an immature concept that lacked the traditionally accepted statistical measures. There was an absence of specific data elements within big buckets or themes that could guide systemic improvement efforts in an environment with limited resources and attention.

In 2018, when The Beryl Institute developed and released the Experience Framework[11] (Figure 1), BSWH found its path forward. After studying the framework and exploring the data to identify gaps to drive improvement, a concrete approach emerged from this nebulous concept of the patient experience. This framework best represented what the BSWH patient experience team needed to identify opportunities, break down silos, and focus scarce resources to improve the experience for all.

The Experience Framework currently uses a self-assessment to guide organizations. The framework provides a visual for organizations that patient experience is not a measure unto itself; rather, it is an outcome of the touchpoints along the care continuum necessary to providing safe, quality care. Unfortunately, self-assessments' shortcomings are well documented[12,13] and failed to provide the level of granularity, transparency, and statistical might BSWH needed. Consequently, the experience team was concerned that this subjective self-assessment would not be trusted. The Experience Framework served as an excellent template for applying data elements to each lens to create a more objective measure. With the backing of performance data and facilitated internal conversations, the framework came alive by identifying specific problem areas that staff or patients were experiencing that could contribute to a poor patient experience. The objective of this study was to find a better way to identify "high-impact" areas of opportunity that would result in an improved experience for our patients and staff.

Background

BSWH provides a full range of inpatient, outpatient, rehabilitation, and emergency medical services through

Figure 1. The Beryl Institute Experience Framework (8 Strategic Lenses)
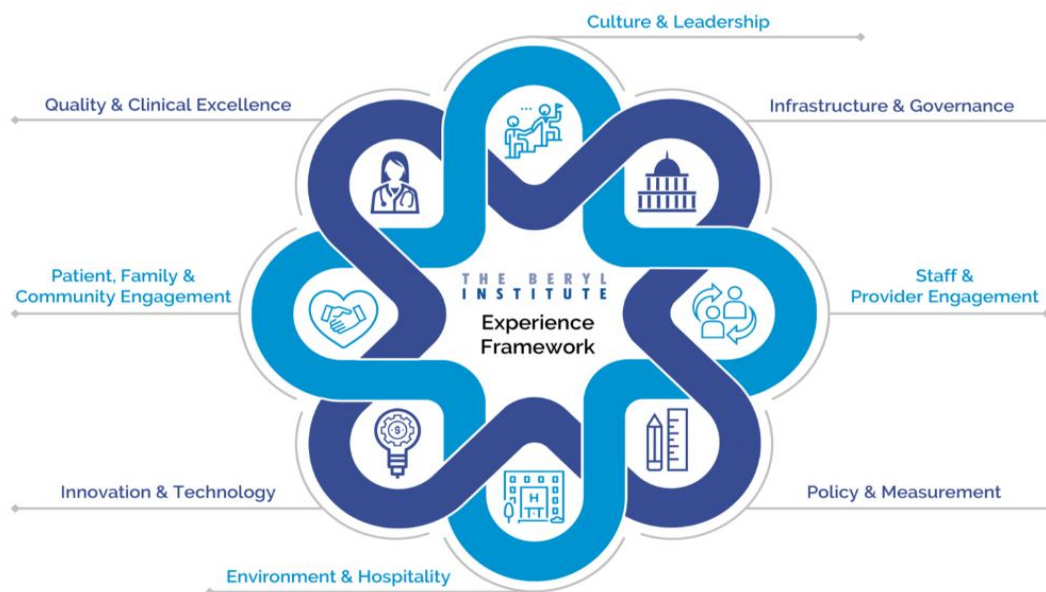
more than 50 hospitals and over 800 patient access points. With approximately 49,000 employees and 7,500 physicians, BSWH is the largest not-for-profit hospital system in the state of Texas and one of the largest not-for-profit systems in the United States.

Like many other healthcare organizations, BSWH comprises a complex system of departments working daily to improve their business. Unfortunately, we have seen these optimization efforts of individual departments unintentionally decrease optimization within another department (i.e., ED throughput efforts increasing inpatient wait times). This well-intended work only creates additional pain points of fragmented care resulting in delays, inefficiencies, and undesired outcomes for the patient and the organization.[14] This asynchronous optimization negatively impacts the patient's perception of teamwork and ultimately their care, which erodes trust. We see much of this frustration in our patient comments in experience surveys and online reviews.

The Beryl Institute Experience Framework, while lofty, best illustrated the interconnectedness of the departments that contribute to the patients' overall experience. As a data-driven organization, the patient experience team had to adapt the Experience Framework to promote ownership by giving local entity leaders actionable data to identify clear opportunities for improvement. The first step of this process was to re-imagine the original version of The Beryl Institute Experience Framework,[5] strategic lenses and definitions to align with the BSWH logo (see Appendix), values, and strategic imperatives. Using existing data elements related to employee engagement, CAHPS surveys, quality, and operational metrics, etc., we identified individual results that could fall under each "lens". We have included a few examples of metrics below, and these are examples taken from multiple metrics used to measure each of the eight lenses.

- Culture & Leadership - NDNQI RN Survey item "High standards of nursing care are expected by the administration"
- Environment & Hospitality - HCAHPS item "Quietness of hospital environment"
- Patient & Family Engagement – Human Resources People Survey item "The impact to patient/member is central when decisions are made at my entity/facility"
- Quality & Clinical Excellence – NHSN measures of "Hospital Acquired Infection rates"

Methods

BSWH 8 Lens Framework – Data Elements
The selection of data elements was a subjective process. Leaders made subjective decisions through several months of socialization and discussions to ensure that the data

elements used for each lens gave a reasonable measure of performance. The first iteration of the BSWH framework included fewer than 50 data elements, but further socialization quickly identified additional data sources and outcomes. The current framework applies 99 total data elements from eight data sources across all BSWH adult acute care hospitals to score seven of the eight lenses. The strength of prior research on the impact of various elements on the patient/consumer experience helped select data sources objectively.[7,11] One lens based on the definitions and influence factors of the lens provided in the original Experience Framework publication maps individual measures from identified data sources. It is recognized that a data element could be a measure of more than one lens, but this model was built so that each data element would only be assigned to one lens.

There are specific resources and platforms that a local entity has little control over as an integrated health system. One primary example is technology. For a system like BSWH, Information Technology solutions must be enterprise-wide to support the standardization of patient care and data and provide the level of technical support required to build and maintain these systems cost-effectively. The technology and infrastructure lens was not included in the scoring for an individual entity.

The availability of benchmarks is critical in this framework because the goal was to have a single score for each lens to identify the level of performance quickly. All metrics across all data sources were placed on a standard scale using percentile ranks. The data sources include the patient satisfaction surveys across inpatient, emergency department, and ambulatory surgery, selected items from the BSWH Human Resources People Survey, performance on readmission, length of stay, hospital-acquired infections, falls, and select items from the NDNQI RN Survey.

Each of the data elements was scored on a 5-point scale based on the percentile rank performance (90th percentile = 5 points, 75th-90th = 4 points, 50th-75th = 3 points, 25th-50th = 2 points and < 25th = 1 point). The len's mean score was found by averaging the data source scores after each averaged metric score utilizing the 1–5-point scale. This was done so that the data sources that contribute to a lens score are equally weighted. For example, the Culture & Leadership Lens uses a total of 21 data elements (four items from the inpatient survey, one item from the emergency department patient survey, two items from the ambulatory surgery patient survey, seven items from the NDNQI RN survey, and seven items from the employee engagement survey). Additionally, there is no weighting applied to the lenses; they are all equally weighted in the overall score calculation. Once scores were calculated for each lens, those seven scores were averaged to calculate an overall entity score.

Figure 2. Scatter Plot of HCAHPS Hospital Rating (% Top Box) and BSWH Lens Scores
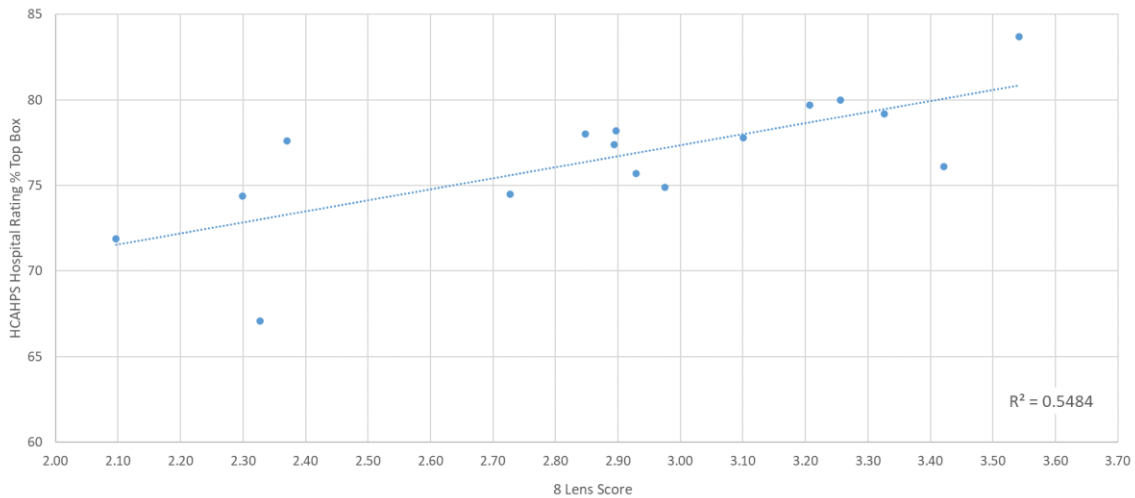
The BSWH framework scores were highly correlated with the HCAHPS Rate Hospital Item (% Top Box). Across the 16 hospitals observed, the correlation was 0.74 (Figure 2) using a Pearson Correlation Coefficient. A correlation was expected, given that six of the seven scored lenses include HCAHPS items. Still, the strength of the correlation is encouraging since this shows that the BSWH 8-lens framework score can explain more than 50% of the variability in the hospital HCAHPS rankings (R-squared value of 0.5484).

The model also clusters facilities quite well. After calculating scores for all 16 adult acute care hospitals, high (median HCAHPS ranking of 81), mid (median percentile ranking of 71), and low (median HCAHPS ranking of 64) performers emerged. Moving forward, this will be useful to partner lower-performing facilities with those in the high performer group to disseminate and share best practices.

Results

The creation, adoption, and utilization of this framework is still in its infancy. However, some early results in the traditional patient experience metrics (rate the hospital) are valuable to share (Figure 3). The example below identifies the emergency department and the cleanliness of the facility as contributors to the patient's hospital rating. The framework allowed the local teams to focus their energies on these areas, and their efforts contributed positively to improving the rate the hospital measure. We recognize there is still some variation in the rate the hospital scores, and we attribute it to the other 97 data elements that will drive additional improvement initiatives. As a result, the framework is now an essential element of BSWH's overall experience improvement processes.

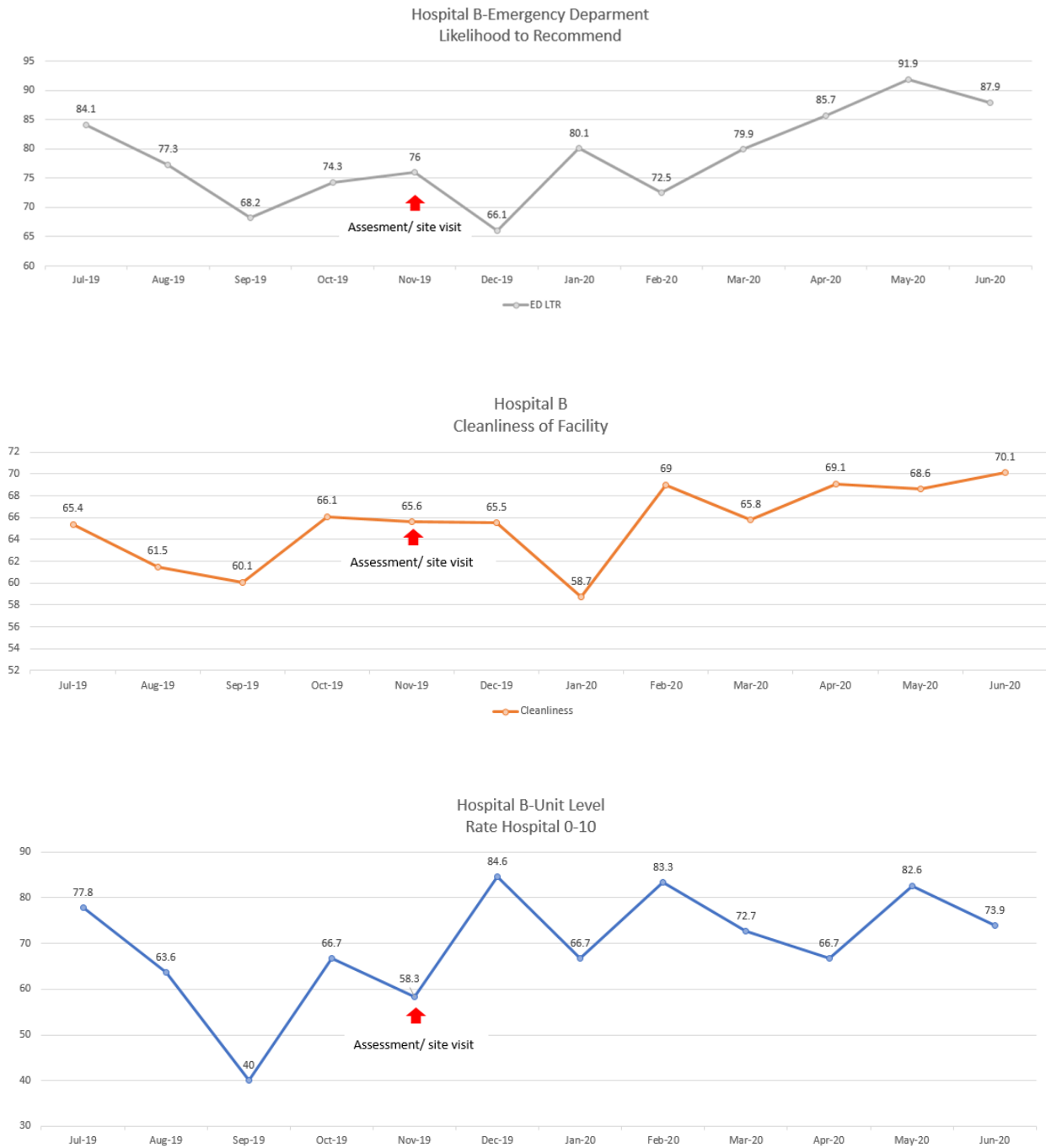## Discussion and Practical Implications

While the analysis and data elements of the 8-lens assessment are meaningful, this approach did not improve the scores by itself. It did, however, allow for the identification of specific areas (departments, units, etc.) and patient "pain points" that previous methodologies were unable to target.

Front line administrators and clinical leaders are critical to any successful improvement effort. Adding this framework to the improvement process has given them a more significant opportunity to participate in this deeper dive that provides additional context to the traditional experience improvement methodologies. This assessment is ultimately used as a starting point to rally the entire care team around targeted and sustained improvement.

It is important to note that before adopting this framework, BSWH had dedicated resources exclusively for experience via hiring an advisor for each entity. This framework bolstered the efforts of the dedicated experience team by giving them actionable data to use evidence-based interventions within the overall improvement process. Because this process traversed departments, it showed that everyone owns the experience, and it is not just a nursing duty or an experience leader's duty. This approach forces entities to have robust, multidisciplinary teams that collectively own this work. As an added benefit, it helped with reducing duplicative work since members are working together.

The level of transparency and visual appeal of the framework was well-received by senior leaders. Leaders recognized the connectedness of all data and clear direction of what will drive improvement. The leadership's

Figure 3. Local Improvement Post-8-lens Assessment

Hospital B-Emergency Deparment
Likelihood to Recommend

ED LTR

Hospital B
Cleanliness of Facility

Cleanliness

Hospital B-Unit Level
Rate Hospital 0-10

response to the data reinforces that patient experience is the sum of all interactions.[10] Supporting data has provided leaders and clinicians with factual information to implement effective, efficient, sustainable, and meaningful improvement.

This framework also helped with the "how" to create an exceptional experience by addressing three evidence-based necessities for successful improvement. Those elements are team development, motivation, and focus.[16-22] Success for any organization depends on effective teams, especially in the interdependent touchpoints that impact the experience. As it turns out, a team's success has little to do with talent and more to do with things that take time and intentional effort to cultivate.

Sustaining operational improvement requires cultivating teamwork. An analysis conducted on Google's Aristotle Project data examined what was needed to create the "best team." Surprisingly, psychological safety ranked as the number one dynamic of most successful teams at Google[17] rather than education, personality traits, or individual performance, as would be expected. These findings support the ground-breaking research that Harvard Business School Professor Amy Edmondson has performed regarding healthcare teams and their impact on safety and quality. Edmondson and others have found that psychological safety fosters inclusion by helping employees feel safe. As a result, employees are more interested in learning, achieving excellence, and connecting with others.[18,19,20] The "8-lens" assessment and subsequent discussions create an environment that allows for open and honest conversations about the data and its implications.

It is a widely held belief that the sometimes-glacial pace of experience improvement stems from a lack of desire, energy, or motivation to make things better. This belief, unfortunately, has maligned generations of workers, and it is an unfortunate misunderstanding of motivation. After four decades of research, Daniel Pink, the preeminent thinker on human motivation, concluded that true motivation comes from autonomy, mastery, and purpose.[20] Extrinsic rewards or "Carrot and Stick" methods deployed in healthcare do not drive motivation. These three elements – autonomy, mastery, and purpose – are fundamental in creating ambition in humans. Psychological safety creates an atmosphere in which everyone seeks out new ways (autonomy) to improve, become experts (mastery), and speak up or push for change to achieve a shared goal (purpose). This human drive is critical to creating and sustaining high performance.[20]

Every component of care delivery is essential, and healthcare professionals only have so much bandwidth to dedicate to improvement. Using this framework, healthcare teams can identify specific factors that negatively impact the experience and create targeted interventions. These targeted improvement opportunities led to creating what would be considered a Wildly Important Goal (WIG)[21] for an entity or unit. The authors of The Wall Street Journal business bestseller, *The 4 Disciplines of Execution* (4Dx), state that a WIG provides clear, consistent direction toward a result of absolute importance. However, clear direction or purpose is lacking in most organizations, especially on the front lines. When researching and developing the 4Dx methodology, the authors found that 15% of employees could not name one top company goal, and 85% named what they thought was the goal.[21] This confusion about what work is essential has caused initiative fatigue and stalled progress. The BSWH "8-lens" framework focuses on the "end-user" and is unambiguous about what is necessary to improve the experience.

One should not underestimate the use of a single goal by an individual or organization to help achieve excellence. Individuals' and organizations' ability to focus is what Dr. Dan Goleman considers a key ingredient to excellence.[22] He says that the lack of focus can permeate every aspect of a person or organization and cause them to falter. Healthcare organizations like ours have traditionally struggled with focusing on a singular goal to improve the experience. Using this more statistically backed framework has helped narrow the list of goals and enabled BSWH to better articulate what is essential and needs improvement.

Using this framework can help other organizations better understand what is impacting the experience the most and apply their limited resources to yield results. This framework provides a much-needed departure from the traditional experience improvement approaches that seem to result from tendencies to do what Nobel Laureate Daniel Kahneman calls "predicting by representativeness."[23] Simply put, this is the act of predicting performance or drawing conclusions non-statistically by using anecdotes or isolated events. Kahneman emphatically calls this all-too-familiar process inefficient and inaccurate.[23] With the pressures to succeed and scarce resources, this framework improves accuracy by supplementing the traditional improvement opportunity evaluation process with additional objective measures.

Future Studies

As this approach continues to mature, further refinements are sure to develop. Some known refinements could include better integration of comment analysis and weighting of lenses that show greater significance. Additionally, real-time progress can be difficult to ascertain due to some data elements (i.e., engagement surveys, NDNQI surveys, etc.). The measure is not sensitive to daily or even monthly changes, and some data sources may cover slightly different periods and only be available annually.

The innovation and technology lens definition should be better defined in a future enhancement. An early contender for consideration is the availability of interactive technology at the bedside. Bedside technology could include on-demand education and other digital platforms to support patients in managing their health long-term. BSWH does have a well-developed and popular mobile application that attempts to address this challenge. The challenge for the patient experience team lies in measuring and incorporating patient use and engagement with the app while they are in the hospital.

This assessment should also be explored as an evaluation tool to gauge overall organizational culture. As discussed above, this approach incorporates both subjective and objective elements. This potential new application to gauge organizational culture could result in a more trusted, validated measure.

Finally, this enhanced framework provides a starting point for administrative and clinical leaders to identify areas of opportunity to focus efforts and start a conversation to reinforce the interdependent nature of the patient experience. The information that this framework provides is powerful and affords meaning to experience metrics through a statistical approach. Every healthcare organization, regardless of location, has this data. Organizations are encouraged to leverage their data and refine this approach to drive improvement in the industry. The impact across the healthcare landscape could be immense. The 8-lens approach will shape healthcare and ensure everyone feels safe, valued, understood, and respected.

References

1. Kacik A. Operating margins stabilize, but not-for-profit hospitals still vulnerable. Modern Healthcare. https://www.modernhealthcare.com/providers/operating-margins-stabilize-not-profit-hospitals-still-vulnerable. Published April 26, 2019. Accessed September 3, 2020.
2. Betts D. Value of patient experience: Deloitte Us. Deloitte United States. https://www2.deloitte.com/us/en/pages/life-sciences-and-health-care/articles/hospitals-patient-experience.html. Published May 16, 2017. Accessed October 18, 2021.
3. Trends report: 2019 healthcare consumer trends report. NRC Health. https://nrchealth.com/resource/2019-healthcare-consumer-trends/. Published May 25, 2021. Accessed September 17, 2021.
4. Consumerism: The role of patient experience in brand management and patient acquisition. https://www.amico.com/sites/default/files/PressGaney2018_Consumerism_White_Paper.pdf. Published December 13, 2018. Accessed September 1, 2020.
5. HCAHPS: Patients' perspectives of care survey. CMS. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/HospitalHCAHPS. Accessed October 18, 2021.
6. Consumer priorities in health care survey - deloitte us. https://www2.deloitte.com/content/dam/Deloitte/us/Documents/life-sciences-health-care/us-lshc-deloitte-2016-consumer-priorities-in-health-care-survey.pdf. Published 2016. Accessed October 18, 2021.
7. Lafley AG, Martin RL. *Playing to Win: How Strategy Really Works*. Boston, MA: Harvard Business Review Press; 2013.
8. How to Read Your FY 2018 Hospital Value-Based Purchasing (VBP) Program Percentage Payment Summary Report (PPSR). https://qualitynet.cms.gov/inpatient/hvbp/resources. Published 2018. Accessed October 18, 2021.
9. Achieving Excellence: The Convergence of Safety, Quality, Experience and Caregiver Engagement. Press Ganey -Strategic Insights Report, 2017.
10. Wolf JA. Defining patient experience - the Beryl Institute. https://www.theberylinstitute.org/blogpost/593434/109038/Defining-Patient-Experience. Published September 7, 2010. Accessed September 1, 2020.
11. Wolf JA. Introducing a framework for experience in healthcare. https://www.theberylinstitute.org/blogpost/593434/308047/Introducing-a-Framework-for-Experience-in-Healthcare. Published August 22, 2018. Accessed September 2, 2020.
12. Dunning, David., Heath, Chip., Suls, Jerry. "Flawed Self-Assessments." *Psychological Science in the Public Sector,* vol 5, no. 3, 2004, pp.69-106.
13. Davis DA, Mazmanian PE, Fordis M, Van Harrison R, Thorpe KE, Perrier L. Accuracy of physician self-assessment compared with observed measures of competence. *JAMA.* 2006;296(9):1094. doi:10.1001/jama.296.9.1094
14. Berlanga GA, Husby BC. P. 3. In: *Lean Daily Management for Healthcare Field Book*. CRC Press; 2016.
15. Wolf JA. To Care is Human: The Factors Influencing Human Experience in Healthcare Today. https://www.theberylinstitute.org/general/custom.asp?page=ToCareIsHuman. Published 2018. Accessed March 16, 2021.
16. Kang JY, Lee MK, Fairchild EM, et al. Relationships among organizational values, employee engagement, and patient satisfaction in an Academic Medical Center. *Mayo Clinic Proceedings: Innovations, Quality & Outcomes*. 2020;4(1):8-20. doi:10.1016/j.mayocpiqo.2019.08.001
17. Duhigg C. What google learned from its quest to build the perfect team. The New York Times. https://www.nytimes.com/2016/02/28/magazine/what-google-learned-from-its-quest-to-build-the-

perfect-team.html. Published February 25, 2016. Accessed June 26, 2020.

18. Edmondson AC. How fearless organizations succeed. strategy+business. https://www.strategy-business.com/article/How-Fearless-Organizations-Succeed?gko=63131. Published November 14, 2018. Accessed August 24, 2020.

19. Tjan AK, Walker CA, Renner SDSand D. High-performing teams need psychological safety. here's how to create it. Harvard Business Review. https://hbr.org/2017/08/high-performing-teams-need-psychological-safety-heres-how-to-create-it. Published August 24, 2017. Accessed June 26, 2020.

20. Pink DH. *Drive: The Surprising Truth about What Motivates US*. Edinburgh: Canongate Books; 2018.

21. McChesney C, Covey S, Huling J, Walker B, Thele S. *The 4 Disciplines of Execution*. London, England: Simon & Schuster; 2021.

22. Goleman D. The four basic moves to strengthen focus. Psychology Today. https://www.psychologytoday.com/us/blog/the-brain-and-emotional-intelligence/201310/the-four-basic-moves-strengthen-focus. Published October 7, 2013. Accessed March 3, 2021.

23. Kahneman D. *Thinking, Fast and Slow*. New York: Farrar, Straus and Giroux; 2

Appendix

HCAHPS National Performance as Reported on Hospital Compare

HCAHPS Overall Hospital Rating - National Trends
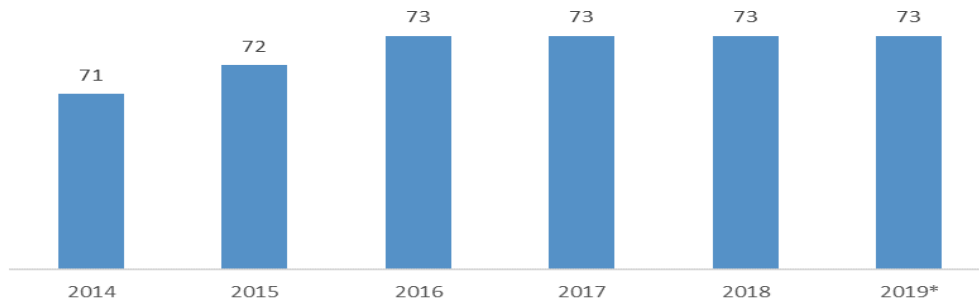
*2019 is the latest available, which covers July 2018 – June 2019

*adapted from hospitalcompare.gov

BSWH Personalization of The Beryl Institute Experience Framework and Definitions

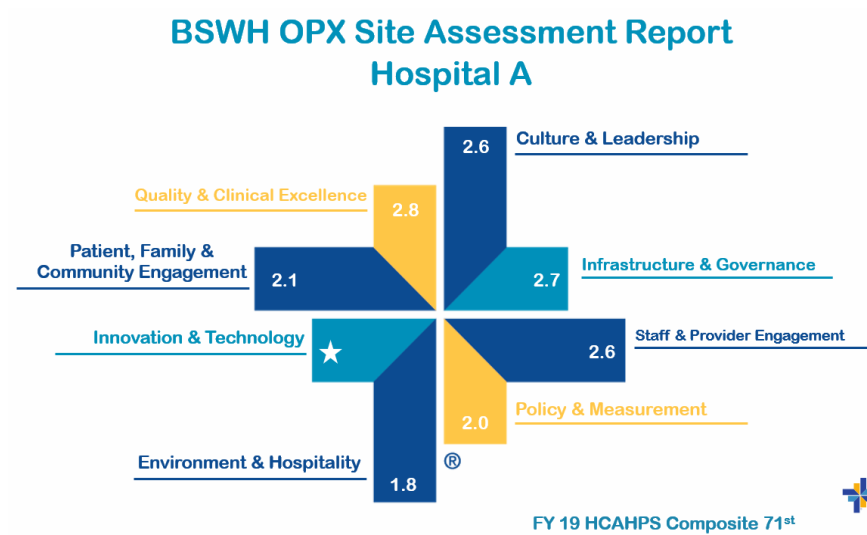Essential Component (8 lenses) Definitions

1. **Quality and clinical excellence**
   Consistent delivery of high quality, safe care (*Zero Harm*) that fosters patient confidence

2. **Staff and provider engagement**
   An environment that fosters the essence of healthcare, human beings caring for human beings that builds professional fulfillment

3. **Culture and leadership**
   Highly reliable organization that fosters a strong and safe foundation to deliver an exceptional experience

4. **Patient, family and community engagement**
   Evidence based relationship building tactics that foster highly engaged communities

5. **Environment and hospitality**
   Prioritized enhancements/offerings that foster a sense of confidence, compassion and comfort

6. **Infrastructure and governance**
   Consumer driven operational enhancements that foster a structured and disciplined environment that allows the realization of strategic imperatives

7. **Policy and measurement**
   Realtime data/feedback across all touchpoints that foster a transparent environment for outcomes reporting and opportunity identification

8. **Innovation and technology**
   Offer market driven technologies that are based on individualized consumer demand that fosters an enhanced delivery of safe, high quality care
   * Adapted from the evidence-based Beryl Institute Patient Experience Model

Appendix (cont'd.)

The BSWH 8 Lens Framework Scores

Experience Improvement Process