BACKGROUND RESEARCH REPORT

THE RELATIONSHIP BETWEEN PATIENT EXPERIENCE AND FAVORABLE HEALTH OUTCOMES

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Summary of the organization's mission: The office of patient experience seeks to provide an avenue whereby patients are listened to and feel empowered to be involved in the delivery of their healthcare. Providing an impeccable experience that is patient-centered to improve health outcomes is the core of the organization's mission.

Summary of the client' problem: About 200 staff members at Michigan medicine (child health specialists, clerks, nurse etc.) volunteer their time as supervisors to oversee and coordinate all volunteers (2700). As much as there is adequate collection of data with respect to the volunteers; there is not enough information about placement/volunteer supervisors. Furthermore, due to the size of the organization, it has been difficult to develop an efficient communication channel with the volunteer supervisors. The office of patient experience seeks to provide better support for the supervisors through the collection of qualitative data on expectations and possible process improvement techniques.

Objectives of the report: Patient-centered approach is a new concept that has recently evolved in the improvement of healthcare quality. Hence, this report seeks to explore the relationships between patient experience and favorable health outcomes in the literature; as well as to examine how well the concept has been adopted in the delivery of healthcare.

INTRODUCTION

The Committee on Quality of Healthcare in America, a sub-division of the Institute of Medicine, developed a framework – Crossing the Quality Chasm – which recommended that healthcare delivery and systems should be patient-centered, effective, safe, equitable, timely, and efficient. (Kennedy, Tevis & Kent, 2014) Providing patient-centered care has since then become a top priority for most health systems, thereby leading to partnership with patients to improve experience and overall quality of care. It is popularly stated that patients satisfied with their care are more likely to adhere to care protocols and physicians' recommendations. (Fenton, Jerant, Bertakis & Franks, 2012)

Following the "Crossing the Quality Chasm" proposal; health care systems, in recent times, has seen a transition from fee for service to accountable care system. Centers for Medicaid and Medicare Services (CMS) and the Agency for Healthcare Research and Quality (AHRQ) now mandate health systems to measure and publicly report patients' satisfaction using the Hospital Consumer and Assessment of Healthcare Providers and Systems (HCAHPS) Survey. In a bid to improve healthcare quality CMS attaches a percentage of fee for services to performance of quality measures like clinical processes of care, efficiency, patients' experiences of care etc. (Sacks, Lawson, & Dawes, 2015) With this recent transition, great emphasis has been placed on the relationship between patient-centered care or better still patients' satisfaction of care and health outcomes, (Sheetz, Waits, Girotti, Campbell & Englesbe, 2014) however, this is because medical providers can offer effective treatment based on accurate and proper communication with patients. This patient-medical provider relationship provides the framework for improved care that impacts patient compliance, adherence to follow-up care, and leads to better health outcomes. (Bechel, 1998)

However, it is still unclear as to whether there is a link between patient satisfaction/experience, healthcare quality, and outcomes. While several studies have found positive relationships between patient experience and health outcomes, others have found none or an inverse relationship between patient perceptions and outcomes. Hence, the goal of this review is to explore all the possible associations between patient experience and health outcomes in healthcare.

HOSPITAL CONSUMER ASSESSMENT OF HEALTHCARE PROVIDERS AND SYSTEMS (HCAHPS) SURVEY AND PATIENT SATISFACTION

Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) is one of the several national surveys and tools used to advance patience-centered care, to improve patient experience and to provide quality care. HCAHPS was launched and implemented in October 2006 by the collaborative efforts of the Centers for Medicaid and Medicare Services (CMS) and the Agency for Healthcare Research and Quality (AHRQ). (Giordano, Elliott, Goldstein, Lehrman & Spencer, 2010). In October 2012, data from HCAHPS was linked to hospital reimbursement procedures from CMS through its Value-Based Purchasing (VBP) program. (Long, 2012) The incentivizes provided by CMS for the performance of hospital

systems were based on the quality of care provided to Medicare patients; adherence to best clinical processes and hospitals' enhancement of patient experience of care during hospital stays. However, this performance is further categorized based on a set of approved measures that are classified into four quality domains and assigned by weight. (Cms.gov) The goal of this VBP program is to eliminate waste (i.e. redundant services) in healthcare, optimize insufficient resources, reward better value and outcomes as well to facilitate innovation in health systems. (Long, 2012)

Table 1. Hospital VBP Domains and Relative Weights for Fiscal Year (FY) 2018 and Subsequent Years

Domains	**Weight**
Safety	25%
Clinical Care	25%
Efficiency and Cost Reduction	25%
Patient and Caregiver-Centered Experience of Care/Care Coordination*	25%

*CMS will rename the "Patient and Caregiver-Centered Experience of Care/Care Coordination" domain to "Patient and Community Engagement" starting from FY 2019. Adapted from (www.cms.gov)

Hospital performance on each measure of domain is compared to other hospitals during a specific period and how well they improve on each measure compared to previous years are used as reward systems to improve care quality. (Cms.gov) HCAHPS is the first national survey that measures and publicly reports patients' perceptions of their hospital care and experience. (Long, 2012) The survey methodology is a random sample of adult patients discharged from the hospital 48 hours to 6 weeks after receiving care. It has 32 questions; 21 of which are used to report public measures (for example: communication with nurses, communication with doctors, pain management, cleanliness of hospital environment, willingness to recommend this hospital etc.) and determine patient eligibility (i.e. excludes patients below 18 years old, may include non-Medicare patients, patients discharged to hospice, patients who died during their hospital stay etc.); 4 questions are used to screen patients for appropriate questions and the last 7 questions are used to collect demographic features. (Giordano et al., 2010; Farley, Enguidanos & Coletti et al., 2014) About 3,900 hospitals nationally have HCAHPS data that are available and publicly reported; the availability of such useful information informs patients' decision of their choice of care and it also informs health care policy to address loopholes identified by the data. (Giordano et al., 2010) The table below shows the calculated survey of patients' experiences (HCAHPS) star rating for the University of Michigan Health System compared to the state of Michigan and U.S.

Table 2: Survey of Patients' Experiences for the University of Health Systems (10/1/17 – 9/30/18)

Patient survey summary star rating. *More stars are better.	University of Michigan Health System ★★★★☆	Michigan Average	Nation Average
Patients who reported that their nurses "Always" communicated well	84%	82%	81%
Patients who reported that their doctors "Always" communicated well	82%	80%	81%
Patients who reported that they "Always" received help as soon as they wanted	68%	73%	70%
Patients who reported that staff "Always" explained about medicines before giving it to them	62%	66%	66%
Patients who reported that their room and bathroom were "Always" clean	62%	75%	75%
Patients who reported that the area around their room was "Always" quiet at night	47%	60%	62%
Patients who reported that YES, they were given information about what to do during their recovery at home	90%	89%	87%
Patients who "Strongly Agree" they understood their	58%	54%	53%

care when they left the hospital			
Patients who gave their hospital a rating of 9 or 10 on a scale from 0 (lowest) to 10 (highest)	81%	74%	73%
Patients who reported YES, they would definitely recommend the hospital	85%	71%	72%

Source: (www.hospitalcompare.hhs.gov; http://www.hcahpsonline.org).

CORRELATION BETWEEN SATISFIED PATIENTS AND FAVORABLE HEALTH OUTCOMES

With patient satisfaction now widely used as health care quality metric, delivery of care has been modified to be patient- and family-centered. One of the striking definitions of patient-centered care as reported by Bechel (1998) in his dissertation was "the characteristics of patient-centered/focused care as an approach that strives to increase the interpersonal and technical quality of care, enhance the humanness of care, and eliminate inappropriate costs in care by: involving patients in treatment decisions and family members in care as well as increasing patients communication". Hence, the healthcare systems, to be inclusive of patients' experiences, allotted enormous resources and efforts to improve patient satisfaction as a means for quality improvement in healthcare deliver.

However, the question is does patients' perceptions of care really correlate with desired health outcomes or reflect the quality of care? Sheetz et al. (2014), in their study, found that there was no statistically significant relationship between patient experience and surgical outcomes (i.e. 30-day postoperative mortality and morbidity rates). More recently, a positive significant association was found between patient experience and 30-day readmission as well as postoperative surgical complications. In other words, patients that are highly satisfied with their care had few or no postoperative complications and are less likely to be readmitted after a 30-day period. (Lobo, Cleghorn & Elnahas et al., 2018) In a similar study, low mortality rate was significantly associated with patients' satisfaction of care however, length of stay and rates of readmission was not positively correlated with patients' satisfaction. (Kennedy et al., 2014)

Subsequently, a survey of patients with acute myocardial infarction showed that higher patient satisfaction of care was associated with compliance to care protocols and lower inpatient mortality risk. (Glickman, Boulding & Manary et al., 2010) As implied by Jha & colleagues (2008), hospitals with higher HCAHPS rating (i.e. higher patients' satisfaction) provided higher quality of clinical care compared to hospitals with lower ratings. Furthermore, in a nationally representative sample, Fenton et al. (2012) found high patient satisfaction to be associated with infrequent emergency department use but surprisingly, he found high patient satisfaction to be associated with high mortality rates. While some of these studies have found a positive or negative correlation between patients' satisfaction and health outcomes, a couple of other studies

have rather showed/implied no correlation between patient satisfaction of care, favorable health outcomes and improved quality of care. (Fisher, Wennberg & Stuke et al., 2003; Sequist, Schneider & Anastario et al., 2008)

CONSIDERATIONS OF ASSESSING PATIENT'S SATISFACTION MEASURES

Despite the great promises and possible benefits of incorporating patients' perspective of care into healthcare delivery; the inconsistencies of a positive relationship between patients' satisfaction of care, high care quality, and favorable health outcomes in the literature suggests that there is a long journey ahead to efficiently collect data on patients' experiences. As incentives or financial gains become increasingly tied to surveys of patients' experiences and/or satisfaction of care, the validity of patients' satisfaction as a quality measure in health care has also become questionable.

Some medical providers are of the opinions that patients' feedback on care cannot be relied on, which is caused by patients' lack of scientific and technical knowledge to effectively report medical care. Furthermore, these measures could be confounded by variables (for example: good food, appropriate visiting hours for family and friends, a feeling of being listened to, patients' health status, age – older patients are generally more satisfied with care and report fewer problems associated with care, socio-economic status – poorer patients typically have problems with mode of care thereby giving worse evaluations etc.) that does not necessarily correlate with the quality of care processes. In addition, high measures of patients' satisfaction of care could imply that providers are consenting to patients' requests for discretionary services (such as unnecessary orders for lab tests) that have no medical benefits. (Manary, Boulding, Staelin & Glickman, 2013; Fenton et al., 2012) Similarly, Sepucha & colleagues (2004), reported that patients' satisfaction could be a function of patients' expectations of what care should be rather than clinical outcomes or access to a great decision support. A patient with a preconceived expectation prior to accessing health care services would be blinded to the positive clinical outcomes despite receiving supportive interventions from the medical team and clear communication with medical providers.

Hence, the concept of patient-centeredness to improve health outcomes is a function of how well the patient is informed about medical terms and procedures to make clinical decisions for favorable health outcomes. Therefore, to evaluate well-informed patients in HCAHPS, data should be collected from thorough social processes like focus groups of patients and medical providers alike with goals focused on improving decision-specific knowledge, values for the salient outcomes, and choices for treatments alternatives. (Sepucha et al., 2004)

CONCLUSION

The use of patients' experience as a quality metric in health systems is typically justified by the fact that it has an element of delivering emphatic care to patients. Nonetheless, precautions should be taken when using patients' satisfaction of care as a quality measure for healthcare systems. This is because patients may not be satisfied with experiences of care due to unmet expectations despite favorable health outcomes and on the other hand, may be satisfied with care yet experience undesired health outcomes. Generally, despite the relationship between outcomes and satisfaction, patients' satisfaction is a combination of intricate factors that is beyond delivery of healthcare. More often, patients are more likely to focus on their current health status than the achieved improvement.

The probability of recall bias during data collection of patients' experiences could also invalidate the relationship between patient experience and favorable health outcomes. The negative association between patients' experiences and health outcomes reported by Fenton et al. (2012), could be attributed to the delay that existed between patients' experience measures and outcomes which was about 4 years after receiving care. Generally, the probability of recalling an experience or incidence accurately is low. Notwithstanding, timeliness of measurement is important, especially as stated by the protocol (48 hours – 6 weeks after receiving care); this could help to significantly reduce recall bias in data collection and analysis.

From the evidence gathered in the literature, I believe patient' experience is not a sufficient measure in itself to evaluate health outcomes and the overall quality of healthcare delivery. Nevertheless, the concept of patient-centeredness in healthcare delivery should be accepted and adopted by all medical providers and practitioners. A better healthcare delivery should be focused on improving the quality of health systems that is geared towards engaging patients in their care plans and protocols such as shared and informed decision making. However, because patient satisfaction measure is complicated in nature, it is expedient to really understand patients' perceptions of care and their engagement to ensure the delivery of patient-centered care.

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