

# Optimizing Patient-Reported Experiences for Cardiovascular Disease: Current Landscape and Future Opportunities

Victor Okunrintemi, MD, MPH<sup>a</sup>; Khurram Nasir, MD, MPH, MSc<sup>b,c</sup>

<sup>a</sup>EAST CAROLINA UNIVERSITY, GREENVILLE, NORTH CAROLINA; <sup>b</sup>HOUSTON METHODIST DEBAKEY HEART & VASCULAR CENTER, HOUSTON METHODIST HOSPITAL, HOUSTON, TEXAS; <sup>c</sup>YALE SCHOOL OF MEDICINE, NEW HAVEN, CONNECTICUT

**ABSTRACT:** Improving patient experience is a fundamental component of patient-centered care and one of the key strategies for improving health care quality, delivery, and outcomes. Several studies have described the association between improved patient experience and better health outcomes among individuals with cardiovascular disease. These findings are important given that cardiovascular disease is a leading cause of morbidity and mortality in the United States and globally. This review summarizes the findings on patient-reported health care experiences and discusses how optimizing these experiences may be a tool to improve health outcomes among individuals with cardiovascular disease.

## INTRODUCTION

Cardiovascular disease (CVD) is the leading cause of morbidity and mortality in the United States, and several measures have been implemented in the past few decades to improve health outcomes in patients, particularly in those with CVD. The National Quality Strategy identified patient-centered care as one of the fundamental strategies needed to improve health care quality, delivery, and outcomes.<sup>1</sup> In a broad context, patient-centered care is considered to be synonymous with patient experience.<sup>2</sup> The Beryl Institute currently defines patient experience as “the sum of all interactions, shaped by an organization’s culture, that influence patient perceptions across the continuum of care.”<sup>3</sup>

Although there is no single indicator to characterize this multidimensional concept of patient experience, scholars have used some of the matrices measured in the Consumer Assessment of Healthcare Providers and Systems survey and other similar tools to evaluate patient-reported experiences. The English National Health Service outlined some domains thought to be paramount to an optimal patient experience, including respect, communication, physical comfort, emotional support, and access to care.<sup>4</sup> Some of these parameters have also been used to assess physician performance and have had some financial impact, especially since patient-reported experiences have been included as a complementary value metric for patient care in various pay-for-performance programs.<sup>1</sup> In fact, shared decision making, which is one of the matrices discussed in this review as a component of patient-reported experience, is required for reimbursement for some cardiovascular therapies.

In recent years, there has been a growing interest in exploring relationships between patient-reported experiences and a range of health care processes and outcomes in chronic

conditions such as CVD. Optimal patient experience has been linked to improved health outcomes among patients and has been notably demonstrated among individuals with CVD.<sup>1</sup> In this review, we focus on the optimization of patient-reported experiences among individuals with CVD and how it relates to four major patient-centered care domains, including access to a health care provider, patient-provider communication, shared decision making, and overall patient satisfaction.

## ACCESS TO HEALTH CARE PROVIDERS

Health care access is not only a measure of health resource utilization but also describes the ease and convenience of accessing health care services as well as digital connectivity.<sup>5-11</sup> Optimizing health care access is a multifactorial construct that could have a favorable or negative impact on patient experience and perception of health care. Factors such as insufficient transport services, financial challenges, poor phone and internet connectivity, and paucity of health care specialists in rural areas influence an individual’s access to health care.<sup>12</sup> Improved access to clinicians has been shown to be associated with a reduction in the utilization of health care resources. In a large retrospective study of over 47,000 US adults from 2010 to 2013, participants who reported having optimal access to their clinicians were less likely to have two or more emergency room visits (OR 0.49, 95% CI 0.41-0.59) and inpatient hospitalizations (OR 0.66, 95% CI 0.51-0.86) compared with individuals who had poor access to their clinician.<sup>13</sup>

Patients, clinicians, and researchers identified some of the barriers to improving cardiovascular health, including poor health care access after regular hours, long wait times to see specialists, and lack of information, access, and referrals to cardiac rehabilitation programs.<sup>14,15</sup> Given the potential

association between better patient experience and improved cardiovascular outcomes, optimizing health care access among individuals with CVD could positively affect CVD morbidity and mortality. The use of e-health technology and more user-friendly patient-physician online portals may be one way to improve health care access and facilitate communication between patients and health care providers.

## PATIENT-PROVIDER COMMUNICATION

A vital component of clinical practice, patient-provider communication (PPC) has been described as the art and heart of medicine since it plays a central role in the quality of health care delivery and outcomes.<sup>16-18</sup> Effective PPC establishes a good interpersonal relationship between the patient and the clinician by building trust, ensuring adequate exchange of information between both parties, and including the patient in the decision-making process.<sup>16,19-21</sup> The key components of effective PPC include listening, showing respect, providing a clear explanation of the clinical picture, and spending enough time with the patient.<sup>1</sup>

In a study of a nationally representative sample of 6,810 individuals representing 18.3 million adults with atherosclerotic cardiovascular disease (ASCVD), patients with poor versus optimal PPC were more likely to report that they were not on a statin or aspirin, reported higher health resource utilization ( $\geq 2$  emergency room visits, OR 1.41; 95% CI, 1.09-1.81;  $\geq 2$  hospitalizations, OR 1.36; 95% CI, 1.04-1.79), and incurred an estimated \$1,243 (\$127-\$2,359) higher annual health care costs.<sup>1</sup> Conversely, effective PPC was associated with an improved perception of physical and mental health and better health outcomes among individuals with ASCVD.<sup>1</sup>

Some of the barriers to effective PPC include patient anxiety and fear, clinician work load and burn out, sociocultural differences, and unrealistic patient expectations.<sup>22,23</sup> Optimal PPC is more likely to improve patient satisfaction and promote an appropriate exchange of pertinent information between the patient and the physician, which in turn could enhance the productivity of a clinical encounter, increase the chances of reaching a more accurate diagnosis, and increase the likelihood of patient adherence to the management plan.

Some reports suggest that physician communication skills are thought to decline as they advance in their training, become highly specialized, and focus less on the holistic aspect of patient care.<sup>24</sup> However, establishing an effective interpersonal relationship with patients is paramount to all clinicians and not just to those who practice primary care. In fact, individuals with chronic medical conditions such as CVD and other comorbidities who require long-term follow-up and specialized

care may benefit even more from establishing effective PPC with their specialty care physician.

## SHARED DECISION MAKING

Shared decision making (SDM) is a joint process that allows patients to be fully involved in the decision-making process regarding their care. For this to occur, the physician must provide the patient with a full clinical picture that includes all necessary health information and every available treatment option based on the clinician's knowledge and expertise. All this is done while taking into consideration the patient's beliefs and personal values and working with them to thoroughly examine each treatment option; the goal is making a joint decision that reflects the patient's health care preferences rather than the physician being the primary decision maker.<sup>25</sup>

Some of the essential elements of SDM include: explaining all available therapeutic options to the patient, including risks and benefits of each option; assessing the patient's understanding of both the disease process and the available treatment strategies; having the patient weigh in on what therapeutic option they would prefer; and respecting the patient's choice in the context of their values and sociocultural beliefs.<sup>25-27</sup> Given the ongoing paradigm shift towards patient-centered care, more clinicians are accepting these elements of SDM. In fact, SDM is thought to be an evidence-based cornerstone of some cardiovascular therapies (eg, the Watchman device) and is recommended for individuals with nonvalvular atrial fibrillation prior to device implantation.<sup>28</sup> SDM is also considered before initiating statin therapy in individuals at high risk of ASCVD and before starting anticoagulation therapy in individuals with atrial fibrillation, who also have a high bleeding risk. However, ongoing research suggests that many clinicians do not routinely apply the elements of SDM into their clinical practice.<sup>29</sup>

In a multicenter randomized controlled trial that evaluated decisional conflict about choosing a prosthetic valve in patients undergoing elective aortic or mitral valve replacement, Korteland et al. developed a decision aid to help patients make a choice by individualizing risks and benefits of each option.<sup>30</sup> Although there was no difference in the primary outcome between the groups, the intervention arm displayed more knowledge, understanding, and mental preparedness and were less anxious compared with the control group.<sup>30</sup> The American College of Cardiology also created a decision tool to assist patients deciding between transcatheter aortic valve replacement or conservative symptom management.<sup>31</sup>

Some of the obstacles to routine use of the SDM metric include increased consultation time, the patient's literacy level, and the

severity and sensitivity of the patient's medical condition.<sup>32</sup> Some of the benefits are promotion of the interpersonal relationship between patient and clinicians, reducing unnecessary health resource utilization, and reducing health care expenditures.<sup>13,33</sup> Risk communication, an essential component of SDM, is important in primary and secondary prevention of CVD. This is vital to motivate adherence to medication and lifestyle changes to reduce the risk of strokes, heart attacks, and readmissions among high-risk individuals with and without CVD. Among individuals with ASCVD, optimal SDM has also been associated with increased likelihood of statin and aspirin use, fewer emergency room visits, lower health care expenditure, and improved perception of health and health-related quality of life.<sup>34</sup> There is a need for further studies testing practical tools and approaches for incorporating SDM into routine clinical practice for efficient CVD health care management.

#### PATIENT SATISFACTION

Although patient satisfaction is being used by many health systems as a metric to assess health care quality and performance and guide reimbursement, there is currently no universally acceptable definition for this concept. Patient satisfaction could be described as contentment with the quality of care received and the overall health care delivery process.<sup>13</sup> The Hospital Consumer Assessment of Healthcare Providers and Systems survey is one of the instruments used to evaluate measures of patient satisfaction in hospital settings. Although patient satisfaction has been associated with reduced health resource utilization, such as fewer emergency room visits,<sup>13,35</sup> it has also been associated with increased health care expenditure.<sup>13,36,37</sup> Empirical studies have suggested that higher patient satisfaction scores are associated with improved health outcomes among

CVD patients; lower readmission rates for acute myocardial infarction, heart failure, and stroke; and higher adherence to guideline-directed medical therapies.<sup>38,39</sup>

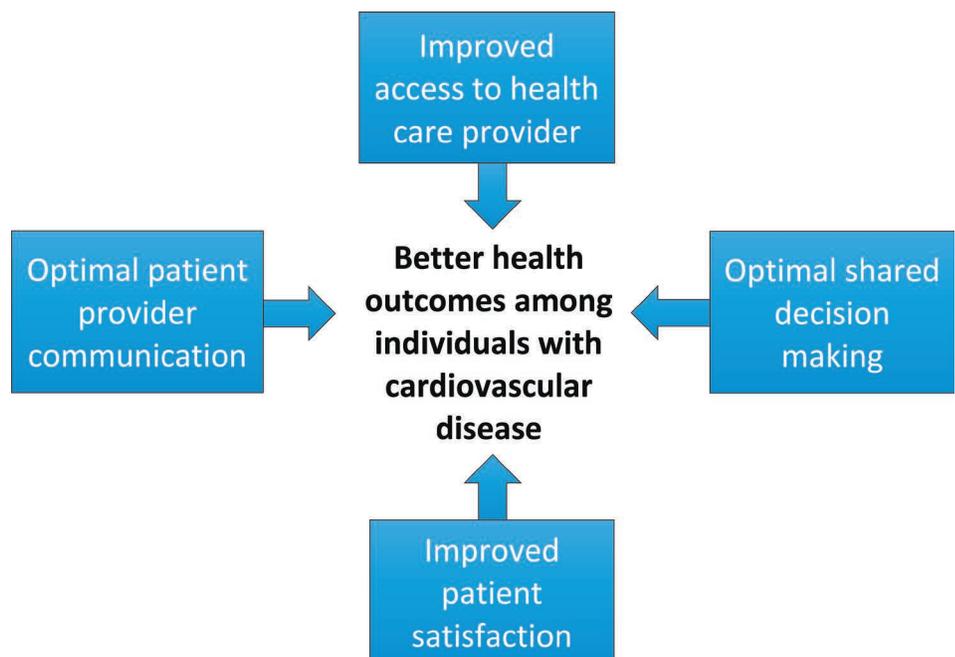
In a retrospective study from 2013 to 2015 involving outpatients of a pediatric cardiology practice, Allam et al. determined that a patient's rating of their health care provider's ability to explain problems and conditions in a way that was easy to understand was a key aspect of patient experience and a vital predictor of overall patient satisfaction ( $P < .001$ ).<sup>40</sup>

However, it is important to interpret patient satisfaction data with caution because this metric may be affected by an individual's insight and expectations, mental health status, the physician's prescription habit, and the hospital's reimbursement model. Although it is important for clinicians to personalize patients' experiences to improve patient satisfaction and, ultimately, health

outcomes, linking hospital reimbursement with patient satisfaction scores as an incentive to achieve an optimal patient experience carries its own risks. For example, clinicians may employ the excessive use of discretionary services in the pursuit of higher patient satisfaction scores, which in turn will increase the financial burden on the patient and the health care system overall.

#### SUMMARY

A premium patient experience has been associated with better health outcomes among individuals with CVD (Figure 1). Measures to optimize the patient experience and encourage active patient engagement in their health care—such as implementing user-friendly patient-physician online portals; incorporating “reminder checklists” of the vital elements of patient experience into the electronic health records system; and continuously educating clinicians, especially specialists, on the fundamentals and



*Figure 1.*

The components of patient experience and its association with health outcomes among individuals with cardiovascular disease.

benefits of optimizing patient experience—may encourage active patient engagement and improve health outcomes among this high-risk population. The use of eHealth and telemedicine has become increasingly important in the face of the coronavirus pandemic. A more efficient use of this platform could potentially improve patient experience by reducing wait times, eliminating the hassles encountered by some individuals to get to their clinic appointments, and enabling more frequent follow-up visits; it could also be promising in the early detection of arrhythmias and in management of chronic conditions such as hypertension, diabetes, and heart failure.

We hope these findings will encourage extensive deliberations among pertinent health care stakeholders to confirm results in additional cohorts. Furthermore, we hope they delineate clear insights as to whether or not improvement in patient experience can effectively improve health care efficiency and serve as an effective tool to gauge aspects of health provider performance in cardiovascular disease management.

#### KEY POINTS

- Premium patient experience has been associated with better health outcomes among individuals with cardiovascular disease.
- Some of the domains of patient experience that have been associated with improved health outcomes include improved access to health care providers, patient-provider communication, shared decision making, and overall patient satisfaction.
- Measures to optimize patient experience and encourage active patient engagement should be promoted as potential tools to improve health outcomes among individuals with cardiovascular disease.

#### Conflict of Interest Disclosure:

The authors have completed and submitted the *Methodist DeBakey Cardiovascular Journal* Conflict of Interest Statement and none were reported.

#### Keywords:

patient experience, shared decision making, patient-provider communication, patient satisfaction

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