Editor’s Perspective

Shared Decision Making
A Path Toward Improved Patient-Centered Outcomes

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A primary challenge to the American healthcare system is to improve quality by being more evidence based, cost-effective, and patient centered.1,2 The first 2 markers of quality are familiar to physicians and policy makers, wherein disease-specific performance measures and cost data are commonly used to gauge outcomes. The third quality parameter, patient-centered care, has gained increased awareness among the healthcare community but remains elusive to many. Patient-centered outcomes focus on patients’ experiences (eg, symptoms, quality of life) and preferences for these and other outcomes. Thus, the best outcome may be different for different individuals, depending on their priorities, values, and goals. For example, in assessing the outcome of implanting a defibrillator in an 80-year-old patient, we may need to look beyond 1-year mortality and ask whether the decision is consistent with the patient’s values concerning dying and acceptance of potential inappropriate shocks.3 In a patient-centered model, the focus is on high-quality decision making, stemming from the exchange of (1) balanced, evidence-based, disease-specific information; (2) presentation of treatment options and their inherent benefits and tradeoffs; (3) assessment of patient values, priorities, and goals; and (4) alignment of patient values with treatment decisions.4 This process of shared decision making (SDM) has the potential to advance patients’ desired wishes and to achieve better patient-centered outcomes while lowering the costs of care should patients choose less expensive treatment options.5,6

Decision aids are commonly used to facilitate SDM, conveying information about a particular disease and the risks and benefits associated with different treatment strategies, including no treatment at all.7 Decision aids may take the form of a Web-based tool, video, or pamphlet and may be administered in the hospital or office or even independently by patients before their visit. To date, >86 randomized trials have been conducted examining the effectiveness of decision aids to support SDM and have been tested for a range of diseases, including prostate cancer, osteoporosis, osteoarthritis, coronary artery disease, and atrial fibrillation.8–10 SDM has been demonstrated to result in greater patient knowledge, decisional satisfaction, and value-concordant decision making. SDM may additionally reduce regional variations in healthcare use and cost, thought to be driven by physician preferences and supply more than patient demand and outcomes.11,12 In a recent trial, Arterburn et al administered a decision aid to patients considering treatment options for hip or knee osteoarthritis. They found that patients exposed to the decision aid were less likely to choose surgery than patients receiving usual care without the decision aid, which was associated with a 12% to 21% lower cost.

In the field of cardiovascular medicine, SDM can help to improve care by aligning treatment with patients’ goals and values. Over the past decade, there have been incredible advancements, giving patients greater treatment options. For example, patients now have a choice among anticoagulants for atrial fibrillation; biventricular pacing and ventricular assist devices are options to potentially reduce symptom burden in patients with advanced heart failure; and transcatheter aortic valve replacement may soon be widely offered as an alternative to surgical intervention for aortic stenosis. These developments provide exciting opportunities to customize treatment strategies according to patients’ individualized risk:benefit ratio, values, and preferences. Moreover, as the baby-boomer generation ages, there is likely to be a greater demand for information and personalized treatment options. Cardiologists are in a phenomenal position to lead the rest of medicine in applying SDM in routine clinical practice. Circulation: Cardiovascular Quality and Outcomes is committed to publishing the science to support the adoption of SDM in clinical care.

Our journal has already published several articles evaluating SDM tools. For example, we recently published an evaluation of a tool to assist patients in choosing arterial access, radial versus femoral, for coronary angiography.13 Similarly, we published a study by Hess et althat tested the effectiveness of a decision aid designed to communicate risks and benefits of inpatient versus outpatient cardiac stress testing in patients presenting to the emergency department with chest pain and no biomarker elevations. Patients exposed to the decision aid were more likely to opt for outpatient stress testing and demonstrated greater knowledge and less decisional conflict than those not exposed to the tool. Importantly, by honoring patients’ preferences for a less expensive, outpatient workup, there were no differences in 30-day event rates. These examples illustrate the range of cardiovascular conditions and decisions in which SDM can be applied.

Given the import of SDM to the future of medicine, Circulation: Cardiovascular Quality and Outcomes hopes that future tools can be developed, tested, and reported within our pages. To assist researchers in designing studies, and
clinicians in interpreting their results, it is important to have a framework to judge the effectiveness of a novel SDM tool. A conceptual model that illuminates the roles and goals of the participants can help to quantify the quality of a shared decision. The Figure diagrammatically represents the 2 principal participants in medical decision making, patients and physicians, and their roles. Borrowing Donabedian’s structure-process-outcome framework for assessing quality, the structure of SDM can be the tools and training of staff to support SDM, and the processes and outcomes of SDM, described below, can be directly measured.14

According to this framework, the process of SDM involves bidirectional knowledge transfer. Providers convey knowledge to patients about the risks and benefits of alternative treatments (eg, bare metal versus drug-eluting stents in percutaneous coronary intervention), and patients inform their providers about their personal preferences and values for different outcomes (eg, avoiding a repeat percutaneous coronary intervention versus the costs and bleeding risks of dual antiplatelet therapy should a drug-eluting stent be chosen). Querying patients about their knowledge of treatment risks and benefits can quantify the effectiveness of risk communication and ensure that the patient has the information needed to make an informed choice. Similarly, by independently measuring patients’ values and preferences (eg, the relative importance of avoiding a repeat procedure, minimizing medication use, avoiding bleeding and bruising) and physicians’ perceptions of the patient’s values and preferences, researchers can compare the concordance between the two, assessing the patient’s and physician’s receipt of information from the other. To further confirm that a dialog about the treatment options occurred, researchers can ask patients about the decision-making process itself: “Did you discuss treatment options with your provider?”

The outcomes of SDM can be assessed from 3 observations.4 The first is an assessment of the quality of the decisional process, which can be assessed by querying patients or both patients and providers using a tool such as a decision support analysis tool.15 The second outcome of SDM is the decisional conflict experienced by the patient and whether or not the ultimate treatment (eg, stent choice) is compatible with their preferences.7 Finally, whether the treatment ultimately administered is clinically logical given the patients’ preferences can define the success of the SDM process. There are several tools available in the published literature such as those supported by the Ottawa Project on SDM.16

Once a decision aid or process has been created to support SDM, the next challenge is implementation. Unfortunately, SDM has yet to move meaningfully beyond the research environment into routine clinical practice. There are several challenges to implementation.5 Physicians may be reluctant to embrace SDM if they feel strongly that a certain treatment option for a patient is beneficial.7 Moreover, physicians may be concerned that presenting probabilities through the use of decision aids will feed into patient fears of rare adverse events or engender skepticism about likelihood of benefit.23 Physicians may also find a decision aid to be disruptive to their clinical throughput, taking too much time and not yet reimbursable.17

Of note, the Affordable Care Act includes provisions for reimbursing SDM, although the details have not been published. Finally, clinicians have traditionally not received much training in the use, or even value, of SDM, making changes in current practice difficult.18,19 An additional barrier is that some patients may not wish to participate in SDM and others may not even know it is an option and they do not ask detailed questions about alternative treatment strategies.20–22 These situations fit into the paradigm that the “doctor knows best,” reflecting a preference for a strong physician recommendation as opposed to negotiating uncertainty and tradeoffs. Finally, research needs to consider how best to incorporate decision aids into healthcare practice, being sensitive to time constraints and the common need for patients to discuss their decision with family and caregivers. Despite these obstacles, SDM offers a path toward more patient-centered care and greater achievement of optimal patient outcomes. But more work needs to be done. Next year, Circulation: Cardiovascular Quality and Outcomes will begin publishing a series of articles describing the state of the science in SDM, including the history of and theory behind SDM, best practices for communicating risk, tools to evaluate its effectiveness, and implications for cardiology and future policy. We look forward to promoting the best science in the field so that the promise of personalized medicine can be truly realized.

Disclosures

None.

References


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