How to Link Outcomes Data to Quality Initiatives in Plastic Surgery?

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KEYWORDS

- Quality of care • Health care policy • Patient safety

KEY POINTS

- The diversity of plastic surgery creates a unique and challenging opportunity to develop quality initiatives.
- Close attention to the principles of innovation dissemination can improve the adoption of quality initiatives.
- Innovative research with rigorous methodology is the cornerstone of developing quality initiatives that ensure patient safety and surgical quality.

OVERVIEW: THE EVOLUTION OF THE QUALITY OF CARE MOVEMENT

In recent decades, the accelerating cost of health care has sparked scrutiny of the quality of medical and surgical care delivered in the United States. For example, in the 1990s, evidence-based medicine (EBM) evolved to integrate clinical expertise, research evidence, and patient preferences to create the most appropriate evidence for clinical decision making.[1] In 1996, Sackett and colleagues[2] defined EBM as "the conscientious and judicious use of current best evidence from clinical care research in the management of individual patients.'' Furthermore, in 1999 and 2001, the Institute of Medicine published 2 landmark reports, "To Err is Human: Building a Safer Health System" and "Crossing the Quality Chiasm," which highlighted disparities in health care throughout the United States and the financial and societal implications of these variations.[3,4] These efforts underscored a national interest in using high-quality data to drive quality improvement efforts and create equal and accessible health care for all Americans.

Variation in health care may signal overuse, underuse, or misuse of health care resources, depending on the clinical context. Understanding the mechanisms that underlie variation has been the focus of a large proportion of health care policy and research.[5,6] For example, when scientific knowledge is unused or inadequately disseminated, variation may occur because of the inappropriate use of therapies and medical tests. Therefore, a quality initiative program can be designed to improve the process of delivering health care by using scientific evidence to identify and minimize variation, develop relevant benchmarks, and create strategies to achieve these

goals. Quality initiatives have been developed by federal and professional organizations to measure physician and hospital performance and adherence to recommended guidelines. For example, the US Centers for Medicare & Medicaid Services (CMS) collaborated with the Hospital Quality Alliance and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) to make measures of hospital performance publically available through the Hospital Compare program.[7] This program has resulted in improvement in patient outcomes, such as declines in mortality, hospital length of stay, and readmission rates. Therefore, developing effective quality initiative programs can measurably enhance the efficiency and quality of health care in the United States.

CREATING AND IMPLEMENTING QUALITY INITIATIVES

Although disparities and variations in care have been widely studied, the development and implementation of effective quality initiatives is challenging and often elusive. However, the process of information diffusion throughout a community has been well described in the social sciences, and the principles can be applied to health care. As outlined by Berwick[8] in 2003, the factors that influence dissemination can be categorized in the following way: perceptions of the initiative, characteristics of the community, and characteristics of the environment (**Table 1**).

Perception of the Initiative

For a quality initiative to be adopted, physicians, patients, and policy makers must have full understanding of the risks, benefits, and consequences of the initiative. For example, many aesthetic and reconstructive procedures can be safely performed in office-based ambulatory care facilities. However, in response to several patient deaths in office-based facilities, more stringent regulations were introduced by state and federal licensure committees to ensure patient safety.[9] Despite the increased cost and restrictions of these accreditation procedures, most outpatient plastic surgery procedures continue to be performed in office-based settings, and surgeons have recognized the need for more rigorous safety policies.[10–12] Quality initiatives must also be perceived as congruent with the needs of the population. For example, in 2011, the US Food and Drug Administration recognized the potential association between breast implants and anaplastic large cell lymphoma (ALCL) among patients who present with late periprosthetic seromas. In response to this concern, the American Society of Plastic Surgeons (ASPS) created a prospective registry of patients presenting with ALCL.[13,14] Given the vast number of women with breast implants for augmentation or reconstruction, this registry can define the natural history of periprosthetic seromas, elucidate risk factors for ALCL, and better inform women of the long-term risks

Table 1
Factors influencing the dissemination of innovation in a community

Factor	Involved Participants	Examples	Strategies
Perceptions	Clinicians Patients Policy makers Payers	Benefit Risk Costs Consequences (short and long term; positive and negative)	Education Transparent communication
Population	Initiative developers, leaders, executors, adopters of the initiative	Administrators, researchers, academic and community physicians	Foster early innovators, communicate with skeptics, facilitate uptake across most
Context	Leadership style Organizational structure and stability	Hierarchical structure Financial stability Ancillary support Patient population	Financial incentives Creating leadership roles within the organizational structure
Initiative	Compatibility Complexity Testability Observability	Community needs Simplicity of the initiative Ability to assess before and after effects Clarity of outcomes	Periodic efficiency and effectiveness checks Simple, easily implemented initiatives