

Op-Ed

“Evaluating the Quality of Medical Care”: Donabedian’s Classic Article 50 Years Later

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FIFTY YEARS AGO, *THE MILBANK QUARTERLY* PUBLISHED WHAT WAS to become its most frequently cited article: Avedis Donabedian’s “Evaluating the Quality of Medical Care” (5,784 citations through 2015).¹ It is a masterpiece. With his typical precision and thoroughness, Donabedian covered the entire field of quality measurement as it was understood at the time. To this day, his subheadings would compose an adequate framework for a course syllabus on measuring the performance of health care.

Interpreters often oversimplify Donabedian’s conceptualization. In 2015, for example, a report issued by the National Academy of Medicine described Donabedian’s approach in entirely technocratic terms as a “model of a health system with inputs, processes, and outcomes.”²(p10) But Donabedian was far from a reductionist. In 1998, he told an oral historian that he had “no solutions . . . but everywhere in my work is the admonition, implicit and explicit, [that] this is a good way of thinking about these problems” (See Table 1). Three years later, he said that “systems . . . are enabling mechanisms only. It is the ethical dimension of individuals that is essential to a system’s success.” Toward the end of his life, Donabedian recognized, and worried about, the ascendancy of what he called an “industrial model” of quality improvement. In an interview just before his death, he famously avowed, “The secret of quality is love. You have to love your patient, you have to love your profession, you have to love your God.”

The authors of the other articles in the same June 1966 supplement issue of *The Milbank Quarterly* were, like Donabedian, pioneers in the emerging field of health services research. The then recently created Health Services Research Study Section of the United States Public Health Service had commissioned the articles to assess the past and project the future of its field.

Table 1. Selected Publications by and About Avedis Donabedian

Articles by Donabedian

- Donabedian A. Evaluating the quality of medical care. *Milbank Memorial Fund Q.* 1966;44(3)(suppl):166-206. Reprinted in *Milbank Q.* 2005;83(4):691-729.
- Wyszewianski L, Wheeler J, Donabedian A. Market-oriented cost containment strategies and quality of care. *Milbank Memorial Fund Q Health Soc.* 1982;60(4):518-550.
- Donabedian A. The epidemiology of quality. *Inquiry.* 1985;22(3):282-292.
- Donabedian A. Twenty years of research on the quality of medical care: 1964-1984. *Eval Health Prof.* 1985;8(3):243-265.
- Donabedian A. The end results of health care: Ernest Codman's contribution to quality assessment and beyond. *Milbank Q.* 1989;67(2):233-256.

Books by Donabedian

- Donabedian A. *The Definition of Quality and Approaches to its Assessment.* Ann Arbor, MI: Health Administration Press; 1980.
- Donabedian A. *The Criteria and Standards of Quality.* Ann Arbor, MI: Health Administration Press; 1982.
- Donabedian A. *The Methods and Findings of Quality Assessment and Monitoring: An Illustrated Analysis.* Ann Arbor, MI: Health Administration Press; 1985.
- Donabedian A. *An Introduction to Quality Assurance in Health Care.* New York, NY: Oxford University Press; 2002.

Interviews With Donabedian

- Berkowitz E. Interview with Avedis Donabedian, April 16, 1998. Bethesda, MD: History of Health Services Research Project; National Library of Medicine.
- Baker R. Avedis Donabedian: an interview. *Qual Health Care.* 1993;2(1):40-46.
- Mullan F. Interview. A founder of quality assessment. *Health Aff.* 2001;20(1):137-141.
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Donabedian applied to “standards of quality” a commitment to objective science that he shared with the other authors, who represented a variety of disciplines. For them, improving health services required “greater neutrality and detachment” than previous research. They challenged colleagues who, as Donabedian wrote, conducted research with

the “zeal and values of the social reformer,” such as researchers-ideologues whose main agenda was not actually research but rather advocacy for universal coverage or who claimed that physicians’ clinical and financial autonomy was a prerequisite for the quality of care.

Unlike these social or political campaigners, Donabedian evinced deep faith in logic, evidence, and scientific inquiry. He synthesized his research and teaching on methods of measurement and analysis, with unexcelled scholarly discipline, in 3 volumes that together may be his magnum opus: *The Definition of Quality and Approaches to its Assessment* (1980), *The Criteria and Standards of Quality* (1982), and *The Methods and Findings of Quality Assessment and Monitoring: An Illustrated Analysis* (1985). Although methodology for measuring structure, process, and outcome (the “trinity” that Donabedian introduced in his seminal 1966 article in *The Milbank Quarterly*) was a major source of his reputation, his equally important contribution was prioritizing governance and management, supported by measurement, as determining causes of the effectiveness and efficiency of health services.

Donabedian addressed methodology and governance during a professional career that began in 1948 at the American University of Beirut and ended with his death in 2000, when he was professor emeritus at the University of Michigan. He linked these issues because, as he and colleagues wrote in 1982 in an article about “market-oriented cost containment,” “a constant vigilant watch over quality” is essential however care is organized and managed. In a book published posthumously in 2002, he made the linkage even more explicit by describing 3 types of efficiency: “clinical,” “production” (or “managerial”), and “distributional” (which included attention to costs).

Although Donabedian never synthesized his writings on governance and management, he regularly returned to these themes. In 1985, for instance, he described as a “notable advance” the “use of decision analysis to identify optimal strategies of care.” These included the “introduction of patient preferences and monetary cost in the specification of such strategies and the use of decisional algorithms to portray the criteria of quality.”

That same year he proposed a conceptual framework for an “epidemiology of quality” that would assess populations of providers and clients using “time, place and person,” the “traditional triad of descriptive epidemiology.” He found that “certain attributes of providers can be used to indicate that good quality can be delivered.” Moreover,

he wrote, governance matters to measuring and improving quality for populations because “structural attributes [how and by whom care is delivered] become indirect measures of the quality of care.”

Donabedian made what may be his most explicit statement of the centrality of governance and management to quality in a 1989 article in *The Milbank Quarterly*. According to Donabedian, Ernest Codman’s contribution to quality assessment in the early decades of the 20th century was his focus on “the end results of health care.” Codman wanted to measure end results, as Donabedian said he also did, to enhance “accountability” within organizations that provided health services as well as to the “public.” Codman was so angry about what he saw as flawed governance, moreover, that he characterized charitable hospitals as “combinations in the restraint of trade” that should be exposed to market competition.

One of us (Berwick), commenting on that article in the same issue of the journal, wrote that the priority of measuring quality should not be Codman’s recommended “single-minded focus on end results” but rather a “more subtle interplay among structure, process and outcome” that, as Codman exemplified, recognized the importance of “distinguish[ing] . . . the loci of responsibility for decision making and care that produces health outcomes.”³

Donabedian’s body of work remains significant for what is today an energetic international health care quality movement. The organizing concepts of structure, process, and outcome remain central to measuring and improving quality. No less important has been his insistence that research on quality and the use of findings from that research should emphasize measurement, analysis, management, and governance.

Through the lens of today, at least 3 gaps seem evident in Donabedian’s work. First, the current emphasis on “patient-centeredness” (or “person-centeredness”)—a shift of power that is fundamental to both the definition and the pursuit of quality—goes well beyond Donabedian’s interest in decision analysis. Second, Donabedian could not have anticipated the new information age and its profound impact on both risks and possibilities for care and health.

Third, now we know, as Donabedian could only glimpse, that we cannot achieve real excellence without seeing and acting upon health care as a system. That raises, beyond anything Donabedian really anticipated, the value of better scientific understanding of health care as a system, of the importance of the continual design and redesign of processes of care,

and of the crucial role of executives, clinical leaders, boards of trustees, and regulators in creating the culture and supports that allow continual improvement and innovation to thrive.

But, Donabedian was remarkably prescient. In the final lines of the article we are celebrating here, he wrote: "... [E]mphasis must be shifted from preoccupation with evaluating quality to concentration on understanding the medical care process itself." Fifty years later, our colleagues in health care quality management could hardly ask for a better, clearer charter as his legacy.

References

1. Donabedian A. Evaluating the quality of medical care. *Milbank Memorial Fund Q.* 1966;44(3)(suppl):166-206. Reprinted in *Milbank Q.* 2005;83(4):691-729.
2. National Academies of Sciences, Engineering, and Medicine. *Improving Quality of Care in Low- and Middle-Income Countries: Workshop Summary.* Washington, DC: National Academies Press; 2015. doi:10.17226/21736.
3. Berwick D. E.A. Codman and the rhetoric of battle: a commentary. *Milbank Q.* 1989;67(2):262-267.

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