AMA Journal of Ethics®

November 2017, Volume 19, Number 11: 1125-1131

POLICY FORUM

Using Principles of Co-Production to Improve Patient Care and Enhance Value

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Abstract

Unlike goods, which are concrete and easily quantified, services are intangible processes that are produced and consumed concurrently. Health care is a service that can encourage optimal health outcomes only through meaningful, collaborative partnerships between patients and clinicians. Co-production of health services can be used as a means to rethink how health care is delivered not only in the context of face-to-face encounters in which the benefits of working together are obvious, but also in designing systems that can improve patient care and enhance value.

Introduction

The concept of co-production was introduced in the 1960s as the United States shifted from an industrial economy focused on the production of goods (e.g., manufacturing) to a service economy (e.g., retail and banking) in which consumers and producers worked together to create value. Co-production occurs when consumers are engaged in the development of a service or product, thereby helping to ensure quality and enhance value [1]. Value co-production occurs in particular when consumers are able to personalize their experience while using an organization's service and in return undertake specific tasks needed by the organization [2]. This process requires active collaboration by consumers and producers to create value [3]. A familiar example of a good being transformed into a dynamic, co-produced service is the manner in which ride-hailing services such as Uber or Lyft have used personal automobiles and mobile devices to revolutionize the way people travel. Users of such ride-hailing services can travel more quickly and efficiently while the companies themselves generate significant revenue.

Health care systems are sometimes viewed as a producer of goods, which in this paper we delimit to health outcomes. It is readily apparent, however, that health outcomes are not simply created by health care professionals or hospitals but are contingent upon the complex interplay between clinicians, patients, and health care systems. For example, reduction in colon cancer mortality via a screening program requires health systems willing to provide financial and logistical support, knowledgeable clinicians versed in the risks and benefits of available screening modalities, and engaged patients empowered to

convey their preferences, with the result that a shared decision can be agreed upon and implemented. The building blocks of value co-production include transparency, dialogue, access to collaborative patient-clinician relationships, and an understanding of the balance of benefits and harms of proposed health interventions [4]. Co-production of value and the collaborative approach it requires can be used as a means to rethink how health care is delivered not only in the context of face-to-face encounters where the benefits of a collaborative approach are clear, but also in designing systems that can improve care and enhance value. Here we explore the concept of value co-production applied to health care systems and the shift in medical culture necessary to implement it. We also highlight the importance of measuring the success of co-production through health care metrics.

The Benefits of Co-Producing Value

Co-producing value in health care starts from the fact that patients and clinicians exist within a larger system that can promote or impede progress toward optimal care. Batalden et al. have proposed a theoretical framework for co-production wherein "patients and professionals interact as participants within a healthcare system in society" [5]. At the center of this framework are clinicians and patients; clinicians solicit patients' priorities and values in order that patients can partake in clinical decisions whenever possible.

The existence of meaningful partnerships wherein patients and clinicians work together is ideal for several reasons. Engaging patients in their own care can promote increased confidence and willingness to take control of their health, which ultimately can lead to healthier behaviors and improved outcomes. For example, among patients with diabetes followed over six months, those who scored higher on a measure of confidence in managing health-related tasks were more likely to perform foot checks, exercise regularly, and receive recommended eye examinations [6]. In addition, more engaged patients consistently report more positive experiences including higher-quality interactions with their clinicians and fewer problems coordinating their care [7]. In a systematic review of quality improvement literature assessing patients' engagement in their own care—for example, through patient forums and patient representation at practice planning meetings—specific changes attributed to enhanced engagement included improvements in access to care (e.g., extended clinic hours) and simplified appointment procedures [8]. It is evident that engaging patients in their own care could have benefits that extend beyond the individual patient. Health systems could also benefit by revising existing protocols on the basis of patient feedback. For example, improving access via online scheduling applications could allow health systems to utilize existing staff more efficiently.

A collaborative approach to care that recognizes clinicians as experts on medical science and patients as experts on their own values and preferences can be cultivated in several

ways. For example, advisory committees that include clinicians and patients can be assembled to discuss patient concerns in the community, such as increased flexibility in hospital visiting hours. Such opportunities for stakeholders to come together in order to brainstorm and implement new policies facilitate open communication and can create space to forge trusting relationships [9]. Creating this space allows both clinicians and patients to address their needs, and ultimately both parties can benefit from the implemented change. By actively engaging patients in every step of the clinical process, we can consider new methods to improve care.

When involving patients in planning and implementation of new health care policies, it is important that patients from diverse communities and backgrounds be represented. Just as the National Institutes of Health has now mandated that research should be done with patients from diverse populations [10], health care organizations should follow this principle within their institutions. Patients of all backgrounds should partake in co-producing health care policies and changing services for their communities. Ensuring that a representative sample of patient and clinician voices is heard is essential in creating an open, collaborative culture [10]. Finding common ground among both parties can help create the foundation from which to work, with both patients and clinicians involved in co-producing strategic planning within health care organizations.

Changing the Culture of Health Care Delivery

It might not be easy to change the culture of health care delivery to better promote collaboration between patients and clinicians, but such a shift is essential. Viewing patients not as "users and choosers" but as "makers and shapers" allows for planning and implementing new policies that can potentially lead to better health outcomes and patient experiences [11]. In addition, viewing clinicians as providers of services rather than mere goods is a needed conceptual shift in traditional medical culture. Educating clinicians and patients on the merits of co-production is one way to get started. Patient advocacy organizations and insurers could encourage patients to be more involved with their care, reminding them that their perspective matters and is integral in developing individualized plans of care. Patients coming prepared to clinic appointments to discuss key concerns and goals for the visit, and thus becoming more active participants in their care, can ensure that important issues are prioritized accordingly and managed efficiently. Although all clinicians intuitively know the importance of listening to patients, this fundamental detail can be forgotten in the often hectic pace of patient care. To promote the central role that listening plays not only in accurate diagnosis but also in matching health interventions to the unique goals and preferences of patients, professional medical societies could launch awareness campaigns with their members and society at large akin to what has taken place with the Choosing Wisely® Initiative and the high-value care initiative of the American College of Physicians [12, 13].

Through the lens of co-production, we can also rethink traditional models of care. As an example, for common low-risk conditions such as upper respiratory infections or acute low-back pain, patients could interact asynchronously with online, scripted templates that could then be reviewed and acted upon by clinical staff [14]. Such arrangements could reduce demand for face-to-face visits, thus increasing access for patients who need them most, such as those requiring complex symptom management or end-of-life care. Improving efficiency with the assistance of health information technologies could also lead to reductions in cost, particularly for health systems that are less reliant on traditional fee-for-service payment models.

Good health outcomes also depend on factors outside the traditional clinical setting where opportunities exist to change existing culture. Community-based roundtable discussions with patients could uncover new opportunities for co-production as health care systems aim to be more lean and patient-centered. Organizations that encourage patients to discuss preferences for their own care with family, friends, and health care professionals can help tailor interventions to individual patients. For example, the Baby Boomers for Balanced Health Care project in Minnesota encourages and empowers community members to discuss matters that are important to them—including overuse of health services—with their physicians and helps them engage in conversations about end-of-life preferences [15]. Grassroots organizations comprising a broad range of stakeholders, such as the Right Care Alliance, can help reimagine patient-centered care through advocacy efforts aimed at promoting evidence-based care that is affordable, equitable, and tailored to individual patients [16].

Measuring Success of Co-Production Initiatives

Patient surveys and quality metrics can be important tools in persuading stakeholders that ongoing co-production efforts are worthwhile [17]. Monitoring the impact of co-production and nourishing sustainable co-production initiatives, however, will require persistence and creativity.

Patient surveys could ask about perceptions of "being listened to" and clinicians could be incentivized to emphasize this important skill. Clinician incentives could include financial remuneration on the basis of patient surveys that address how well they listened and attended to the patient's needs or dedicated training for clinicians supported by health systems. Patient focus groups with frontline clinicians could also be employed by health systems to uncover barriers to high-value care and opportunities for meaningful quality improvement activities. Quality metrics could focus more explicitly on evidence-driven interventions demonstrated to improve patient-oriented outcomes such as aspirin use in patients with cerebrovascular disease or statin use after myocardial infarction [18]. Metrics could also be used to assess the overuse of services when harms are likely to outweigh benefits, such as Pap smears after age 65 and overly aggressive diabetes and blood pressure control in elderly patients [19]. When clinicians and patients value the

metrics by which quality is being assessed, buy-in and satisfaction are likely to be enhanced. Since the benefits of reducing the frequency of certain health services might not be intuitive, clinicians should communicate to patients how avoiding low-value interventions can reduce both downstream physical or emotional harms and out-of-pocket health-related expenditures. In this way, patients are likely to have more confidence that the care they ultimately receive is value added.

Other health related metrics—such as reductions in out-of-pocket expenditures for patients, better patient understanding of disease and treatment processes, improved access to clinic appointments, and greater satisfaction of clinicians and patients—can be developed and used to assess the effects of co-production efforts. Evidence has shown, for example, that patient-centered management in the primary care setting can reduce subspecialty referrals and diagnostic tests, thus decreasing financial and opportunity costs for the patient while improving access at the system level for those who need subspecialty consultation the most [20, 21]. Although more evidence is needed regarding the effects of co-production on patient satisfaction and costs of care over time, creating a structure that allows and encourages patients to be active participants is an important step toward optimal care.

Conclusion

Although the concept of co-production is not new, applying its basic principles to health system redesign is an exciting opportunity to examine and implement new ways to improve care. In order for co-productive processes to thrive, patients and health care professionals must be looked at differently. Patients must be viewed less as consumers and more as contributing partners in their care. Health care professionals should be recognized for what they are: as providers of services that can be shaped and improved by ongoing feedback from stakeholders and that can ultimately lead to optimal outcomes rather than as providers of goods that are the outcomes themselves. By creating new opportunities for clinicians and patients to work together and by providing incentives for clinicians, patients, systems, and payers, meaningful collaboration in system redesign can result in improved health outcomes and proceed in a truly patient-centered manner.

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ISSN 2376-6980