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Simple Rules That Guide Generalist and Specialist Care

Rebecca S. Etz, PhD; William L. Miller, MD, MA; Kurt C. Stange, MD, PhD

ABSTRACT: The sometimes-paradoxical emergent behavior of complex systems may be explained by the interaction of simple rules. The paradox of primary care—that systems based on primary care have healthier populations, fewer health inequities, lower health care expenditures, and better system-level evidence-based disease care, despite less evidence-based care for individual diseases—may be explained by the iterative interaction among three simple rules that describe the generalist approach: (1) Recognize a broad range of problems/opportunities; (2) Prioritize attention and action with the intent of promoting health, healing, and connection; and (3) Personalize care based on the particulars of the individual or family in their local context. These are complemented by three simple rules for specialist care that represent current approaches to quality and health care system improvement: (1) Identify and classify disease for management; (2) Interpret through specialized knowledge; (3) Generate and carry out a management plan. Health care systems that support the enactment of the simple rules of the generalist approach are likely to have more effective primary and specialty care, and greater population health, equity, quality, and sustainable cost.

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A Paradox

Primary care, and its fullest manifestation as robust family medicine practice, is not simple. Integrating care for whole people and families may be the most complex task in health care,¹ even if some of the entrée points involve seemingly simple tasks such as caring for self-limited or undifferentiated illness,² identifying teachable moments for providing preventive services,³ or helping people to manage living with multiple chronic conditions.^{4,6}

Yet, in contrast to the whole-person focus that is its essence, primary care often is conceptualized, measured, and incentivized as merely the sum of many simple parts of care that can be well-captured by

narrowly-focused, evidence-based guidelines⁷ that are based on highly-selected populations.⁸⁻¹¹ Considerable investment and effort has gone into trying to incentivize and help primary care improve its disease-specific care, which most research finds to be less conforming to evidence-based guidelines than care provided by specialists in those diseases.^{12,13} However, incentivizing quality of care for the disease-specific parts of primary care has not yielded the hoped-for results.^{11,14,15}

The paradox of primary care is that, despite providing less evidence-based care for individual diseases, systems based on primary care have healthier populations, less health inequities, lower health care

expenditure, and better system-level, evidence-based disease care.¹⁶

Apparently there are emergent properties of primary care in which whole-person care is more than the sum of the parts of disease-specific care, and that provide added value to patients and populations.⁷ The purpose of this article is to explore how these emergent properties of primary care—manifested in the craft of generalist practice—might be understood, so that they can be supported, and how we might avoid the unintended consequence of fragmenting and reducing the whole of primary care by organizing around, incentivizing, and supporting only its component parts.^{11,17}

A Complexity Lens May Help

Complex systems, in which nonlinear interactions result in hard-to-anticipate emergent properties,¹⁸ are an apt description of the generalist craft of primary care.¹⁹⁻²¹ One of the most appealing (and most misunderstood) principles of complexity science

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is that sometimes the behavior of complex systems can be described by simple rules.^{20,22,23} For example, the marvelously complex flocking behavior of birds can be produced by three simple rules:²⁴

1. Align: line up with those close by;
2. Cohere: steer toward the emerging center mass of those around you;
3. Separate: seek to be equidistant from your neighbors so you don't collide.

Simple Rules for Specialist Care

The current conceptualization, organization, and measurement of health care is well described by the three simple rules of specialty care that work together in a fairly linear fashion:

- Identify and classify disease for management;
- Interpret through specialized knowledge;
- Generate and carry out a management plan.

Specialists are concerned primarily with identifying whether the patient has the disease(s) in which they are expert, and then applying that expertise in a focused way to diagnose and treat the disease of interest. This is a godsend for patients for whom particular knowledge or technical skill, developed by repeated focus on one thing, is needed. However, the unfettered application of specialist rules is less effective, more expensive, and potentially dangerous if applied unselectively without the contextualizing influence of generalists applying the generalist rules.²⁵ And the application of specialist rules to the whole system, and in particular to primary care, is disastrous in leading to care that is fragmented, high cost, and low value.^{1,23,26}

Three Simple Rules for the Complexity of Primary Care

The emergent properties of primary care are generated by the interaction, over time, among three simple

rules that characterize the way of the generalist:

1. Recognize a broad range of problems/opportunities;
2. Prioritize attention and action with the intent of promoting health, healing, and connection;
3. Personalize care based on the particulars of the individual or family in their local context.

These rules work together as a set of linked feedback loops.

Recognizing requires foraging for salient information based on a comprehensive generalist perspective—teachable moments, early, often undifferentiated clues, risks and opportunities—in which any information potentially helpful to advancing health, healing, or relationship is relevant.^{2,27-30}

Prioritizing may be the most underrecognized and unique function of primary care within the health care enterprise.^{31,32} It begins with the broad, inclusive generalist perspective, and requires sorting, ranking, and negotiating what is most important between the different experiential knowing and expertise of the patient, and that of the clinician, to identify what action has the greatest potential to advance health, healing, and connection.^{33,34}

Personalizing care involves moving from the statistical generalities of evidence-based medicine to the particulars of this person or family in this particular moment and place and context. There are many particular moments within even a brief primary care encounter. And often, there are many encounters over time.^{28,34-38}

These three simple rules interact in a nonlinear and highly iterative manner within and across encounters.³⁹⁻⁴² They operate over and over again: (1) as new information re-frames what problems or opportunities are recognized as salient; (2) as what is most important continually changes or is reinforced by each new recognition, hypotheses develop around what might be most useful in this encounter; (3) as the hypotheses are tried out with the intent

of promoting some combination of health, healing, and/or connection. The cumulative effect of actualizing these rules is an investment in a relationship bank that can be drawn upon with interest during challenging moments in the health and lives of individuals, families, and communities.^{39,43,44}

For example, a patient brings his grandson in for ear pain, fever, and runny nose. Their family physician *recognizes* the likelihood of an ear infection and after examination, makes that diagnosis. She *prioritizes* treating the acute illness, and *personalizes* care by prescribing a second-line antibiotic that only has to be given once a day, saving the family the hassle of taking the first-line antibiotic to and from day care. The physician also *recognizes* a teachable moment, and mentions to the grandfather, with whom she had long ago reached a truce about not nagging about his smoking, that having a smoker in the house doubles the risk of a child getting an ear infection. With this new, *personalized* motivation, they discuss a smoking cessation plan. This visit, still taking less than 10 minutes, *prioritizes healing* for the child, *health promotion* for the child and grandfather, and invests in connection with the family by sensitively meeting their immediate and longer-term need and opportunity.

A Systems Approach

In the complex, adaptive system of health care,⁴⁵⁻⁴⁷ the behaviors generated by these generalist and specialist simple rules are complementary. The generalist rules provide a broadly-inclusive entrée point into health care, and are an effective and efficient ongoing basis for providing and personalizing the majority of care. The generalist rules support engaging more narrow expertise when needed, and then integrating that targeted expertise back into coherent whole-person care.³⁴

These rules are used by all clinicians. Specialist rules are the predominant approach of most

specialists, and are used as one tool in the broader approach of most primary care generalists. Generalist rules are applied by specialists in some situations, but are the predominant approach of most generalists.

Specialist rules provide narrowly-focused, deep expertise and technical skill/knowledge made more effective by strong primary care that filters out less relevant cases and allows specialists' narrow knowledge to be used with maximum benefit and minimum side effects from using often riskier treatments for which the benefits outweigh the risks.⁴⁸ Generalist screening out or shared care of cases with complex multimorbidity makes the specialist population more like the highly-selected people who typically are included in clinical trials.^{8,49,50}

The complementary nature of these rules help to explain the paradox that while generalists provide less evidence-based care of individual diseases than specialists in those diseases, locales that have a larger percentage of generalists exhibit better quality of disease care at the system and population level.⁵¹ The effect of the primary care rules in broadly recognizing, intentionally prioritizing, and integratively personalizing care may explain why health systems based on a strong primary care foundation have healthier populations, less inequity, and lower cost.^{16,52}

The application of specialist rules is enhanced by vertically-integrated systems that organize multiple levels of care along disease-based service lines.⁵³ The application of generalist rules is enhanced by horizontally integrated systems that organize cross-sectoral collaboration to improve overall health of people and populations.^{54,55} A whole-system approach in which vertical and horizontal integration develop in tune with each other,^{54,56} supports both specialists and generalists in doing what they do best and in advancing the emergent properties of healing and health for people and populations.

Conclusion

The exacting knowledge of specialism and the apparent simplicity and hidden complexity of generalism, both can be enhanced by knowing and supporting the actualization of their simple rules, together. The effectiveness of primary care practice and education can be enhanced by developing systems that support, rather than hinder, the integrative force of primary care and its broad focus and investment in relationships.^{1,16,57-60} Whole-systems approaches that recognize and promote an appropriate balance of specialized and generalist approaches, knowledge, and workforces,^{48,49} based on these apparently simple rules, have great potential to lead to the complexly-emergent outcomes of population health, equity, and health care quality at sustainable cost.⁶¹

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