Chapter 1 Putting Health Back into the Healthcare System



Joachim P. Sturmberg

The good physician treats the disease; the great physician treats the patient who has the disease.

William Osler

What should be the focus of the healthcare system? This question arose when Susanne (not her real name), a 24-year-old dying from cancer, ask me the week prior to her death: *Doc*, *I know I am dying*, *but can you tell me why I am feeling so healthy?*

One might think that this is a rather paradoxical question; however, it is a question that challenges the fundamental assumptions we hold about the nature and purpose of what we call "the healthcare system".

1.1 Exploring Our Mindsets

Mindsets define a particular way of thinking; they allude to our attitudes and opinions about things. Three common worldviews that determine one's approach towards Susanne's question—can one be healthy at the time of dying from cancer—can be categorised as:

- The *objectivist's worldview*—clearly, this is a paradoxical statement
- The *person-centred worldview*—health is an experiential state, one's experiences occur in various contexts, and the context of dying can be experienced in Susanne's way

School of Medicine and Public Health, University of Newcastle, PO Box 3010, Newcastle, NSW 2260, Australia

Foundation President, International Society for Systems and Complexity Sciences for Health, Newcastle, NSW, Australia

e-mail: jp.sturmberg@gmail.com

J. P. Sturmberg (⊠)

• The *professional worldview*—if Susanne feels healthy in the final stages of her life, then we must have provided exceptional care

1.2 Why Are Health Systems Focused on Disease?

Why are the objectivist and professional worldviews so prevalent, and why is it so hard for essentially all "health system professionals" to adopt a person-centred perspective?

This question is even more perplexing when one considers the philosophy and history of health care¹ which has largely been about *caring for the person/patient*. It is only for the past 175 years that a shift in focus on the *object of disease* became possible. There are a number of reasons for this including:

- The classification of the "patient's condition" as diseases (taxonomy)
- The discovery of the "causative organisms" responsible for most of the diseases of the time (*aetiology*)
- The correlation of the clinical picture of the suffering patient with the "seat of disease" in the post-mortem study [1] (pathology)

1.2.1 Progress at a Price

Undoubtedly these developments have made medicine suddenly much more effective and have saved many lives, but at a price. The price became obvious to many eminent clinicians very early on during the phase of unprecedented scientific and technological advancement (Fig. 1.1).

For example, Rudolph Virchow, while deeply interested in studying disease mechanisms, was far more interested in the causes of ill health in the community. While accepting the infectious mechanisms of disease and discovering immunological ones, he recognised that the living and working conditions of the people are much more important in causing disease. As he famously pointed out health professionals have much larger responsibilities in keeping people healthy:

Medicine is a social science, and politics is nothing else but medicine on a large scale. Medicine, as a social science, as the science of human beings, has the obligation to point out problems and to attempt their theoretical solution: the politician, the practical anthropologist, must find the means for their actual solution ... Science for its own sake usually means nothing more than science for the sake of the people who happen to be pursuing it. Knowledge which is unable to support action is not genuine - and how unsure is activity without understanding ... If medicine is to fulfill her great task, then she must enter the political and social life ... The physicians are the natural attorneys of the poor, and the social problems should largely be solved by them.

(1848), in Virchow's weekly medical newspaper Die Medizinische Reform

¹Health care refers to the act of caring; healthcare to the institution.

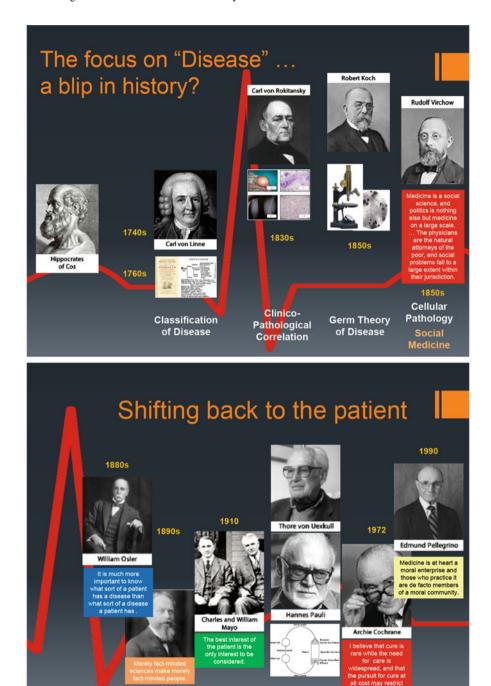


Fig. 1.1 The temporal nature of "disease" in the history of healthcare

1.3 The Need to Refocus on the Person/Patient

Since the 1850s the need for medicine to refocus on the *care of the patient* rather than his diseases has been emphasised by a long list of eminent physicians and philosophers alike:

- William Osler—It is much more important to know what sort of a patient has a disease than what sort of a disease a patient has.
- Edmund Husserl [2]—Merely fact-minded sciences make merely fact-minded people.
- The Mayo brothers [3]—The best interest of the patient is the only interest to be considered.
- Thure von Uexküll and Hannes Pauli [4]—For the science of medicine, however, the aspect of the subjective universe is especially important because all studies show that people do not necessarily respond to the objectively determinable occurrences of the environment but to what the occurrences mean to them subjectively.
- Archie Cochrane [5]—I believe that cure is rare, while the need for care is widespread and that the pursuit for cure at all cost may restrict the supply of care.
- Edmund Pellegrino and David Thomasma [6]—Medicine is at heart a moral enterprise, and those who practice it are de facto members of a moral community.

Despite these passionate pleads for a humanistic and holistic approach to health care, the focus of healthcare systems remains on managing diseases. Thus, a more apt way of describing what we have would be "disease management systems". And unsurprisingly, being concerned with the object of disease detracts—or even makes it undesirable and unnecessary—to appreciate the consequences of the object, disease, on the subject affected, the person or patient.

1.4 The Person/Patient at the Centre: Connecting the Subjective with the Objective

Connecting the subjective with the objective is the basis of health care or as Uexküll and Pauli put it: *The experience of sharing a common reality with the physician is of great importance to the patient. It is part of each therapy* [4].

Making this a common reality, the "system of healthcare" needs to shift its focus back on the person/patient; in other words: we need to *redesign health systems* [7-10].

1.4.1 Complex Adaptive Health Systems

Health systems are a form of organisational systems. Complex adaptive organisational systems function based on three key principles:

- The definition of its purpose and goals
- The definition of its value and "simple (operating) rules"
- The alignment of its subsystems with the system's overarching purpose, goals and values framework

Of note, a complex adaptive health system is an umbrella system that contains the many diverse subsystems, subsubsytems and so forth of a "health system". The health system maintaining the focus on these three key principles allows the emergence of a seamlessly integrated health system, both within and across its multiple organisational levels.

Importantly, the "healthcare system" is only ONE of the many subsystems of a complex adaptive "health system". It is that part of the health system that delivers a wide range of health professional—colloquially known as *medical*—care.

Primary care, secondary care and tertiary care in turn are organisational and functional subsystems of the "healthcare system". Each of these subsystems has a particular focus and role in the "care of a person/patient" and, when properly integrated, provides a seamless "health care experience".

1.4.2 Complex Adaptive "Person-Centred" Health Systems

Putting health—defined as the "experience of health" by the person—back into the health system can be conceptualised through the health vortex model [11–13] (Fig. 1.2). The health vortex has at its focal point "the needs of the person/patient". As the vortex builds upwards, the organisational layers of healthcare, community health and prevention and finally the health policy domain emerge. As a "personcentred" system, all organisational layers maintain their focus on "the needs of the person/patient"—such a health system is vertically and horizontally seamlessly integrated.

1.4.3 Connecting the Subjective with the Objective

Health, like illness and disease, are themselves highly complex adaptive states and must be distinguished from the less complex state of disease [14]. It is the loss of complexity that creates the "patterns of diagnosable diseases". Health care facilitates the re-emergence of a new highly complex adaptive state resulting in "healing the person/patient".

The Patient's Health Experience Driving the Health Care Vortex

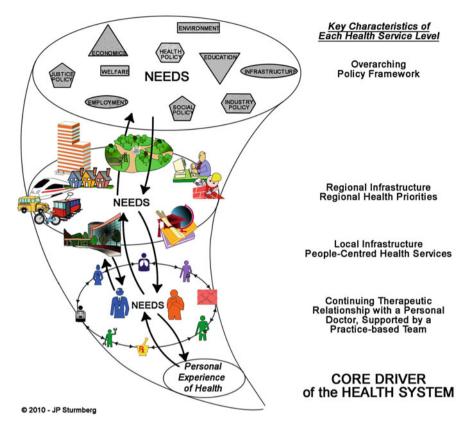


Fig. 1.2 Health at the centre of the health (and healthcare) systems

1.5 Conclusions

It would appear that the prevailing pre-eminent focus on the *object of disease* may well be no more than a *blip on the timeline of the history of medicine*. As in every complex adaptive system, perturbations leave their mark—being able to understand the causes and temporal consequences of some diseases has had dramatic effects; however, the central concern of medical care remains the person affected by the disease. The recent findings of the psychoneuroimmunological pathways [15, 16], and in particular the influence of the "social determinants of health" [17] on these pathways, as the drivers of disease processes, and the understanding of modulating these pathways through social, emotional and cognitive based interventions, have opened the door to much more effective care for the many people experiencing illness without disease.

These insights have also opened doors to the redesign of health systems around the person and his health experiences; the health vortex model offers a tangible framework to guide the redesign of health systems that make *health* the driver in the pursuit of achieving highly integrated, constantly adapting health systems that *meet the needs of the person/patient*.

The Journey

My journey into systems and complexity sciences entails two childhood experiences and a crisis in the early years as a medical practitioner. I learnt from my father, a mechanical engineer, the notion of unintended consequences; his designs of new machinery to make it possible to build very high precision products, like the spindles for the canal lift at Henrichenburg, close to where I grew up, or the magnets for the first hadron collider at CERN, meant that highly qualified tradesmen would lose their jobs, and with it manufacturing would lose a unique set of valuable but underappreciated skills solely residing in these men, something that weighed heavily on his social conscience.

The exposure to Donella Maedows' *Limits to Growth* provided a different way of seeing and thinking, that of interconnected and interdependent systems and their nonlinear system dynamics behaviour.

Unfortunately medical school pushed all of this to the side, only to hound me in my early career in general practice. At the time of crisis, Ian McWhinney and Ed Pellegrino came to my rescue.

Ian McWhinney helped me to understand my role in healthcare. He emphasised the importance of understanding the contextual dimensions and the underlying feedback relationships that characterise the patient's illness experience. Ed Pellegrino opened my eyes to the epistemology of medicine as a discipline whose essential focus is on both health and disease.

The journey into health-related systems and complexity sciences from the start was a collaborative effort with my close friend and colleague Carmel Martin—we co-edit the *Forum on Systems and Complexity in Health* within the *Journal of Evaluation in Clinical Practice* and co-edited the *Handbook of Systems and Complexity in Health*. The network grew slowly over time, and its interactions have shaped my understandings and insights of health and illness and what this means in terms of shaping a person-centred health system. Important collaborators along the way include amongst others Di O'Halloran, Jeanette Bennett, Andrew Miles, Ruben McDaniel, Henry Heng, Bruno Kissling, Andrew Seely, Bruce West, Geoff McDonnell, Curt Lindberg, Stefan Topolski and Stephen Lewis.

The "rediscovery" of the interconnected nature of the world, and in particular that of the patient, has opened my eyes to the great deficiencies of and the need for the redesign of our approaches to healthcare and the healthcare system, resulting in the recently published book *Health System Redesign: How to Make Health Care Person-Centered, Equitable, and Sustainable* [10].

Take-Home Message

• A "health-focused" health system requires a person-centred mindset

- The developments and discoveries of taxonomy, aetiology and pathology gave rise to the *focus on the object of disease*
- A health system that puts the focus on *health as a person's experiential state* does not undermine the role of "disease-focused" care where needed
- Putting health back into the healthcare system requires a *collaborative* redesign effort

References

- Sedivy R. Rokitansky und die Wiener Medizinische Schule. Von der Naturphilosophie zur Naturwissenschaft. Wien Med Wochenschr. 2004;154(19–20):443–53.
- 2. Husserl E. The basic problems of phenomenology: from the lectures, winter semester, 1910–1911. Dordrecht: Springer; 2006.
- 3. Mayo Clinic Health Policy Centre. Building a New Vision for Health Care in America. Your Voice. New Vision. www.mayoclinic.org/healthpolicycenter.
- 4. Uexküll Tv, Pauli HG. The mind-body problem in medicine. Adv J Inst Adv Health. 1986;3(4):158–74.
- Cochrane A. Effectiveness and efficiency. Random reflections on health services. London: The Nuffield Provincial Hospitals Trust; 1972.
- 6. Pellegrino E, Thomasma D. A philosophical basis of medical practice. Towards a philosophy and ethic of the healing professions. New York: Oxford University Press; 1981.
- 7. Institute of Medicine. Crossing the quality chasm: a new health system for the 21st century, 2001. Available at: www.iom.edu/file.asp?id=27184.
- 8. Jones P. Design for care: innovating healthcare experience. New York: Rosenfeld Media; 2013.
- 9. Kolko J. Design thinking comes of age. Harv Bus Rev. 2015;93(9):66–9.
- Sturmberg J. Health system redesign: how to make health care person-centered, equitable, and sustainable. New York: Springer; 2017.
- 11. Sturmberg JP, O'Halloran DM, Martin CM. People at the centre of complex adaptive health systems reform. Med J Aust. 2010;193(8):474–8.
- 12. Sturmberg JP, O'Halloran DM, Martin CM. Understanding health system reform a complex adaptive systems perspective. J Eval Clin Pract. 2012;18(1):202–8.
- 13. Sturmberg JP, O'Halloran DM, Martin CM. Health care reform the need for a complex adaptive systems approach. In: Sturmberg JP, Martin CM, editors. Handbook of systems and complexity in health. New York: Springer; 2013. p. 827–53.
- 14. Katerndahl DA. Is your practice really that predictable? Nonlinearity principles in family medicine. J Fam Pract. 2005;54(11):970–7.
- 15. Kemeny M. Psychoneuroimmunology. In: Friedman H, editor. Oxford handbook of health psychology. New York: Oxford University Press; 2011. p. 138–61.
- Sturmberg JP, Bennett JM, Martin CM, Picard M. 'Multimorbidity' as the manifestation of network disturbances. J Eval Clin Pract. 2017;23(1):199–208.
- 17. Slavich GM, Cole SW. The emerging field of human social genomics. Clin Psychol Sci. 2013;1(3):331–48.