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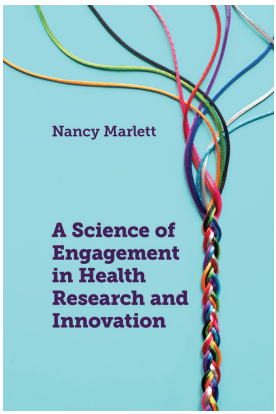

A SCIENCE OF ENGAGEMENT IN HEALTH RESEARCH AND INNOVATION

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Salutogenesis as Patient Expertise in Health and Healthcare: Patients Reclaim Their Health in Healthcare

Highlights

- Health promotion theory at personal, program, and societal levels
- Patient experience informed by salutogenesis
- How the decision to face stressors refocuses personal, program, and social resources
- Sense of coherence as a theory of patient expertise in healthcare
- How salutogenesis informs emancipatory and democratic health research

Salutogenesis is not commonly understood in Canada and the United States but has been a major force for change in health and management in many other countries, as noted in *The Handbook of Salutogenesis*, a major collaboration of current theory, research and practice (Mittelmark et al., 2017b, https://www.ncbi.nlm.nih.gov/books/NBK435831/). The theory was first published by Antonovsky (1979), and came to my attention while writing *Grey Matters*, and focused on the feasibility of teaching seniors and patients to conduct qualitative narrative research with their peers. Following the publication of *Grey Matters*, we offered a graduate seminar course in seniors' resilience that included seniors who had been co-authors in *Grey Matters* and graduate students. Dr. Shklarov, a Russian physician with a PhD in rehabilitation studies who worked with *Grey Matters* and PaCER, introduced us to salutogenesis. It affirmed that patient agency in everyday interactions with inevitable health-related stressors build resistance resources. Learning to understand, manage, and build resources that promote well-being and confidence, extend the scope and opportunities to study what can be learned from personal and care provision. As such, salutogenesis is the companion to pathogenesis, the search for the causes and cures related to illness and the deficits that lead to studying the vulnerabilities and

fallibility caused by illness and loss. We realized that salutogenes is not only informed patient engagement but professional practice. Both approaches are needed, and peer research uses action-based narrative methods to explain concerns in order to find pragmatic solutions in systems dominated by pathogenic approaches.

During the early stages of PaCER we found that salutogenesis can be used to guide research co-design to prioritize a main concern that relates to stressors at personal, program, and policy levels. Peer research methodologies explain these concerns or stressors to find the best resources and solutions to counteract or solve the main concern. This is the purpose of action-based research, supported by salutogenesis that encourages peers to share and analyse stories to make a difference. In short, peer research fosters the expertise of searching for health and well-being in the midst of attending to illness and medicalized care that directly aligns with the following description of salutogenesis:

> Patients choose to face stressors by calling on program or generalized resources to build wellness capacity and, in the process, develop a sense of coherence, resilience and confidence. In health, patients develop "a pervasive, enduring though dynamic feeling of confidence that one's internal and external environments are predictable. In addition, there is a high probability that things will work out as well as can reasonably be expected" (Antonovsky, 1979, p. 10).

This chapter is not a retelling of Antonovsky's theory of salutogenesis but a response to his challenge to use salutogenesis to explore how it informs new ways of seeing healthcare and research to bridge between current medical health theory and theory that celebrates the expertise of patients. Salutogenesis has supported the purpose of peer research—uncovering and analyzing stories that can inform healthcare solutions hard to solve problems as part of the stages of illness, treatment options, healthcare professionals, transitions, and discharge. What we have learned is that extended experience within health systems can build patient expertise to face the stressors patients and families encounter, strengthening existing resources and building new ones to handle care, relationships, programs, transitions, and policies.

A patient reviewer of the manuscript noted the salutogenic approach of Headstrong, a youth leadership initiative of the Mental Health Commission of Canada (n.d., https://openingminds.org/training/headstrong/). It champions mental wellness through online school programs that challenge stereotypical thinking about mental health and inspire a positive focus on youth leadership. They use school-based teaching using real-life recovery stories, discussions,

and action planning initiatives that highlight self-care, resilience and positive mental health skills within a community based, peer-led support model.

Antonovsky, the architect of the theory, saw in the strength and health of survivors of the Holocaust a theory of health that changed illness, trauma, and loss from the enemy of health to being a natural and ubiquitous part of living. It is this personal life strategy that becomes an emancipatory bulwark of healing and empowerment against the challenges we all face.

Salutogenic theory is an elegant description of the complex but essential search for health and well-being. The central feature revolves around a way of thinking that focuses on a sense of coherence and a developmental model challenging stressors and building resources as young children through to preparing to die (Fries, 2020, https://doi.org/10.1057/s41285-019-00103-2). The key is the assertion that people have choices. They can adopt an illness-based approach that locates stressors as a threat or they can see health-related stressors as an opportunity to build self-knowledge and resilience. The most used feature of salutogenesis is the measure of a sense of coherence that is grounded in three distinct characteristics: comprehension, or our understanding and access to information and trusted guides; manageability, or how we manage and explore coping strategies; and meaning, or how we are motivated to face life with purpose, finding meaning along the way.

Background and Theory

Aaron Antonovsky was an Israeli-American medical sociologist who became intrigued by the resilience of Holocaust survivors who were thriving in their old age, despite their horrible experiences as children. He thus became a champion of including wellness as part of a continuum of health. As such, it offers a health-based theory for everyone, not just those who have been labeled sick or deficient.

The salutogenic approach is reflected in recent public health frameworks, beginning with the Ottawa Charter (Public Health Agency of Canada, 2017, https://www.canada.ca/en/public-health/services/health-promotion/population-health/ottawa-charter-health-promotion-international-conference-on-health-promotion.html) which states, "Health promotion is the process of enabling people to increase control over, and to improve, their health" (p. 1). The Charter views people as active agents rather than just 'victims' of disease. It shifts agency from professional interventions to the capacity of populations. People marginalized by systemic discrimination are recognized as holding assets and knowledge that can be harnessed to create health promoting environments. More recent articles reinforce the links between salutogenesis and health promotion (García-Moya & Morgan, 2016, https://doi.org/10.1093/heapro/daw008). Health promotion asserts that deep, personal ways of being,

thinking, and acting lead to a feeling of inner trust that taps into our ways of knowing about healing. This is connected not only to personal health but Indigenous and planetary health movements that can show the way to be present and connected to healing not only people but the planet.

Salutogenesis is a dynamic theory, calling upon personal and program resources called 'generalized resistance resources' (GRR) that are aligned with the social determinants of health, such as education and employment, which help people resist or combat stressors. This has been expanded here to also include program-specific resistance resources such as safe refuge, writing about experience, and programs built around a salutogenic construct. Individual or specific resistance resources such as a pet or a talent for observing are also possible.

The second general process is the development of a sense of coherence that evolves as people build resilience through challenging stress experiences. This helped understand resilience from a seniors' perspective.

The stress seniors had faced during the World Wars and the Great Depression did not diminish them—it made them stronger and more resilient. For example, the loss of male family members increased the opportunities of children, women, and seniors to take up important roles in the family and the economy. The result was the importance of struggling to build resilience. Seniors worried that today's youth were disadvantaged because they did not have opportunities to face adversity and overcome their fear and anticipation of stress.

Salutogenesis was first introduced in the later stages of *Grey Matters* (Marlett & Emes, 2010) and our early studies in PaCER. By sharing concerns, seniors took control by working to explain these concerns to 'make a difference.' Some examples included figuring out the need for a personal pathway through chronic illness, building capacity of families to discuss end of life options rather than leaving decisions to the head of household in South Asian communities, looking for stories of overcoming cancer to counteract the omnipresent wasting and death presence of cancer in Indigenous communities.

Salutogenesis aligns with action research using grounded theory methods that focus on explaining main concerns in order to uncover positive changes in patient roles, relationships, and social organizations. Patient experience research does not stop with discrete experiences of direct care. Salutogenic-based methods open research to shared patient expertise in the search for wellness during and following care.

While peer research often starts with concerns about social problems and systemic barriers, the goal is to explain what is happening to reframe or resolve the concern from a patient perspective. Looking for and prioritizing stressors

as social problems marked the co-design or SET stage. During data collection and analysis, grounded theory analysis explored how stressors worked and how resources resisted the force of stressors. As categories were identified during interpretation, salutogenesis helped most projects ensure that the interpretations were comprehensive and patient-centric.

The anticipated changes as part of the fourth industrial revolution point to salutogenesis to increase patient expertise about preventing ill health, promoting positive health, and managing ongoing health. This shouts of the need for salutogenic action research done by patients and community members in co-design, academic research (citizen science), and in all forms of social innovation and social enterprise (Ashoka). This needs to occur at three distinct salutogenic levels: the study of personal (micro) levels of change; meso levels of programs and treatments; and macro levels of policy and society.

Salutogenesis is present throughout this emancipatory science of engagement and all sections of the book, because it focuses on the empowerment potential that is often missed. It underlies the shift from traditional patient experience categories of fear, vulnerability, loss, and dependence to patient expertise of being in control of information and resources, coping and adapting to challenges, and finding meaning and social connections. This alternative voice often surprised sponsors or those encountering peer research for the first time. This is the long view of health, a narrative-informed patient view to complement a professional view of a suffering patient experience within healthcare.

In Section 2 of the book, we look to salutogenesis theory to guide co-design, conducting research and making sense of experience. In Section 3, we shift to the expertise of patients and communities to make a difference. This is because making a difference is not only about how technology and innovation can reduce the burden of illness; it is also about increasing opportunities for patients to be part of innovations in care. The fourth industrial revolution in health aims to move healthcare upstream, where the patient will be responsible for detecting problems earlier, deciding on technologies to maintain health, reducing risk of future illness and monitoring health status. Salutogenesis is a theory to inform how to build these new healthcare practices.

The Basics of Salutogenesis in the Asset-Based Study of Health Experience

The area of patient experience is complex, tied to theoretical and epistemological debates about who owns and curates patient experience, the methods and measures used, and how patient experience informs research and practice. A good example of this is Rowland and Kuper (2017, https://doi.org/10.1007/s10459-017-9777-y), who noted that patient experience was constructed

through the prevailing ideological systems of a particular moment in time and politics. From their article we see a clear example of patient experience from the perspective of nursing within hospital settings. It provides insight of vulnerability, embodied experience of being overwhelmed, and physical fallibility (the way the body asserts itself). In this view:

- Patients are objectified, rendered voiceless.
- Times when patients are most vulnerable help us to understand what is important to them so that we can respond appropriately and imagine how to improve care.
- Embodied experience of physical dominance, fallibility, and vulnerability focuses on the experience of the body within the role of patient.

The following definitions of patient experience have been slightly adapted from the Beryl Institute for Patient Experience (n.d., https://theberylinstitute.org) to demonstrate the current view of patient experience as it relates to informing healthcare more generally:

- Patient experience encompasses the range of interactions that patients have with the healthcare system, including their care from health plans and from doctors, nurses, and staff in hospitals, physician practices, and other healthcare facilities. As an integral component of healthcare quality, patient experience includes several aspects of healthcare delivery that patients value highly when they seek and receive care, such as getting timely appointments, easy access to information, and good communication with healthcare providers.

These common definitions are information that is considered essential for effective, efficient, and sustainable healthcare. These examples lead to methods and measures called patient-oriented research (POR). Standardized, patient experience measures create quantified patient experience, outcomes, and satisfaction data for 'big data' research that compares treatments, systems, and populations.[1] POR focuses on target behaviors identified by healthcare professionals

1 For those not familiar with these POR approaches, the Agency for Clinical Innovation (https://aci.health.nsw.gov.au/statewide-programs/prms/about) provides a very quick overview of PowerPoints from the New South Wales Agency for Clinical Innovation. Those interested in the development of our Canadian Strategies for Patient-Oriented Research should look into Ball et al. (2019, https://www.rand.org/pubs/research_reports/RR2678.html).

and health systems analysts that provide guidance to improve health outcomes and more efficient and effective care. As such, they are important measures in health research.

This manuscript, however, is devoted to a patient perspective—how they see their health and healthcare and the problems they consider worth investigating. In President Obama's call to support precision medicine's potential, the mission was to enable all Americans to make the best health decisions, and this would mean that they were able to securely access and analyze their own health data. This was indicative of the expanding need to include patient-generated and patient-owned data.

Recent developments within CIHR and Patient-Centered Outcomes Research Institute (PCORI) (https://www.pcori.org) recognize that it is not enough to measure patient experience, satisfaction, outcomes, needs, and preferences. CIHR, in the Strategies for Patient-Oriented Research section of their website (https://cihr-irsc.gc.ca/e/48413.html), and PCORI are now including the need to recognize the expertise of patients and to engage them throughout health research and healthcare. CIHR set three principles for POR:

- Patients are seen as experts.
- All research is solely directed by patient needs.
- Patients are equal collaborators within the healthcare team.

Table 6.1 summarizes the main differences of pathogenesis and salutogenesis that inform a patient perspective in health research. Pathogenesis, the search for the causes of ill health that includes all biomedical, medical, and health system health research. The features of salutogenesis are in keeping with emancipatory social science, citizen health, changemaking, and participatory action research, including community-based participatory research and patient and community engagement research.

Note that the differences present options not conflict. Even though they represent opposite ends of a continuum of health, both options are needed. Our findings support that a salutogenesis approach applies throughout all aspects of healthcare, particularly in those areas most impacted by stress and lifestyle conditions that include a large portion of healthcare costs.

Table 6.1 *Comparing Pathogenic and Salutogenic Approaches to Health Research*

Pathogenesis	**Salutogenesis**
Biomedical ill health	**Physical and mental wellness**
Evidence based research (about patients)	Context-based, system-focused paradigms for patients
Avoiding a problem	Realizing potential
Reactive	Proactive
Assumes we are inherently healthy	Assumes we are inherently flawed
Idealistic	Realistic
Condition-specific quantitative research	Citizen- and community-centred qualitative research
Health professionals are the experts	Patients, families, and community are the experts

We can now look at the elements of salutogenesis as they relate to academic peer research and peer research. Table 6.2 includes not only the elements of salutogenesis but the roles of citizens.

Table 6.2 *The Role of Salutogenesis in Qualitative Peer Research and Social Innovation*

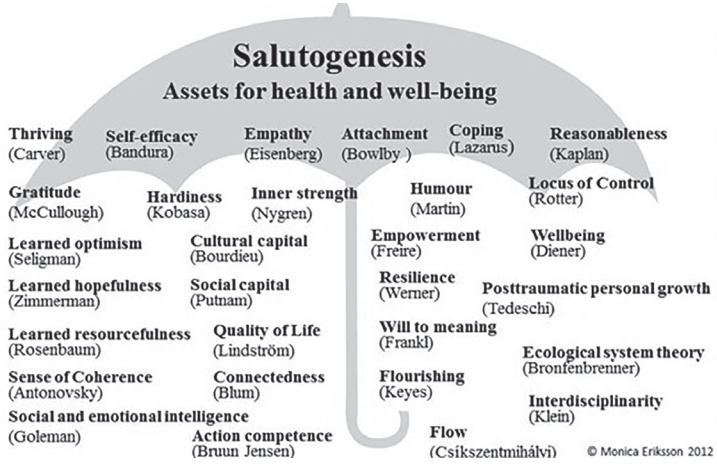
Elements of Salutogenesis	**Academic Peer Research**	**Peer Research**
• Stress is ubiquitous and natural, and therefore provides opportunities to face stress	• Stress is to be avoided or reduced by treatment and pharmaceuticals	• Citizens often hold beliefs that stressors are resolved by experts • Peer research provides examples of how patients and communities have capacity to manage stressors
• Resistance resources exist at all levels	• Research targets the most appropriate level to answer research questions • Includes practice, policy, and program information about resources	• Gaps in generalized resistance resources bring communities together to act • Gaps in program resistance resources are studied in program evaluation

Table 6.2 (*continued*)

Elements of Salutogenesis	Academic Peer Research	Peer Research
• Opportunities to challenge stressors are essential to survival, growth, and confidence	• Stress is considered a personal characteristic • Reducing stress is the role of professionals, programs, and policy	• Resources to confront stressors are most effective when personal or offered within or by the community (social enterprise)
• Sense of coherence is a global measure of confidence and resilience	• Sense of coherence is a measure of confidence and resilience to test the impact of practices and programs	• Sense of coherence scales are used to measure capacity development at personal, project, and social levels
• Overall focus	• Patient expertise in interpretation	• Social impact of change

Salutogenesis has become the umbrella for asset-based psychology. Find the positive health or asset-based theories that you have used and find those that relate to your future goals. Most closely aligned theories are resilience, empowerment, coping, self-efficacy, and the theories related to optimism, hope, and resourcefulness.

Figure 6.1 *Salutogenic Models of Positive Health*



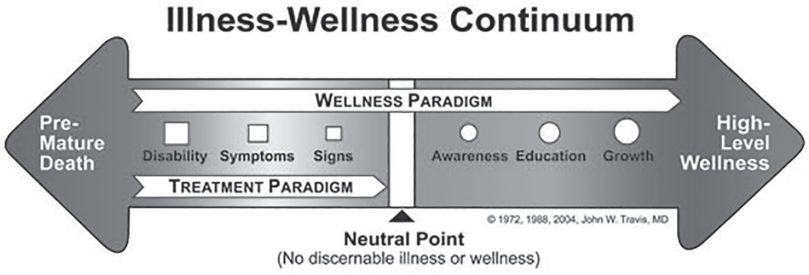
Note: Source: Eriksson, 2012

Salutogenesis is one of the most comprehensive asset-based theories, and it informs many other theories and constructs that have been used in explaining the experiences related to health and healthcare. Can you locate the constructs that you have used to guide your practice or research? Where is it located in relation to salutogenesis?

The Nature of Health Experience

Figure 6.2 introduces a related wellness continuum that grounds patient experience that leads to valuing engagement and expertise. It has been called a continuum of health that depicts a state of disequilibrium caused by health-related stressors in the form of pathogens, illness, loss, and trauma. The end is called 'dis-ease' in salutogenesis and represented here as the outcome—premature death. The other end of 'ease' or a sense of confidence and optimism relates to a high level of wellness that is not determined by the lack of stressors. Figure 6.2 represents a full spectrum of patient experience that will be our reference point throughout the rest of this chapter.

Figure 6.2 *Salutogenesis in Everyday Use That Aligns with the Salutogenesis/Pathogenesis Continuum*



Note: Illness-Wellness Continuum as conceived by J. W. Travis (2004). Reproduced here with permission. (Source: The Wellspring, 2018, http://www.thewellspring.com/wellspring/introduction-to-wellness/357/key-concept-1-the-illnesswellness-continuum.cfm.html)

The pathogenic or biomedical approach is represented by the left treatment side. This treatment paradigm includes stages related to way stations of signs, symptoms, and then disability, ending at premature death, which has dominated health research. The final result of medicine is noted by the treatment paradigm that aims at reduced symptoms and recovery. This more familiar or dominant discourse of health calls upon professional expertise to counteract the vulnerability of patients in the face of threats or stressors, which are considered threats to health.

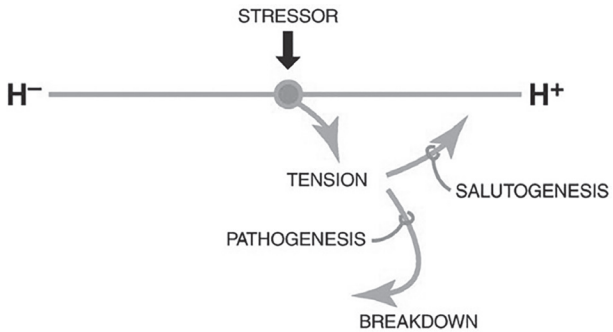
The right side of the diagram could be considered the salutogenesis, psychosocial, and environmental approach that focuses more on wellness and healthy living. This side provides the health promotion side of salutogenesis with way stations supporting health promotion and citizen health movements of awareness, education, and growth. The wellness paradigm here stretches throughout the entire length of the continuum, ending in high-level wellness as the end result of living until a healthy death.

There are several additional features of this diagram. The first being that while it is a continuum from dis-ease (premature death) to ease (high-level wellness), it also captures the dichotomous history of medicine. This dichotomy was based on the long-held belief that medicine becomes activated when healthy people are attacked by stressors. They are in danger of being damaged either acutely, repeatedly, or fatally if they do not receive medical attention. This implies people who are not ill are healthy and that health is not the responsibility of medicine until there is a diagnosis. It is an either/or situation. People easily adopt this dichotomy. When they are diagnosed, they relate to that diagnosis. No matter how steady their recovery or how skilled they are, their identity holds on to that label.

We can now focus on how salutogenesis denies that this dichotomy exists and instead posits that life itself is always in a state of flux, with health-related stressors a natural part of living. Stressors are not only present, they are also essential if we are to learn how to figure out how to cope and create a personal identity of resilience.

We can see this dynamic in an original diagram (Figure 6.3) that is often used as the act of salutogenesis.

Figure 6.3 *The Options of Salutogenesis and Pathogenesis That Arise from a Stressor*

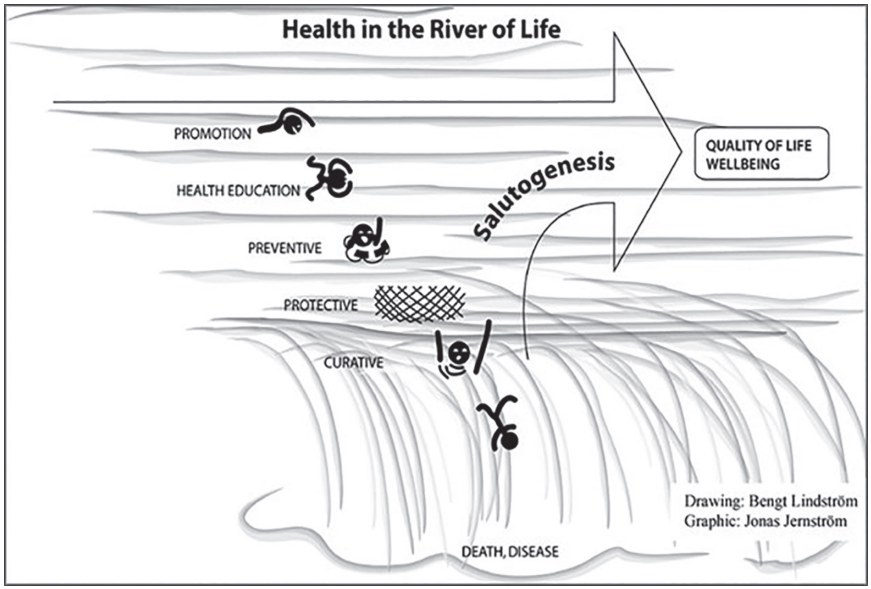


Note: Graphic by Bengt Lindström, Monica Eriksson, Peter Wikström (Lindström & Eriksson, 2010). Published with permission from Folkhälsan Research Center, Helsinki.

While this has been called a health continuum, it depicts the state of disequilibrium caused by health-related stressors in the form pathogens, illness, loss, and trauma. One end is represented as a simple H+ or 'ease' that results from a salutogenic gaze, reflecting a sense of confidence and optimism. This relates to a high level of wellness that is not determined by the lack of stressors. The other end, H- relates to the concept of 'dis-ease' as part of pathogenesis that leads to further breakdown. This diagram represents patient agency in choosing their role in their health and healthcare. In our PaCER research, however, there was a blurring of direction—at times patients focused on the dis-ease culture of healthcare while looking for an overall movement to salutogenesis. They saw this diagram as encompassing the deepening sense of coherence that results through working to build comprehension, manageability, and meaning. They saw the stressor as leading to tension, which can be understood from two perspectives: pathogenesis that leads to a breakdown unless health professionals intervene from the negative side of the diagram to overcome the negative outcome of the stressors; or salutogenesis that leads to a positive experience of growth through learning about stressors and using resistance resources to find ways to manage the impact and become more motivated to continue to see stressors as opportunities to increase personal and program resources.

Figure 6.4 depicts interventions when viewed as stages of illness using the metaphor of a river that eventually reaches a waterfall of premature death. The river in the diagram begins with health promotion, which averts the stressor and continues as the impact of the stressor increases until medical symptoms present the waterfall as a crisis with dire outcomes. Current healthcare tends to wait until symptoms of a health condition are recognizable and patients tend to wait, hoping that the pain is temporary.

Figure 6.4 *Stages of Health and Health Experience; Upstream Focus of Salutogenesis*



Note: "Health in the River of Life." Drawing by Bengt Lindström, graphic by Jonas Jernström.

This is a picture of expected stages of health that reflects the 1970s when the early signs of illness could be picked up during the 'annual checkup' as part of family medicine. Unfortunately, annual checkups were cut from primary care in a move to reduce costs in Canada and the United States. Countries who adopted salutogenic practices have had more success in maintaining a preventive and upstream medicine approach because they are more likely to see prevention as an accepted part of healthcare. This enables doctors to identify illness early and to treat illness proactively as part of health promotion. This is best done with an informed public who expects to be proactive in their personal health care.

A good example of salutogenenic practice would be cardiovascular medicine. As upstream or prevention and promotion approaches are taking hold in heart health initiatives, cardiovascular medicine itself is adopting a more holistic view that it is more effective in preventing heart disease instead of heroically treating advanced heart problems. In some countries, prevention is incentivised in primary care, and screening for heart health is becoming a regular practice.

It is also interesting to revisit the waterfall analogy from the perspective of the fourth industrial revolution that is the topic of Section 3, Possibilities. Here, the equation shifts dramatically from evident symptoms as the call to action. The advances in technology-based sensors, particularly when combined with artificial intelligence and machine learning, will dramatically change the nature of promotion and prevention.

I would like to use an example of a colleague who uses wearable technology to study gait in runners. The patterns detected in the strides and rhythms of runners can be used not only to improve performance but also to detect very early signs of potential strain and stress. These early signs can be used to notify the runner of early signs of stress that can be corrected and, thus, eliminate serious problems before they arise.

With increased wearables and implanted sensors, early signs of stressors can be caught and steps taken to remedy the emerging problem well before the need for curative medicine is reached. This is especially true with lifestyle-related chronic conditions, such as diabetes, where early detection can trigger early kidney and related organ support and supplementation.

While salutogenesis is more familiar in health promotion theory, it is important to note that the search for health extends throughout the illness side of the continuum. This became very apparent in the early PaCER studies. Patient expertise was not just about their illness, loss, and trauma. Instead, it was about what they had learned in their search for wellness in the face of problems and decline. This period in the development of PaCER had the feeling of new territory waiting to be discovered.

To understand patient experience, we now look at salutogenesis and two key psychological processes that impact how health events are experienced and processed. The first is the interaction of resistance resources and stressors as part of developing a sense of coherence through active engagement to resolve the impact of stressors by using existing resources or creating new program resources. The second is the use of a salutogenetic approach as a personal worldview that has utility in measuring change in resilience and confidence. For purposes of this emancipatory science, we focus on the study of stressors and resistance resources as targets of research. We do this to deepen our understanding of patient experience and, more importantly, on how patients develop expertise that has not been recognized or used in health research done by and with patients.

Ubiquitous Stressors and Dynamic Resistance Resources

Stressors

Stressors, or the situations that cause stress to the body and mind, are a natural part of life that unbalances or disrupts our sense of health and may herald disease. Antonovsky saw these ubiquitous incidents as instigators of resilience and confidence. Medicine, on the other hand, considers stressors as pathogens to be avoided and controlled. When we pathologize stress, we increase the negative impact and increase the damage. That is to say that the degree of 'dis-ease' increases when the person becomes trapped in the anxiety of the stress.

The following scenarios about emotional intelligence provide perhaps unintended examples of how seeing stress as negative increases anxiety and, therefore, is to be avoided or eliminated. I have also contrasted a salutogenic approach to the same situations.

Situation 1

"If you're unable to manage your emotions, you are probably not managing your stress either. This can lead to serious health problems. Uncontrolled stress raises blood pressure, suppresses the immune system, increases the risk of heart attacks and strokes, contributes to infertility, and speeds up the aging process. The first step to improving emotional intelligence is to learn how to manage stress." (Segal et al., 2024, https://www.helpguide.org/articles/mental-health/emotional-intelligence-eq.htm)

Notice how 'stress' introduces added levels of problems.

Salutogenesis alternative:

Identify the stressors that you are facing and figure out how it works. Is that stress something within you, a stress about your relationships, your work or other activities, your healthcare, or about a restriction imposed upon you by rules or policy? Then name that stress and think about what resources or help you can call upon to 'resist' that stress. Share your ideas with others who have also had to face this stress or with those you trust. Share your analysis with your health care professionals and look for ways to use this experience to learn new ways of handling stress.

Situation 2

"Uncontrolled emotions and stress can also impact your mental health, making you vulnerable to anxiety and depression. If you are unable

to understand, get comfortable with, or manage your emotions, you'll also struggle to form strong relationships. This in turn can leave you feeling lonely and isolated and further exacerbate any mental health problems." (Segal et al., 2024)

Salutogenesis alternative:
As you identify the stressors that make you anxious and you work out how to deal with each new stressor, you become stronger. You will develop new ways of coping with stress and, in the process, come to feel less alone and more able to help yourself and others.

How Stressors Work

From a salutogenic perspective, we modify and reframe our stressors as we encounter new situations and develop new resources that have the power to help us resist the impact of these stressors. In research, we make stressors visible by studying overt stress through observations, studying documents, and collecting data according to current stressful situations using patient stories to find common solutions. Table 6.3 is an example of a formal classification of stressors that relate to salutogenic theory.

Table 6.3 *Common Categories of Stressors*

Stressor	Examples
Situation-specific stressor	Lack of a computer, lack of transportation to get to appointments, no boots for winter
Individual physical and psychological stressors	Toxins, pathogens, genetic abnormalities as well as personal characteristics and medical conditions
Psychosocial stressors	Loss, grief, fear, accidents, horrors of history, unfilled goals, fear of aggression
Organizational stressors	Unbalanced power structures, restrictive roles, unequal relationships, unrealistic expectations, lack of goals or exit criteria
Societal-level stressor	Discriminatory health and social policies, institutionalization and incarceration, economic collapse, climate change, civil unrest
Lack of social determinants of health	Housing, safe environment, employment, education

Mapping Stressors

Stressors are difficult to observe directly, but they can be identified by observing the program or policy resources that are created to address the impact of stressors. By asking a mapping question such as "what personal, social, program, or policy stressors are being targeted by the program activities or policies?" it is possible to use the general stressor categories listed above to analyse how that stressor was challenged. Like most salutogenic tools, the researcher is encouraged to be specific about how stressors work to create opportunities for learning about stressors and gaining new skills that are specific to the culture, program, or population. The following example that was used in a course on salutogenesis demonstrates the nature of stressors, by moving from left to right.

Table 6.4 *A Mapping Sentence Tracking the Relationships Between Resources and Stressors*

The specific stressor (insert here) is an example of a . . .	**General stressor category** (select)		**A person**		**An established resistance resource**	And thus: diminishes combats controls avoids adapts accepts reframes to resolve the impact of the stressor
	physical		in a healthy relationship		a physical resource	
	psychological		in a family		an educational resource	
	psychosocial	that impacts a	in a friendship	that activates	primary care resources	
	program		with a condition		professional intervention	
	systemic		as part of a population		community support and inclusion	
	policy		as part of a community		peer support	
	social determinant of health		as a unique individual		advocacy	

As an example, when analyzing the stories observed as part of the research to understand the salutogenic nature of the programs at Calgary Wellspring,

we noted that there were no overt observations of stressors. In discussing this among the peer research team and the staff, we wondered if the program was instead focused on overcoming the impact of stressors.

We asked the question: "If this story is about a resource, what are the stressors it is resisting?" We worked through the above tool to capture the personal, program, and generalized resources that were observed and then analyzed these stressors using the above mapping sentence. These categories were further confirmed by a focus group of Wellspring members. We then used the identified stressors when creating the final theory of what works and how in a cancer wellness centre, as evident in the table below. This is an example of how salutogenesis works to provide data about both stressors and resistance resources.

The following sequence provides the Wellspring example of the use of a mapping sentence to understand stressors addressed in the programs and activities observed during peer research at Wellspring Calgary:

> PaCER interns were collecting stories about the mandate of their research to identify and categorize how Wellspring provided salutogenic resources to manage and motivate resistance resources to address the ubiquitous stressors of cancer. They used an early form of the mapping sentence above to identify the nature of the stressor and the steps taken to reduce the impact of the stressor. This basic analysis can ground the analysis of who is impacted by the stressor and then what type of resistance resource speaks to options for resolving the stressor.

Students in particular benefit from mapping sentences because it provides a way to analyze the nature of specific stressors, what groups or individuals are impacted, and the resistance resources that produce outcomes that are salutogenic. Table 6.5 was created by their work.

The three main categories below—fear, loss and emotions—captured the stressors identified in the narrative analysis of stories. The analysis of the stories and these stressors were used to inform the action-oriented theory of what worked and how at Wellspring. Mapping stressors to identity provides a standardized analytic tool when working with salutogenesis.

Table 6.5 *Stressors Identified in the Mapping Sentence Process*

Stressors Are Recognized & Identified		
FEAR (of)	LOSS (of)	EMOTIONS
Death	Energy	Shock of diagnosis
Being taken over by cancer	Independence	Uncertainty
Stigma, being different	No place to be yourself	Depression, sadness
Pain	Self	Guilt about getting cancer
Taking risks	Expectation of what you expected death to be	Guilt about impacting others
Thinking ahead	Connectedness, friends, work	Constant vigilance and anxiety
	Comfort in roles	
	Ability to contribute	

Stressors can also be categorized into three broad categories when working with communities or teams where there is general consensus of stressors that are common and the ability of resources to meet the challenges of common stressors:

- Chronic stressors (e.g., a disability)
- Main life events (e.g., death of a family member)
- Daily hassles (e.g., an argument at work)

The mapping sentence helps to manage the essential link between stressors and resources in academic qualitative research, action research, citizen science, community-based participatory research, and social enterprise.

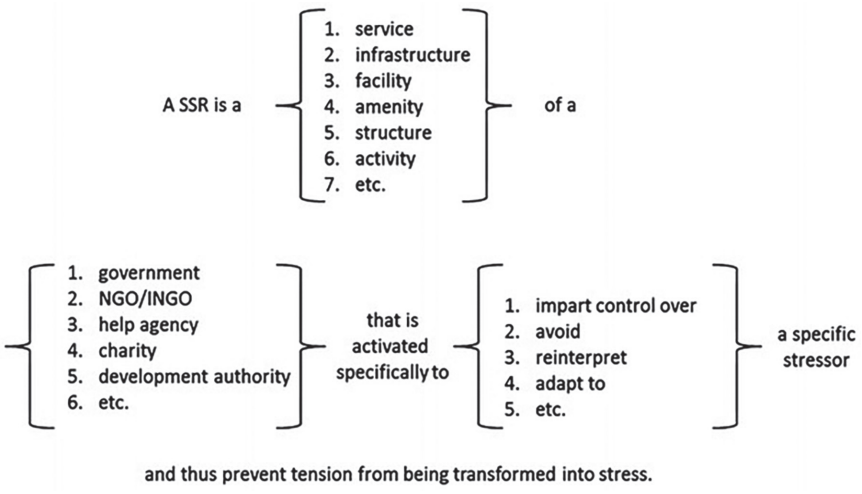
When learning to use stressors in health research, it is important that we, as researchers, consider our own experience with stressors. We need to consider what we had been taught or how we were reinforced or punished for talking about stress. Stress in biomedical medicine tends to be a characteristic of the patient, but in real life, stress operates at all levels, as seen in the mapping sentence. This is important because it will sensitize us to the stressors that emerge from systemic discrimination and chronic untreated health-related problems. When preparing a mapping sentence with the population you are working with, be sure to notice how we deal with common stressors that manifest according to our disciplines and professional experience. Also important to salutogenic research are the hidden contexts that define cultural or program-based experience of stressors. We tend to pathologize individual stressors while considering program or treatment stressors as a natural part of doing business.

When training peer researchers, the study of stressors can be initiated using categories that begin at the individual level and progress to policy levels, depending on the ecology of the programs or policies related to the topic being studied. You can brainstorm the resources at each level and define stressors from individual to system and societal levels. This can then be used to identify potential or actual resources that are available at each level. This is an excellent exercise to build solidarity and an understanding of how stressors and resources are rich sources of data at all levels and how they relate to each other.

Mapping Resistance Resources

We now shift from the concept of mapping sentences to understand the impact of stressors to how to understand how resistance resources manage stressors at all socioeconomic levels. The mapping sentence in Figure 6.5 is a general format that can be adapted at individual, program and system levels. It is the theoretical version of the mapping sentence above. The program specific resource in the diagram below, that can be used to capture how resources impact specific stressors. This is particularly useful with peer research within social organizations that create new roles, relationships and resources to increase a sense of coherence.

Figure 6.5 *Mapping Sentence for Program-Specific Resources*



Note: Source: Mittelmark et al. (2017a, https://www.ncbi.nlm.nih.gov/books/NBK435842/)

The example above shows the type of mapping sentences used during the Wellspring study as described in the PaCER final report.

> When we returned to our data, we were able to uncover stressors by analyzing the program specific resources that were in place to counteract stressors that might arise. We shared the stressors we had discovered with members to confirm that indeed these were stressors. The following is one example. The sentence read: "The book of remembrance is a material characteristic of Wellspring as a peer community cancer wellness centre that is intended to neutralize the fear of dying by honoring members' lives."

The mapping sentence, as above, provided a way to use what we observed (the program resources being used by patients) to uncover the stressors involved that were difficult to see or hear. The following is an example of program resistance resources (PRR) in the study of Wellspring. This demonstrates how the analysis process of mapping sentences makes properties and themes visible. In Wellspring, these PRR fell into two general categories, 'a place to go' and 'give it a go.'

> **'A place to go'** identifies the program-specific resources that work at Wellspring:
>
> - **Sanctuary**: The building is the antithesis of a hospital or clinic, yet not a home or place of work.
> - **Sharing energy**: Many different opportunities to experiment with and practise physical, emotional, and spiritual energy programs and therapies. An essential antidote to the crushing loss of energy from cancer treatments.
> - **Humour and joy**: Provide a respite from the vigilance, fears, and stress and a chance to learn how to be happy again.
> - **Mortality and the silent presence of death**: Provides a chance to adapt and lessen the tension about dying. The natural presence of death becomes a resource for life.
>
> **'Give it a go'** describes how the resources are manifested through the actions of members:
>
> - **Accepting**: Accepting myself by being in a safe space and learning from others like me. This is where I can take my hat off.

- **Encouraging**: Reducing self blame through learning to encourage others and myself to try new things and make small steps to change.
- **Contribution**: We support each other and share tasks, and there comes a time to become a volunteer at Wellspring.
- **Self worth:** We achieve self worth; building new lives takes time and effort.

The beauty of the mapping sentence process is that it can be created at the individual, program, and generalized levels. Individual resistance resources are specific to individuals, a part of their arsenal of resisting the impact of stressors, such as fear of pets, opioid addiction, overeating, and accessing treatment. Program-specific resources are those developed by programs to serve the needs of a situational set of stressors, such as integrating children with health needs into regular classrooms and cancer wellness programs or clubhouse models for adults with mental health concerns. Generalized resources, on the other hand, are just that—they include social determinants of health such as access to after care, improving employment options, and basic health literacy in immigrant populations.

Using Stressors and Resources in Research and Practice

The materials presented above are based on the first level of understanding salutogenesis—the study of stressors and resistance resources, and the interactions between them. These processes were used during the interpretation sessions to increase our ability to understand and make sense of how Wellspring, as a peer-led support centre, worked. We were then able to work with members and the board to explore this unseen aspect of the program. In research, we can focus on reducing stress and deficits through building resources or we can study our practice to build patient and community capacity.

Building a salutogenic orientation in healthcare is very difficult, because most patients in primary and even continuing care seldom become part of health-based programming within the healthcare system. This means that they seldom can meet with others who share their experience or to think about their experience as knowledge that could be important to themselves and other patients. Emancipatory research can only be effective when patients and communities have the opportunity to share their stories of both the stressors involved in their healthcare and the resistance resources they experience, or could experience if the stressors were identified, studied with others, and subjected to research such as mapping sentences to analyze and overcome the impact of stressors at personal, program, and system levels.

If you have the option of introducing peer research and can study patient experience from their perspective, you build a window into experience that can be shared with staff and patients. This can be used to build patient and community capacity to foster collective action, which may include identifying the sources of power and systems that keep groups dependent and compliant. Peer research findings can be made available to patients and families who might otherwise be isolated.

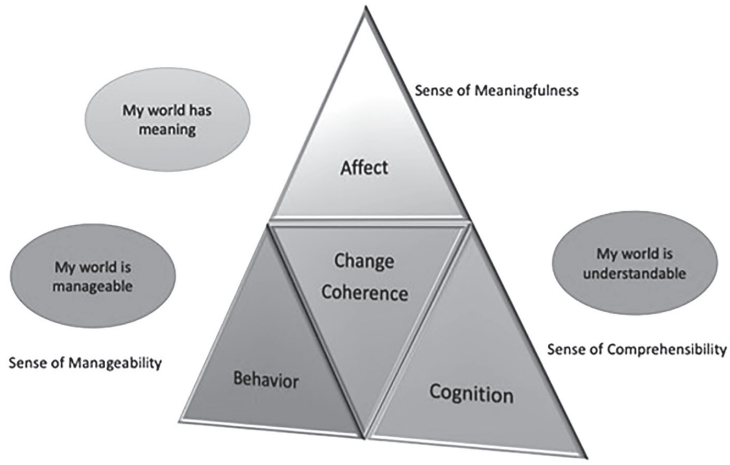
Building a Sense of Coherence

Now that we have some understanding of stressors and resources, we can move to the basic action of salutogenesis—building a sense of coherence (SoC). We begin with the idea that exposure to stressors is part of being alive. We can either choose to face a stressor or succumb to it and give it over to others who are professional to handle it. That is not to say that this provides an either/or decision. Both ends of the continuum need to be engaged. Salutogenesis creates a positive alternative to creating research related to patient experience. A stressor creates tension and disequilibrium that presents both options—confront the stress (salutogenesis) or consider the stressor as an illness for experts to figure out and resolve. In this section, we look at how salutogenesis moves the person toward health and wellness. We face each new stressor as a motivating tension that we can respond to. The response might move research toward salutogenesis or pathogenesis. In peer research we have noticed that this is not an either/or decision, but an organic and dynamic dance of healthcare that includes both clinical pathways and capacity-building pathways.

Sense of Coherence (SoC)

Figure 6.6 presents SoC as a conceptual combination of factors for change, confidence, and resilience. This diagram will guide the next section through the three elements of the triangle.

Figure 6.6 *The Basics of Salutogenesis as an Asset-Based Study of Health Experience*

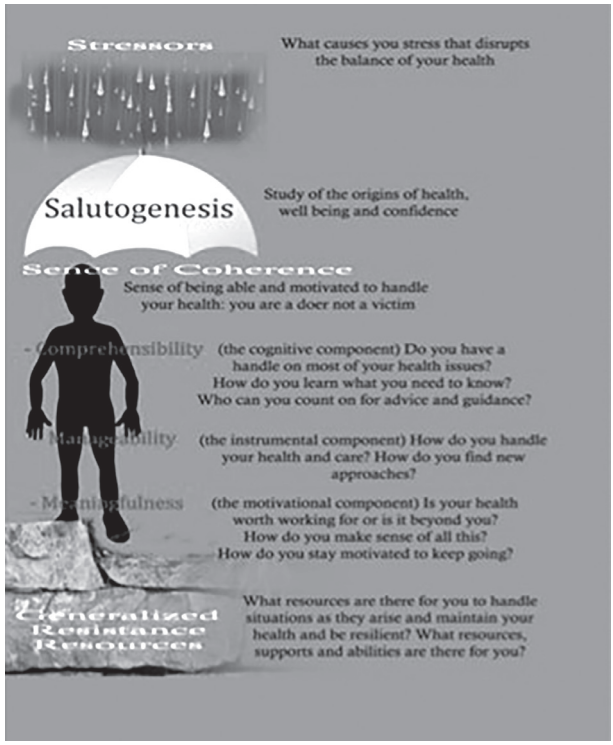


Note: accessed Nov 2021, internet diagrams of Sense of Coherence, no longer available

A definition of sense of coherence takes some time to digest. To begin, SoC is a general, pervasive, enduring, and dynamic feeling of confidence. This takes some time to unpack. First, SoC does not act externally so that you can see and measure it; it acts internally and influences action and readies our thinking toward positive action. This begins with our sense that action is possible because we have confidence, based on meeting and successfully challenging or reframing stressors in the past. It produces a feeling of safety, confidence, and resilience that life makes sense and it is possible to be healthy, in spite of health problems. This worldview suggests what can be known or done in the world, and, more importantly, how it can be known and done (Erikkson, 2016, https://www.ncbi.nlm.nih.gov/books/NBK435812/).

A strong SoC makes it possible to be flexible and creative in meeting challenges, whereas a weak SoC leaves people with emotional responses (avoidance, depression) and rigid coping strategies that most likely will defer to reliance on healthcare providers. If a person believes there is no reason to persist, survive, and confront challenges, then that person will not be motivated to move forward. Figure 6.7 is my amateur diagram, developed to depict salutogenesis as a person in action. A strong SoC suggests that individuals possess resources (such as social support and ego identity) that enable the person to cope with various kinds of stressful life events.

Figure 6.7 *Concept of Salutogenesis and How It Works*



This diagram begins with stressors that are as common as rain falling upon a hapless human. Fortunately, that person is standing on a resource platform that could help the person stay steady and resist the force of the raining stressors. The SoC is depicted as the umbrella that acts to help the person to stay dry enough to move forward to take the next steps. The three elements of SoC are internalized within the person.

A Conversation in Peer Research About the Three Properties of SoC

The following three properties of SoC enable us to take action:

1. When one's internal and external environments are structured, predictable, and can be understood. This is called **comprehensibility**.
2. When resources are available to cope with challenges. This is called **manageability**.

3. When demands and challenges are worthy of investment and engagement, and, in the process, gain meaning and purpose. This is called **meaningfulness.**
(adapted from Antonovsky, 1979)

These three properties can be measured in a simple SoC scale. While the three properties overlap in the analysis of the assessment tool, the three categories remain intact in practice. Eriksson and Lindström (2005, https://doi.org/10.1136/jech.2003.018085) provide a study of the validity of Antonovsky's SoC scale.

The following questions have been created for use in conversations as part of per research. These conversations are based on the situations that encourage the characteristics of comprehensibility, manageability, and meaning and are useful when exploring SoC within a narrative framework.

Comprehensibility: The Cognitive Skills That Help You Figure Things Out

Comprehensibility is the belief that things happen in an orderly and predictable fashion. This develops a sense that you can understand events in your life and reasonably predict what will happen in the future. This is the cognitive component of SoC. You have a better chance to be healthy when you:

- feel life is basically predictable—feel 'together';
- feel ready for what might happen in unfamiliar situations;
- understand how your body works;
- appreciate your environments; and
- understand your relationships.

You might have the following conversations about comprehensibility:

- *Can you understand most things, or do things in your life blindside you?*
- *Do you have a handle on your situation?*
- *How do you learn what you need to know to go forward?*
- *Do you know people you can count on to give you advice?*

Comprehension is the most widely understood aspect in healthcare. The following are some of the ways that comprehension is included in healthcare.

Patient education: SoC encourages a shift in focus from health literacy to patient agency, as part of patient education. Healthcare educators teach patients the information that healthcare professionals need them to know (the treatment and expected outcomes) to reduce patient anxiety. However, a study of patient education done by a PaCER team as a research contract, identified that patients generally want to know who they can contact when they are unsure of what the process is going to be like, how it will change their life and the resources they will need rather than the information that nurses and social workers might suggest (Choudhury et al., 2020, https://doi.org/10.1177/0017896920911690).

Information age medicine: While patients are provided approved information by healthcare professionals, this is only one perspective of the information available. One can also learn from peers who have been through the process and experts from around the world. It is possible to be misled and to spend money on products that promise impact without any evidence. In the near future, information age medicine will have to provide more detailed information that is relevant to patients about what the results mean for lifestyle and prognosis. It will create artificial intelligence of treatment options developed using thousands of cases.

Artificial intelligence (AI): As machine learning continues to improve, information on choices will provide expected outcomes and when to contact professionals. AI will mean that, if patients choose, they can use AI to treat themselves without the support and advice of their health professionals. To capitalize on this aspect of SoC, we need to provide stories to help patients and families understand how to use this new information and connect effectively with the doctor. The gap between what is known and what is safe and reasonable will need to be addressed directly in the near future, and it needs to be done with patient input.

Manageability: The Instrumental Component of Using Your Resources to Cope

This is the belief that you have the skills or ability, support, help, or resources necessary to take care of your personal health. It also means that your personal health is manageable and within your control. You have a better chance to be healthy when you:

- know that there are resources to help you;
- believe you have a right to seek them;
- understand and access resources; and
- believe you are capable of putting together a plan to understand and 'manage' things.

Conversations you might have:

- *Who do you call on to give you advice (family, faith, professionals, friends)?*
- *When have you had to try a new way to manage things?*
- *How do you know that you will be able to handle things that come up?*

We see examples of manageability in evidence-based medicine protocols. These condition-specific care plans are standardized as tools to ensure compliance. Healthcare fits patients into protocols and expects patients to follow these protocols. However, patients who have been coping and managing chronic and complex conditions are the ideal life experts in customizing and adapting care plans from a patient perspective.

Some of the advances in current healthcare related to increasing patient capacity to manage their healthcare include the following:

> **Buddy systems**: These pair new patients with experienced patients who are familiar with protocols and can support patients and families learn how to safely adapt or modify them. In similar ways, peer mentors in training research methods help those learning research skills to practice and apply skills and interpretation.
>
> **Wearables**: These track and interpret health data for patients during daily activities and health routines. These have become commonplace aids tracking steps, sleep, health indicators, and diabetes data. These will continue as medical technologies

specific to conditions greatly increase patient roles in coping with their health concerns. The current personal use, or use by insurance companies and patient data collectors, have pushed health upstream with incentives. Citizens are using data to become more engaged in their health and monitoring healthcare.

Adaptive technologies and implants: These are changing not only how we live but how we see ourselves. When adaptations are customized for user control, biomedical technologies from robots, exoskeletons, pacemaker implants, and a wide range of adaptive technologies increase independence and productive life years. The changes focus on coping but also connect us to resources automatically such as physicians, technicians, and emergency interventions.

Meaningfulness: Motivation and Purpose to Engage in Your Health and Healthcare

This belief is related to the feeling that health is important and worth the effort. This promotes the motivation to engage with your health and healthcare. You have a better chance to be healthy when you:

- are you prepared to make the effort to understand your health and health care;
- are motivated to take care of yourself and others;
- have a purpose in life; and
- are part of community or group that you contribute to.

Conversations you might have:

- *What makes your life worth living?*
- *Is it worth putting the effort into handling the problems that arise?*
- *How do you make sense of 'all this'?*
- *How do you stay motivated?*

Meaningfulness is a low priority in healthcare, although purpose and contribution are major factors in extended life years (whether people live or die after health diagnosis and treatment). An informal study by Statistics Canada included the SoC questionnaire in their study of a representative sample of Canadians, and it demonstrated that this short measure was a top-tier indicator of extended life years. Meaning and motivation denote a 'grey zone' of

health research that is addressed after 'accepted methods' fail or as part of the domain of traditional or cultural health practices.

While medical science informs discrete causes of illness, this reliance on discovering causes to find a cure or remediation has a number of significant drawbacks. We lose our belief that we can understand what makes us well or ill. If there is no identifiable cause, there is no treatment, and the person lies outside the perimeter of medicine. People expect science-based medicine to identify their problems and experts are responsible for making us well. Finally, people who have not made sense of their conditions have little appreciation or commitment to citizen roles in personal health, health of our communities, or global or planetary health.

We see this in the popularity of complementary and traditional medicine, which seems to reflect our personal values and philosophical foundations. Alternative and traditional medicine practices represent the need for a foundation of meaning about health. From the time of Hippocrates, there have been practical theories that explain health and the reason for illness. The boundary between modern scientific medicine and alternative and traditional medicine is increasingly blurred, as citizens search for ways to understand health and illness. It may be difficult to bridge the gap between efficient care to meaningful care.

The concept of meaning during an increasing reliance on digital technology must be addressed. If technologies are seen as an extension of the health systems through prescribing technologies that are standardized, we will see the perception of external control increase. Consequently, the goal of a patient-centric or controlled health will not be reached. Emancipatory goals can only be reached when patients are informed, data savvy, knowledgeable, and motivated, and this can only happen when they believe that they are seen as worthy of control and capable of using technology.

To understand future issues related to sense of coherence, you might look up Hochwälder (2019, https://doi.org/10.1177/2158244019846687).

Using Salutogenesis in Health Research and Practice

While salutogenesis is gaining traction in health promotion and prevention, as well as in program development and architecture, it is also a way to introduce asset-based approaches within medicine, and throughout all systems of health and well-being. To accomplish this, health research could include emancipatory peer research to include a salutogenic perspective as part of research teams. As systems are reconfigured, it is suggested that health systems might add salutogenesis to future planning resources. It is particularly important that healthcare practices should not undermine a person's SoC. Treatment should

instead attempt to support patient resilience by acknowledging patient research that identifies stressors as main concerns of populations to be understood in order to find personal and condition specific resources to assist patients, families, and communities to confront and learn from health-related interventions.

From a research perspective, we have seen how salutogenesis broadens the scope of research dramatically. It increases the scope of co-design studies by exploring stressors and resources and ensuring that the three aspects of SoC are explored. During research, these same concepts help categorize data and add to theory development. The many aspects of salutogenesis provide models for theory building in health.

Technology is becoming a new form of generalized resistance resource that will have great impact on how patients are able to cope with the stress of systems change and the reconfiguration of patient roles.

Summary

This chapter addresses the difference between individual measures of patient experience that reflect specific healthcare processes and patient expertise that informs social change and organizational concerns. The need to study patient experience and expertise from a positive or salutogenic perspective does not diminish the importance of a pathogenic model. Salutogenesis, however, is the most comprehensive and adaptable theory of citizen science and change-making. It has proven its capacity to guide and challenge peer research, while providing a theory base for patients and communities. This simplified version has been adapted to serve both academic and design thinking research and is relatively easy for patients to understand. The challenge may be selling this concept to researchers who see a salutogenic focus on asset-based research as outside of their remit to improve health care.

Questions for Discussion

The theory of salutogenesis provides a conceptual framework for understanding patient expertise. It involves the conscious decision of patients to challenge stressors by using existing resources and building new ones. We have identified several ways that salutogenesis can be used in peer research that suggest it is a theory not only for engagement but for action and social change.

The following questions may facilitate group discussion about using salutogenesis in peer research:

1. What theory do you use in your research or professional practice? Briefly describe so that others may share in your experience.

2. Where are you on the social ecology of health systems—the personal, program, or systems levels? Can you work with others to create an ecology of systems to define where your research or practice might fall?
3. What were the main aspects of salutogenesis that you found challenging and why?
4. Where do your clients or research participants gather on the continuum of health practices diagram?
5. How do you see using salutogenesis in your training?

Resources

Discourse Analysis: Using Salutogenesis as Part of Design Thinking

This section was created for Section 3 but is included here because it demonstrates a method for learning and using salutogenic theory to understand patient experience and inform qualitative peer methodology. This example has been contributed by Cera Cruise, a senior student in the Community Rehabilitation and Disability program. Her topic relates to citizens suffering from moral injury. Feel free to explore this data and analysis now or wait until you have completed Chapter 9 on systems theory.

This example is part of a salutogenic discourse analysis of a proposal for design thinking–informed innovation to address moral injury of frontline health workers.

The application of a salutogenic lens gave my proposed design thinking–informed innovation a measure of self-described patient progress and broke down the components of resilience, so that my innovation could be individualized to target the specific needs of patients. The aim of my innovation was to strengthen the SoC of patients using PRRs to assist patients in developing their senses of meaningfulness, comprehensibility, and manageability, in response to the stressor of a moral injury. Engaging in the salutogenic analysis gave me a more comprehensive understanding of what the stressors were, what resources were available to patients, and where gaps in treatment lay.

This excerpt of a casebook identifies online resources as part of three stages of healthcare: treatment and diagnosis; community inclusion; and peer and natural supports. In each resource, the student selected quotes that referred to stressors and generalized or program-specific resources and conducted a discourse analysis to identify the roles of patients and professionals.

Table 6.6 *Excerpt of a Casebook Identifying Online Resources as Part of Three Stages of Healthcare*

Data: Treatment and diagnosis (Nuckols, n.d., https://www.naadac.org/assets/2416/cardwell_nuckols_treatingmoral.pdf)	**Analysis**
"Many veterans were presenting with difficulties that were not sufficiently addressed in the fear and extinction-based frame that underlies exposure."	Resource: There's a recognized community of individuals facing similar stressors.
"They have seen the darkness within them and within the world, and it weighs heavily upon them."	Stressor: Resources need to be created to shine light on the darkness. The quote also shows that there is a lack of sense of meaningfulness about the incident.
"Mistake the foe for a friend, and perhaps die…Mistake a friend for a foe and die inwardly."	Stressor: All sense of coherence is gone, the individual with moral injury is regarded as the living dead.
"Spiritual healing results in worldview changes."	Resource: There is recognized potential for a sense of meaningfulness to be created out of the morally injurious situation, thus changing the worldview of the patient.
Summary: The patients being described in this system lack, from the perspective of a professional, a sense of coherence, thus explaining their ill-being. Using a salutogenic framework, professionals could prompt patients to share the meaningfulness and create a sense of manageability about the morally injurious incident in an honest fashion (i.e., not just giving the 'right' answers so that the professional can 'cure' them). From there, patients could share their resilience resources and work with the professional to build upon those resources.	

Table 6.6 (*continued*)

Data: Community inclusion Sources: Whole Health Medicine Institute, 2020, https://courses.wholehealthmedicineinstitute.com/whmi-whole-health-studies-course-202036086740 Rankin, n.d., https://lissarankin.com/doctors-are-suffering-from-moral-injury-whats-the-solution/ (Founder of WHMI)	**Analysis**
"Our courses, workshops, and training are designed to help you understand and apply a whole body medicine approach in your life and in your practice. We support practitioners in building a thriving healing practice."	Sense of manageability is created by knowing resources are available to support healthcare providers.
"The all-powerful mind can control your reality, and all you have to do is learn to harness it."	Resource: Healthcare practitioners already have the tools they need to change their reality. This program allows them to develop GRRs necessary to respond to the stressors that are created by the healthcare system.
"WHMI brings a deep and direct understanding of the body-mind-spirit continuum to physicians, nurses, health experts, and healthcare providers. We believe that this understanding is critical for complete and sustained healing and growth, and necessary to reveal the untapped resources and potential of your body."	Sense of comprehensibility is developed about the body-mind-spirit continuum so that healthcare providers have a deeper knowledge both of the causes of their moral injury and what they can do to resolve the internal anguish created by the injury.
Summary: Resources are contingent on participation in the program, which may have financial or time-related barriers (and therefore lack a sense of manageability). The main strategy of the program is to create a sense of comprehensibility for healthcare providers about what it means to heal others beyond just the physical.	

Table 6.6 (*continued*)

Data: Peer and natural support Source: Project Trauma Support, n.d., https://projecttraumasupport.com/peer-support-group/ (no longer active)	**Analysis**
"By the end of the cohort, I could talk about the deaths and still have joy in my heart. I am no longer in a nightmare. We have all gained knowledge on how to deal with our brains when all the negative tries to come in. To top it off, I have gained nine brothers who I know would be there for me whenever I need them. Nine warriors who shared all their sadness, only to have it all taken away together. By loving each other and helping each other tackle the darkness. It feels so amazing to have the old me back, ready to live, ready to dream, ready for tomorrow."	Resource of supportive individuals and control over negative thoughts/ stressors. A sense of meaningfulness and manageability has been created for the individual.
"I feel like taking care of myself is worth it. I better understand some of the barriers that were built in at a young age that are no longer useful to me."	Manageability and meaningfulness are ascribed to life by the individual. They recognize that some of their resistance resources are no longer useful.
"The groups are a fellowship of members who share their experience, strength and hope with each other."	Resource: Peers who accept each other. They contribute to a sense of meaningfulness in that new relationships and strengths are created.
Summary: Sharing their knowledge with those at risk of moral injury before injury occurs could give members of the group a sense of meaningfulness out of their experiences. It would also assist in creating resistance resources for others.	

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