

OPEN

Reflexive Spaces: Leveraging Resilience Into Healthcare Regulation and Management

Siri Wiig, PhD, MSc,* Karina Aase, PhD,* and Roland Bal, PhD†

Healthcare is increasingly seen as a complex, adaptive system in which resilience is a key factor in creating patient safety. A need exists to understand how organizations are able to perform with success under varying conditions, that is, to be resilient. So far, the attention in resilience research has been on the sharp end of the system, such as emergency departments and clinicians' adaptation of work practices to constantly varying conditions. However, we have limited knowledge about the role of regulators and managers in creating and supporting environments that cultivate resilience.^{1,2} In this article, we argue that (a) regulators and managers need to understand and acknowledge reflexivity as a foundation for resilience in healthcare organizations and that (b) creating and supporting reflexive spaces are a key for leveraging resilience into healthcare regulation and management.

RETHINKING SAFETY IN HEALTHCARE POLICY AND PRACTICE BY LOOKING AT RESILIENCE

Traditional approaches to patient safety are reactively oriented toward standardization, finding, and fixing adverse events. Through methods such as root cause analysis and error reporting, these approaches often end up establishing a new procedure or standard to prevent similar events from reoccurring. The main focus is on what goes wrong, with the purpose of reducing adverse outcomes.^{3,4} These approaches negatively define safety as the absence of error. Adverse events in healthcare continue to be a large societal challenge^{5,6} despite substantial advancements following the *To Err Is Human* report.^{7–10}

The lack of progress has resulted in the claim that traditional approaches alone are insufficient for understanding patient safety and need to be supplemented with alternative conceptualizations. Such approaches conceptualize safety as rooted in the complexity of a healthcare system and point out that failures and successes both originate from performance variability on individual and systemic levels. This has led scholars to propose resilience in healthcare as a way forward.^{11,12} Resilience in healthcare is positively defined as a proactive capacity of actors within healthcare systems to adapt to potentially harmful influences, challenges, and changes rather than to resist them, resulting in safe care. Resilience capacities involve aspects such as flexibility, anticipation, improvisation, adaptation, redundancy, monitoring, learning, and variability.^{11,13–19} This article further develops this perspective by reflecting on some of our previous research exploring resilience in different healthcare settings in which one aspect particularly stands out as unresolved and underresearched: What does resilience in healthcare mean for healthcare regulators and managers?

Perhaps some of the reason for the lack of research attention to regulation and management as potential sources of resilience is the critique of regulators and managers establishing too many rules, too much standardization, too much focus on resource allocation, and external control mechanisms for an adaptive system such as healthcare.^{20,21} Instead of looking at regulation and management as being contradictory to resilience,²² we argue that there is a need to discuss how we can stimulate resilience through regulation and management. Stimulating resilience can even be seen as central to changes in regulatory theory and practice that have evolved to more process-based types of regulation.^{23,24} Creating reflexive spaces to reconcile and bridge understanding between different healthcare stakeholders is key in this matter. By looking at examples from our previous research, we suggest that reflexive spaces offer one possible way forward to develop regulatory and managerial approaches with the purpose of leveraging the ideas of resilience into practice.

From the *SHARE-Centre for Resilience in Healthcare, Faculty of Health Sciences, University of Stavanger, Stavanger; and †School of Health Policy & Management, Erasmus University, Rotterdam, the Netherlands.

Correspondence: Siri Wiig, PhD, MSc, SHARE-Centre for Resilience in Healthcare, Faculty of Health Sciences, University of Stavanger, N-4036 Stavanger, Norway (e-mail: siri.wiig@uis.no).

The authors disclose no conflict of interest.

The study was supported by Improving Quality and Safety in Primary Care—Implementing a Leadership Intervention in Nursing Homes and Homecare' (SAFE-LEAD) study. The Grant Agreement Number 256681/H10 funded a 4-month mobility grant for S.W. to visit Erasmus University Rotterdam, the Netherlands, during spring 2019. The visit made it possible to write this article.

Copyright © 2020 The Author(s). Published by Wolters Kluwer Health, Inc. This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-No Derivatives License 4.0 (CCBY-NC-ND), where it is permissible to download and share the work provided it is properly cited. The work cannot be changed in any way or used commercially without permission from the journal.

REFLEXIVE SPACES—WHAT ARE THEY?

We conceptualize reflexive spaces as physical or virtual platforms in which reflexive dialogical practice occurs between people. The reflexive dialogical practice is key in learning processes, because it bridges tacit and explicit knowledge.²⁵ Reflexive spaces can bring people together to reflect on current challenges, adaptations, and needs in daily work practice. Reflexive spaces are forums inviting accountability and feedback on concrete practices and the effects they generate. They are collective in the sense that they mobilize experiences of relevant actors within and outside healthcare practices. Accountability within such spaces is generative in the sense that it adds to learning rather than curbing it.²⁶

Introducing different tools into existing reflexive spaces or for creating new ones can support both regulators and managers in healthcare to gain a more critically reflective understanding of their organization and their own possible influence on resilient performance. Possible tools may include storytelling, reflexive conversations, metaphors, critical incident analysis, reflective journals, repertory grids, and concept mapping.²⁷ Quantitative technologies, such as performance indicators or benchmarks, can also be used in such spaces, if they are used as “tin openers” rather than “controls.” Organizational structures, such as the morning round or multidisciplinary consultations, can also function as a reflexive space. Crucially, it is not so much the instrument or structure itself but the way it is embedded in organizational and regulatory relations that matters. The way regulators and managers potentially use such tools can stimulate articulation of tacit knowledge and critical reflection, which mediates between experience, knowledge, and action.²⁷ In practice, this means becoming more explicit and acknowledging performance variability and healthcare professionals’ adaptation, including the possible needs for updating procedures and standards to fit work practices. Moreover, this implies establishing arenas where professionals have allocated time to discuss patient safety, treatment options, patient cases, and share experiences. In line with research on psychological safety,²⁸ both regulators and managers need to stimulate an atmosphere where people dare to account for their experiences of work as done and also for when noncompliance with standards or regulations is a fact. Further investigation into reflexive spaces, psychological safety, and support tools is, therefore, a potential way to leverage resilience into healthcare regulation and management.

SUPPORT TOOLS TO CREATE REFLEXIVE SPACES FOR MANAGEMENT TEAMS

The SAFE-LEAD project²⁹ reports an example of using a support tool to create reflexive spaces. We developed and implemented a leadership guide for managers in nursing homes and homecare to facilitate critical reflection on their patient safety challenges.³⁰ The guide is a research-based tool oriented around seven common challenges that managers need to handle as part of their everyday patient safety work: structure, culture, engagement, competence, care coordination, external demands, as well as physical and technological environment.^{29,31–34} We implemented the guide by providing managers with the support of both a web-based and a printed version of the guide, videos of possible guide use, and workshops with management teams. The guide itself was a tool for individual and collective reflection, but it also generated new reflexive spaces when applied in the management teams over time. In these reflexive spaces, managers met with a joint purpose (discuss topics given in the guide), shared experiences on given patient safety challenges, and collectively established suggestions for development of new improvement efforts. The guide facilitated both physical gatherings of professionals and reflexivity toward clinical and organizational practices and

the actions required from them to support improvement. This illustrates increased reflexivity related to their own role in facilitating improvement and under which conditions improvement may occur. These findings are of relevance for understanding how healthcare managers can stimulate resilience using reflexive spaces and support tools to foster a new conceptualization of safe work practices.³⁰

REFLEXIVE SPACES IN THE INTERFACE BETWEEN REGULATORS AND REGULATED ORGANIZATIONS

Creating reflexive spaces in the interface between regulators and regulated organizations is a possible way to link regulation, management, and resilience. Our research on regulatory practices by the Dutch healthcare inspectorate provides examples for such an approach. Since the early 2000s, the inspectorate has used an approach to supervision known as “responsive regulation.”³⁵ This approach entails, among others, the inspectorate adjusting its style of supervision on the basis of the seriousness of risks imposed on patients and the healthcare providers’ willingness to manage these risks. The more serious the risk and the more unwilling a provider, the more punitive the regulatory approaches used. As part of this overall approach, the inspectorate has developed many more specific methods for risk-based supervision. For example, its use of performance indicators is explicitly targeted at using indicators as “tin openers” rather than “dials”³⁶; its supervision of adverse events starts from the premise that professionals and organizations should learn from, rather than be punished for, errors.³⁷ This means that both indicators and incident investigation are used to generate reflexive spaces where safety discussions take place within teams and between managers, healthcare professionals, and regulators. The indicator results or the investigation reports in themselves are not the main interest for the inspectorate—reflexivity is. The inspectorate has also developed methods for overseeing the governance of healthcare organizations as part of the responsive regulation approach. Our studies found these methods to be stimulating the “recoupling” of safety policies with other organizational processes³⁸ by creating spaces in the regulated organizations and between the organizations and the inspectorate that allow for both accounting for and learning from organizational practices.

To be responsive to the quality of reflexive processes, the inspectorate also increasingly uses “soft signals” to assess the capability and willingness of healthcare organizations and their managers to deal with patient risk.³⁹ These signals have diverse origins such as (patient) complaints, talks with staff during visits, social media, or “reading between the lines” of incident investigation reports. Rather than acting on such signals immediately, the inspectorate goes through a process of sense making, which includes putting the information in context with what else is known about the specific organization within the inspectorate, and—if deemed serious enough—asking the organization’s management to react. The return of this new and aggregated information with a request for response generates reflexive spaces within the regulated organization. A proper response would imply gathering relevant clinical and/or managerial personnel and sometimes also demonstrating engagement of patients and carers to clarify how incidents have been handled or how new procedures are developed to improve and prevent adverse events. Depending on the nature of the reaction, then, further measures are taken, usually a follow-up meeting. The goal of this approach is to leave the responsibility for safety as much as possible with the organization and management itself, while checking the capability and willingness of organizations to manage. “Trust, but assess trustworthiness” is key, and the established reflexive spaces depend on

these characteristics of trust, responsibility, and engagement to leverage resilience into regulation and management.

REFLEXIVE SPACES INVOLVING PATIENTS AND CARERS

Patient and carer involvement is high on the health policy agenda in relation to patient safety improvement, regulation, and resilience.^{40–45} Finding good ways to involve patients and carers is often challenging both for regulators and managers. Our recent studies have focused on patients and carers as important cocreators of resilience,^{43–46} documenting methods innovations in regulatory investigations^{43,44} and in hospital internal investigations of adverse events.⁴⁷ In Norway,^{43,44} one County Governor office, which is the healthcare inspectorate at the regional level, invited the next of kin who had lost a close relative in a fatal adverse event to meet with the inspectors to inform the legal investigation. The next of kin told their version of the story about the event and contributed their in-depth knowledge of healthcare practices to the inspectors. The meeting resulted in new information about the event, the involved healthcare personnel, and the organizing of the services. All these elements were vitally important for understanding the complex causality of the event and promoted the learning potential in resilience.^{43,44} The meeting created a reflexive space between the inspectors and the next of kin, aligning perspectives⁴² and providing new information. The study by Kok et al⁴⁷ in the Netherlands showed similar experiences as a result of the Dutch inspectorate's enforcement of a new regulation mandating healthcare organizations to involve patients and families in incident investigations. Interviews were usually used as the involvement method, and managers and incident investigators valued this engagement in the investigation, because it established a reflexive space for sharing information and verifying operational details. The managers also appreciated the Dutch inspectorate's emphasis on patient and carer involvement in investigations.⁴⁷

IMPLICATIONS FOR MANAGERS AND REGULATORS

From our studies of reflexive spaces in different contexts, including management teams in primary care, interactions across regulators and regulated organizations, and involvement of patient and carers, we see several ways forward to stimulate this reflexivity. We acknowledge that flexibility and self-organizing are important for such measures to be implemented with success, yet we suggest the following possible implications for managers and regulators:

- Regulators could develop process-based, responsive inspection methods aimed not at quality and patient safety regulation compliance but at how healthcare providers manage quality and safety. This could include stimulating dialogical activities in proactive regulatory practices, such as area surveillance, risk analysis, and standard setting and reactivity in investigations of adverse events or in inspection teams.
- Regulators could work toward enforcement strategies and standards setting with explicit expectations for involvement of healthcare professionals from the “sharp end,” patients, carers, and the regulated organizations. This could imply regulatory measurement of regulated organizations' and their managers' ability and willingness to use dialog-based involvement arenas.
- Managers could actively involve healthcare professionals, patients, and carers as sources of resilience and create arenas and methods for joint involvement in individual patient care, in teams around patients, and at the system level, for example, in internal incident investigation processes, plans, and policy making.

- Managers and regulators can use tools such as guides, checklists, indicators, and investigations as foundations for creating reflexive spaces that focus on discussion and learning in addition to the end products (investigation reports, reported indicator data, checklist completion rates).

CONCLUSIONS

Creating different constellations of reflexive spaces is, in our opinion, a foundation for promoting conditions that will cultivate resilient capacities in healthcare. In this article, we have given a set of examples and tips reflecting new managerial and regulatory approaches that stimulate, rather than curb, reflexive learning. Success in leveraging resilience into regulation and management requires to acknowledge, develop, and use reflexive spaces where people within and across organizations meet, share experiences, and create opportunities for learning. The characteristics of reflexive spaces are trust, dialog, respect, and a psychologically safe atmosphere. Tools can be applied to create such spaces that can combine accounting for and learning from practice. Further research should focus on how different regulatory contexts stimulate such spaces, how regulators and managers might use these approaches vis-à-vis more traditional punitive approaches, and what mechanisms underlie such new approaches.

ACKNOWLEDGMENTS

This article is based on our previous research on patient safety in a managerial and regulatory context. The authors thank the Research Council Norway for funding the ‘Improving Quality and Safety in Primary Care—Implementing a Leadership Intervention in Nursing Homes and Homecare’ (SAFELEAD) study under Grant Agreement Number 256681/H10, which made it possible to collaborate on the article. Further studies will be continued in the Norwegian research program Resilience in Healthcare (RiH) funded by the Research Council Norway under Grant Agreement Number 275367.

REFERENCES

1. Berg SH, Akerjordet K, Ekstedt M, et al. Methodological strategies in resilient health care studies: an integrative review. *Saf Sci*. 2018;110:300–312.
2. Berg SH, Aase K. Resilient characteristics as described in empirical studies on health care. In: Wiig S, Fahlbruch B, eds. *Exploring Resilience—A Scientific Journey from Practice to Theory*. Cham: Springer Open; 2019:79–89.
3. Hollnagel E. *Safety-I and Safety-II: The Past and Future of Safety Management*. Farnham: Ashgate Publishing Ltd; 2014.
4. Wears RL, Hollnagel E, Braithwaite J. *Resilient Health Care, Volume 2: The Resilience of Everyday Clinical Work*. Farnham: Ashgate Publishing Ltd; 2015.
5. Jha AK, Prasopa-Plaizier N, Larizgoitia I, et al. Patient safety research: an overview of the global evidence. *Qual Saf Health Care*. 2010;19:42–47.
6. Baines R, Langelaan M, de Bruijne M, et al. How effective are patient safety initiatives? A retrospective patient record review study of changes to patient safety over time. *BMJ Qual Saf*. 2015;24:561–571.
7. Institute of Medicine. *To Err Is Human. Building a Safer Health System*. Washington: National Academy Press; 2000.
8. Mitchell I, Schuster A, Smith K, et al. Patient safety incident reporting: a qualitative study of thoughts and perceptions of experts 15 years after ‘To Err is Human’. *BMJ Qual Saf*. 2015;25:92–99.
9. Pronovost P, Ravitz AD, Stoll RA, et al. Transforming patient safety. A sector-wide systems approach. Report of the WISH Patient Safety Forum 2015. In: *World Innovation Summit for Health*. 2015.

10. Bates DW, Singh H. Two decades since to err is human: an assessment of Progress and emerging priorities in patient safety. *Health Aff (Millwood)*. 2018;37:1736–1743.
11. Hollangel E, Braithwaite J, Wears R, eds. *Delivering Resilient Healthcare*. Oxon: Routledge; 2018:6–10.
12. Hollnagel E, Braithwaite J. The need for a guide to deliver resilient health care. In: Hollangel E, Braithwaite J, Wears R, eds. *Delivering Resilient Healthcare*. Oxon: Routledge; 2018:6–10.
13. Righi AW, Saurin TA, Wachs P. A systematic literature review of resilience engineering: research areas and a research agenda proposal. *Reliability Eng Sys Saf*. 2015;141(suppl C):142–152.
14. Patriarca R, Bergström J, Di Gravio G, et al. Resilience engineering: current status of the research and future challenges. *Saf Sci*. 2018;102:79–100.
15. Weick KE, Sutcliffe KM. *Managing the Unexpected. Assuring High Performance in an Age of Complexity*. San Francisco: Jossey-Bass; 2001.
16. Pettersen KA, Schulman PR. Drift, adaptation, resilience and reliability: toward an empirical clarification. *Saf Sci*. 2019;117:460–468, <http://dx.doi.org/10.1016/j.ssci.2016.03.004>.
17. Gould Pettersen. Precursor resilience in practice – an organizational response to weak signals. In: Wiig S, Fahlbruch B, eds. *Exploring Resilience-A Scientific Journey From Practice to Theory*. Cham: Springer Open; 2019:51–58.
18. Hollnagel E, Braithwaite J, Wears RL. *Resilient Health Care. Ashgate Studies in Resilience Engineering*. Farnham: Ashgate Publishing Ltd; 2013.
19. Wiig S, Fahlbruch B, eds. *Exploring Resilience. A Scientific Journey from Practice to Theory*. Cham: Springer Open; 2019.
20. Grote G. Leadership in resilient organizations. In: Wiig S, Fahlbruch B, eds. *Exploring Resilience. A Scientific Journey from Practice to Theory*. Cham: Springer Open; 2019:59–69.
21. Macrae C. Reconciling regulation and resilience in healthcare. In: Hollangel E, Braithwaite J, Wears R, eds. *Resilient Health Care*. Boca Raton: Springer; 2013:111–123.
22. Smagrus A. Safety-I, safety-II and burnout: how complexity science can help clinician wellness. *BMJ Qual Saf*. 2019;28:667–671.
23. Gilad S. It runs in the family: meta-regulation and its siblings. *Regul Governance*. 2010;4:485–506.
24. van Erp J, Wallenburg I, Bal R. Performance regulation in a networked healthcare system: from cosmetic to institutionalized compliance. *Public Admin*. 2018;1–16.
25. Cunliffe A. Reflexive dialogical practice in management learning. *Manag Lear*. 2002;33:35–61.
26. Jerak-Zuiderent S. Accountability from somewhere and for someone: relating with care. *Sci Cult*. 2015;24:412–435.
27. Gray DE. Facilitating management learning: developing critical reflection through reflective tools. *Manag Learn*. 2007;38:495–517.
28. Edmondson A. *The Fearless Organization: Creating Psychological Safety in the Workplace for Learning, Innovation, and Growth*. New Jersey: Wiley; 2019.
29. Wiig S, Ree E, Johannessen T, et al. Improving quality and safety in nursing homes and home care: the study protocol of a mixed methods research design to implement a leadership intervention. *BMJ Open*. 2018;8:e020933.
30. Johannessen T, Ree E, Strømme T, et al. Designing and pilot testing of a leadership intervention to improve quality and safety in nursing homes and home care (the SAFE-LEAD intervention). *BMJ Open*. 2019;9:e027790.
31. Bate P, Mendel P, Robert G. *Organizing for Quality: The Improvement Journeys of Leading Hospitals in Europe and the United States*. London: Radcliffe Publishing; 2008.
32. Jones L, Pomeroy L, Robert G, et al. How do hospital boards govern for quality improvement? A mixed methods study of 15 organisations in England. *BMJ Qual Saf*. 2017;26:978–986.
33. Jones L, Pomeroy L, Robert G, et al. Explaining organisational responses to a board-level quality improvement intervention: findings from an evaluation in six providers in the English National Health Service. *BMJ Qual Saf*. 2019;28:198–204.
34. Anderson JE, Burnett S, Robert G, et al. Translating research on quality improvement in five European countries into a reflective guide for hospital leaders: the ‘QUASER hospital guide’. *International J Qual Health Care*. 2019;1–10.
35. Ayres I, Braithwaite J. *Responsive Regulation: Transcending the Deregulation Debate*. Oxford: Oxford University Press; 1992.
36. Berg M, Meijerink Y, Gras M, et al. Feasibility first: developing public performance indicators on patient safety and clinical effectiveness for Dutch hospitals. *Health Policy*. 2005;75:59–73.
37. Leistikov I, Mulder S, Vesseur J, et al. Learning from incidents in healthcare: the journey, not the arrival, matters. *BMJ Qual Saf*. 2017;26:252–256.
38. de Bree M, Stoopendaal A. De- and recoupling and public regulation. *Organ Stud*. 2018;21:017084061880011. doi: 10.1177/0170840618800115.
39. Wallenburg I, Kok J, Bal R. Omgaan met Soft Signals in het Toezicht: Signaleren. Interpretieren en Duiden van Risico's in de Zorg door de IGT. Retrieved from Rotterdam: 2019.
40. Renedo A, Marston CM, Spyridonidis D, et al. Patient and public involvement in healthcare quality improvement: how organizations can help patients and professionals to collaborate. *Public Manag Rev*. 2015;17:17–34.
41. Adams SA, van de Bovenkamp H, Robben P. Including citizens in institutional reviews: expectations and experiences from the Dutch Healthcare Inspectorate. *Health Expect*. 2013;18:1463–1473.
42. Bouwman R, Bomhoff M, Robben P, et al. Is there a mismatch between the perspectives of patients and regulators on healthcare quality? A survey study. *J Patient Saf*. 2017; 00(00): published ahead of print.
43. Wiig S, Haraldseid C, Zachrisen RT, et al. Next of kin involvement in regulatory investigations of adverse events that caused patient death: a process evaluation (part I – the next of Kins' perspective). *J Patient Saf*. 2019; (In press).
44. Wiig S, Schibevaag L, Tvede Zachrisen R, et al. Next-of-kin involvement in regulatory investigations of adverse events that caused patient death: a process evaluation (part II: the inspectors' perspective). *J Patient Saf*. 2019; (In press).
45. O'Hara JK, Aase K, Waring J. Scaffolding our systems? Patients and families 'reaching in' as a source of healthcare resilience. *BMJ Qual Saf*. 2018;28:3–6.
46. Bergerod IJ, Braut GS, Wiig S. Resilience from a stakeholder perspective: the role of next of kin in cancer care. *J Patient Saf*. 2018; 00(00):publish ahead of print.
47. Kok J, Leistikov I, Bal R. Patient and family engagement in incident investigations: exploring hospital manager and incident investigators' experiences and challenges. *J Health Serv Res Policy*. 2018;23:252–261.