





CREATING CONDITIONS FOR INNOVATION IN A COMPLEX HEALTH SYSTEM: A MANAGEMENT PRACTICE ANALYSIS

Sharon Mickan

Mosaic Health Consulting, Australia

Correspondence: sharon.mickan@mosaichealthconsulting.com.au

INTRODUCTION

As extended lifespans, rapid technological evolution and rising public expectations are increasing the complexity of our healthcare systems, health leaders need to innovate to gain sustainable improvements [1]. However, the aspiration of innovation is very different from its actual implementation. Traditionally, health systems prioritise operational efficiency and standardised practices to ensure patient safety. While essential, these priorities can inadvertently limit the flexibility required for innovation [2]. Leaders are therefore challenged to balance these operational needs with the desire to explore new ideas and solutions [3].

This Management Practice Analysis will summarise insights from the business literature and demonstrate how health leaders can create conditions for innovation, using a leadership case study from current practice.

LEADING INNOVATION

At its core, innovation describes the process around the application of new or different ideas that address an important problem and generate valuable outcomes. Most commonly, in healthcare, innovation refers to introducing products and/or adapting processes [3].

Innovation is often described by business researchers as the appropriate leadership response to increasing complexity [4]. Professor Mary Uhl-Bien describes innovation emerging from the way people interact within unpredictable and interconnected systems. When leaders encourage collaboration among people with different ways of thinking, professional backgrounds, and expertise, this helps everyone better understand the problem and come up with a wider range of potential solutions. As leaders recognise and balance the tensions between stability and change, they encourage experimentation within a structured framework. Innovation therefore develops in an adaptive space in organisations, between operational and entrepreneurial domains [5].

Professor Linda Hill argues that leading innovation is about harnessing collective genius through collaborative problem-solving, rather than crafting a vision and inspiring others to follow it. In this way, the group defines the important problem, and leaders facilitate the process of releasing creative agility to test and refine possible solutions. In these situations, leading innovation can be challenging as leaders don't have all the answers, but they need to create a safe environment that balances constructive disagreement with mutual support. Specifically, leaders can foster innovation, through cultivating a shared purpose, explicitly communicating values, and establishing clear rules of engagement. These elements create an atmosphere where individuals feel motivated and supported to contribute their unique talents, or 'personal genius' [6].

THE PROBLEM OF ENGAGING CLINICIANS IN RESEARCH

An opportunity to lead innovation emerged when I was tasked with supporting clinicians' interest and engagement in research, as I moved into an inaugural research leadership position for a large regional health service. I discussed the extant research evidence that engaging clinicians and organisations in research could improve organisational performance, patient outcomes and staff satisfaction, with allied health leaders and health service executives (7,8). There was agreement that limited engagement of allied health clinicians in research activities was an important problem. Therefore, I set out to clarify the extent of allied health clinicians' engagement in research, while also considering valuable outcomes for clinicians, their patients and the organisation [9].

CASE STUDY - LEADING INNOVATION

This case study summarises the way in which I approached this 'important problem'. I have explained my actions in relation to six key principles, that have been informed by the previous two business researchers [5, 6].

1. CLARIFY SHARED PURPOSE AND VALUES

I facilitated discussion within a multidisciplinary group of embedded allied health researchers and research interested clinicians to understand how to support clinician peers to understand and use research to enhance their clinical practice. We quickly agreed on a shared purpose of promoting evidence-based healthcare throughout the healthcare organisation. Everyone was aware of the potential benefits to patients and the organisation of using high quality research evidence. This shared purpose was also consistent with organisational priorities and expectations of my role.

However, there was robust discussion about how to do this. There was no clear best way forward. The research evidence was limited and within the group, there were different perspectives about things we could and should do. I recognised that we were experiencing the uncertainty and ambiguity of a complex health system and that my leadership needed to reflect this.

2. CREATE A COMMUNITY WHERE INDIVIDUALS ARE WILLING AND ABLE TO INNOVATE

Rather than creating a vision, and inspiring others to execute it, I focussed on creating a psychologically safe space with clear rules of engagement. I aimed to create a culture that could support innovation, by ensuring we were all willing and able to innovate. Individuals must feel safe to share ideas, take risks, challenge conventional thinking and learn from failures. I recognised that researchers and clinicians had limited and inconsistent experience of being expected or encouraged to solve problems and innovate. Most of them did not see innovation as a part of their job. I knew it would take time to build trust and respect to do this. Therefore, I encouraged safe spaces for sharing diverse expertise and differing points of view and allowed time for experimentation and progressive learning.

To complement the safe and supportive culture, I also created an adaptive space, that was distinct from operational workspaces. I created a hub of hot desks and established formal and informal communication schedules to discuss new ideas and explore different ways of working together. We created our own meetings and work schedules and reported progress regularly to clinician and management peers. This structured environment reinforced the innovative culture, where people felt safe to experiment and try new things.

3. PROVIDE CLEAR RULES OF ENGAGEMENT

Building on the shared purpose and safe environment for discussion, I needed to provide clear rules of engagement, that allowed both time and resources to engage in innovation projects. Total freedom to discuss and debate would never generate the valuable outcomes that were expected of successful innovations.

Within the multidisciplinary group of embedded researchers, we utilised, and role modelled our research skills to co-design an implementation study where embedded 'research fellows' would support interested clinicians to participate in local research projects. We utilised the emerging evidence for knowledge brokering skills to inform the support options provided by research fellows. We developed a logic model to describe how we would operationalise our activities [9].

Therefore, the research design, which we all contributed to, provided clear rules for research fellows to engage with and support allied health clinicians. We incorporated our shared purpose and values in designing these practical ways of working.

4. ENSURE SUFFICIENT TIME AND RESOURCES TO ENGAGE IN INNOVATION PROJECTS

It is often very difficult in busy and hierarchical organisations to safeguard time and resources for interested individuals to engage in innovation projects. Like research activities, innovation cannot be sustainably implemented in clinicians' own time. This is where a key challenge presents itself, for leaders to explore creative ways to work within current budgets to enable innovation projects.

I was able to use the research study to safeguard an innovation project. This implementation research was funded to provide research fellows and interested clinicians time and resources to work together. I enabled open and honest discussion, and we developed clear processes to document and record this work. Regular meetings and discussion supported careful formal and informal monitoring.

5. EXPERIMENT WITH BEST SOLUTIONS

While research fellows were allocated to work with interested clinicians, they had autonomy to develop individualised meeting schedules and research goals with each clinician. They generated new and different ideas through critical and constructive conversations with each clinician. There were many competing priorities for busy clinicians, and it was important for research fellows to listen to and respect different perspectives about participating in research.

My role was to facilitate the creativity between research fellows and clinicians, while maintaining compliance to the structured framework of the research study. Over time, research fellows experimented with different strategies to encourage research participation. Together, we discussed what worked well and not so well and everyone learned from these experiences.

Within the time frame of the research study, research fellows described making adaptations to keep each clinician participating in their local research project, within their unique work context and expectations. Through regular reflection and discussion, I role modelled and supported creative decision making, in order to navigate these challenges.

6. IMPLEMENT INTEGRATED OUTCOMES

Implementation science theories and strategies were used within this project to determine effective outcomes and processes that enabled clinicians to participate in local research projects. I ensured that all clinicians were able to demonstrate positive impact for their peers and their patients. I also ensured that research fellows documented the way they progressively utilised a range of successful knowledge brokering strategies to engage clinicians in research. Together we closed the loop on publishing our results, so that future clinicians and researchers can be better informed (10).

DISCUSSION

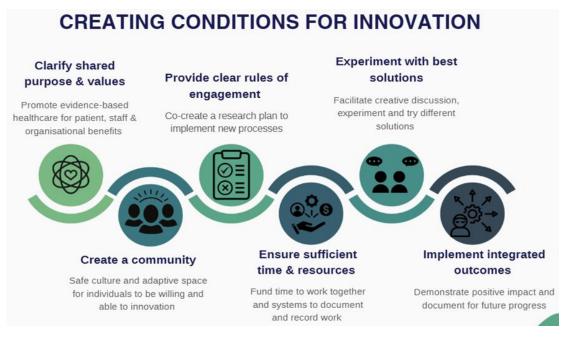
This Management Practice Analysis highlights that creating conditions for innovation in complex health systems is not only possible, but essential for addressing important problems in a sustainable and responsive manner. Leaders can play a pivotal role in defining a clear purpose and shared values, fostering safe and adaptive spaces, and balancing operational needs with experimentation.

This contemporary case study has demonstrated that insights from the business literature can guide health leaders and their teams to participate and engage in the process of innovation, as they adapt to complex and dynamic situations. An opportunity to lead innovation emerged when there was no clear solution to the important problem of engaging clinicians in research. The following six key principles were synthesised from the business literature and applied in practice.

- 1. Clarify shared purpose and values
- 2. Create a community where individuals are willing and able to innovate
- 3. Provide clear rules of engagement
- 4. Ensure sufficient time and resources to engage in innovation projects
- 5. Experiment with best solutions
- 6. Implement integrated outcomes (see Figure 1)

In practice, health leaders who cultivate adaptive spaces and adopt complexity principles position their organisations for continuous learning and growth through innovation. By applying business strategies, leaders can encourage the constructive resolution of tensions across multiple stakeholder perspectives and ultimately enhance healthcare services and patient outcomes.

Future research and application are needed to develop health specific strategies for implementing adaptive spaces within complex healthcare systems. Additionally, investing in leadership development will be critical to ensure leaders and their teams have the attitudes and capabilities to lead and support innovation within their busy organisations.



CONCLUSION

Creating conditions for innovation in complex health systems requires a different leadership approach. Importantly, health leaders can create conditions for critical and constructive conversations, with all stakeholders, and support creative agility and experimentation to creatively address important problems and generate valuable outcomes.

Establishing adaptive spaces between entrepreneurial and operational systems where experimentation can occur can transform how health leaders approach innovation. This structured roadmap balances the practical needs of healthcare operations, and the creative processes required for transformative change. As leaders create conditions for and actively lead innovation, they can inspire and implement meaningful change, making health systems more resilient, responsive and patient centred.

References

- Flessa S, Huebner C. Innovations in Health Care—A Conceptual Framework. Int J Environ Res Public Health. 2021 Jan;18(19):10026.
- On the barriers to significant innovation in and reform of healthcare - Gorman - 2015 - Internal Medicine Journal - Wiley Online Library [Internet]. [cited 2024 Nov 30]. Available from: https://onlinelibrary.wiley.com/doi/10.1111/imj.12775

- DeWolf L. Understanding Innovation in Healthcare. J Healthc Qual JHQ. 2009 Feb;31(1):3.
- 4. Herzlinger R. Why innovation in health care is so hard. Harv Bus Rev [Internet]. 2006 May 1 [cited 2024 Nov 30]; Available from: <u>https://www.semanticscholar.org/paper/Why-innovation-in-health-care-is-so-hard.-Herzlinger/b46cd50777921be1dfe28a4c780cf0c6ecea</u> <u>2557?utm_source=consensus</u>
- Uhl-Bien M. Complexity Leadership and Followership: Changed Leadership in a Changed World. J Change Manag. 2021 Apr 3;21(2):144–62.
- 6. Hill LA, Brandeau G, Truelove E, Lineback K. No longer casting themselves as solo visionaries, smart leaders are rewriting the rules of innovation.
- Jonker L, Fisher SJ, Dagnan D. Patients admitted to more research-active hospitals have more confidence in staff and are better informed about their condition and medication: Results from a retrospective crosssectional study. J Eval Clin Pract. 2020;26(1):203–8.
- Harding K, Lynch L, Porter J, Taylor NF. Organisational benefits of a strong research culture in a health service: a systematic review. Aust Health Rev. 2016 Apr 14;41(1):45–53.
- Mickan S, Wenke R, Weir K, Bialocerkowski A, Noble C. Strategies for research engagement of clinicians in allied health (STRETCH): a mixed methods research protocol. BMJ Open. 2017 Sep 1;7(9): e014876.

 Mickan S, Wenke R, Weir K, Bialocerkowski A, Noble C. Using knowledge brokering activities to promote allied health clinicians' engagement in research: a qualitative exploration. BMJ Open. 2022 Apr 1;12(4): e060456.