ACADEMIA Letters

Organization Science and Implementation Science: Working these together to enhance impact

David Rosenbaum Associate Professor Elizabeth More Professor

The relatively new field of Implementation Science is generally acknowledged as grounded in the need to reform health systems, reflecting concerns over health innovations and effective translation into patient practice and benefits (Damschroder, 2019). The older field of Organization Science, focussed on strategy, management and organization theory, has generally concentrated more, as in the classic scientific management work of Taylor (1909), and the still dominant Kotter (1996) model, on for profit rather than non-profit organizations, reflecting concerns focussed on increasing commercial effectiveness and enhancing shareholder value. The notion of innovation, implementation and sustainability of practice in both, mirror the classic and well used Lewin's (1951) three step model of change – popularly explained as unfreezing, changing and refreezing, yet incorporating more complex dimensions of action research and group dynamics and force field analysis.

Both approaches are unsurprisingly much more complex, though they reveal that complexity by similarly carrying out empirical work grounded within a range of theories, models and frameworks, or using these as renewed over time to dictate practice in professional settings. These 'tools' have been ably defined by Nilsen (2015:2 and 2020) and encapsulate both Organization and Implementation Science:

"... generalized theories are broad statements that provide a lens by which to ground approaches for studying implementation [organization change management] ... Models are narrower in scope than frameworks or generalized theories but should be grounded within them. Frameworks provide a foundation ... for developing measures ... and explanatory models or models of change ... Frameworks and models are bridges for connecting findings across

Academia Letters, June 2021 ©2021 by the authors — Open Access — Distributed under CC BY 4.0

diverse studies because they provide common language, definitions, foundations for measurement and assessment, and building generalized theories."

Frameworks have predominated in Information Science, whilst in Organization Science theories and models have been dominant, although not to the exclusion of frameworks, especially recognising today's increased complexities (Damschroder, 2019; Rosenbaum and More, 2020). Nevertheless, it appears that Rogers' Theory of Diffusion of Innovations (2003) has played a pivotal role in both, demonstrating an interconnectedness in approach. Both also focus on identifying barriers and facilitators to implementation, and developing strategies to overcome barriers, although from differing perspectives (Bauer and Kirchner, 2019, 3).

Recently, Nilsen (2015: 7; Nilsen and Bernhardsson, 2020) highlights the growing interest in Implementation Science of using organizational level theories, acknowledging the importance of context and organisational influences, such as culture and leadership in the implementation process. This is well reflected in a range of publications emerging from Information Science such as those by Weiner (2009), Aarons et al (2015), Leeman et al (2019), and Haines and Birken (2020).

Considering the overlapping attributes of each of these fields of research and application, it becomes apparent that by expanding their reach beyond narrowly defined boundaries that may also appear as mutually exclusive, there are potential advantages for both. Implementation Science may attract a more widespread base of applications, whilst change management applications in Organization Science may prove more successful than what extant research has indicated as potential failure rates of upwards of 70% (By, 2005).

A range of characteristics of Organization Science and Implementation Science could be considered relevant to wide-ranging applications and environments, as we have discovered during our current research into the change management implications associated with the implementation of the Australian National Disability insurance Scheme amongst nonprofit disability service providers.

Below we identify these characteristics and indicate how these may be relevant from an applications perspective, centered on issues around change management - Organization Science vs. Implementation Science:

Origins

Grounded in social and behavioural sciences *vs*. Grounded in clinical research and practice and a focus on implementation.

Change management can be approached from a deep research perspective, whilst the clinical research and practice can be impacted by the interplay with social and behavioural sci-

Academia Letters, June 2021 ©2021 by the authors — Open Access — Distributed under CC BY 4.0

ences. Such an approach may enhance research as well as bridging the research/practice divide in a wide range of management applications.

Success criteria

Success viewed from the perspective of effectiveness, efficiency, and performance within diverse organizations and sectors *vs.* Success viewed from the perspective of effectiveness, efficiency, and performance within diverse organizations and sectors.

Success viewed from the perspective of effectiveness, efficiency, and performance within diverse organizations and sectors.

Outcome focus

Focus given to specific mechanisms of change *vs*. Focus on the factors relevant to implementation.

Change management must incorporate important issues of implementation to ensure that academic research and practitioner focus are better aligned.

Basis of application

Reliance on established theories and models *vs*. Reliance placed on the establishment of frameworks.

Change management frequently represents an approach that is not entirely reflective of a procedural process with pre-determined outcomes. Rather, change may also follow a framework that guides strategic and operational imperatives that necessitate flexible approaches to wide-ranging unforeseen circumstances. Integrating Organisational and Implementation Science provides potential for better processes in achieving desired organisational outcomes.

We acknowledge differences and similarities between the two fields and highlight the prospects for Information Science with regards the subbranch of Organization Science, namely – Organization Change Management, referencing our recent research work on change management in the non-profit sector with the introduction of Australia's National Disability Insurance Scheme (Rosenbaum and More, 2021). Future organisational research involving change management should consider the application of both Organization and Implementation Science to determine the extent to which research and practitioner outcomes are enhanced.

Academia Letters, June 2021 ©2021 by the authors — Open Access — Distributed under CC BY 4.0

References

- Aarons, G.; Ehrhart, M.; Farahnak, L.; et al, 2015, "Leadership and organizational change for implementation (LOCI): a randomized mixed method pilot study of a leadership and organization development intervention for evidence-based practice implementation," *Implementation Sciences*, vol 10:11, pp. 1-12.
- Bauer, M. S., & Kirchner, J. (2020). Implementation science: what is it and why should I care? *Psychiatry research*, 283, 112376.
- By, R. T. (2005). Organisational change management: A critical review. *Journal of change management*, 5(4), 369-380.
- Damschroder, L. 2020, "Clarity out of chaos: Use of theory in implementation research", *Psychiatry Research*, 283, 11246, pp. 1-6.
- Haines, E. and Birken, S., 2020, "Organizational perspectives in implementation science," Chapter 19 in Nilsen, P. and Bernhardsson, S., eds., 2020, *Handbook on Implementation Science*, London, Edward Elgar Publishing.
- Kotter, J., 1996, Leading Change, Brighton, MA: Harvard Business School Press.
- Leeman, J.; Baquero, B.; Bender, M; et al, 2019, "Advancing the use of organization theory in implementation science," *Implementation Science*, vol. 129, supplement.
- Lewin, K., 1951, Field Theory in Social Science, New York: Harper-Collins.
- Nilsen, P. 2015, "Making sense of implementation theories, models and frameworks," *Implementation Science*, 10:53, pp. 2-13.
- Nilsen, P. and Bernhardsson, S., eds., 2020, *Handbook on Implementation Science*, London, Edward Elgar Publishing.
- Rogers, K., 2003, Diffusion of Innovations, 5th ed., New York, Free Press.
- Rosenbaum, D. and More, E., 2020, "Complex Change in the NFP Sector" submitted to *Change Management: An International Journal.*
- Rosenbaum, D. and More, E., 2021, "Towards a Strategic Change Management Framework for the Nonprofit Sector:" The Roll-out of Australia's National Disability Insurance Scheme (NDIS)" in "Effective Implementation of Transformation Strategies: How to Nav-

Academia Letters, June 2021 ©2021 by the authors — Open Access — Distributed under CC BY 4.0

igate the Strategy and Change Interface Successfully" (ed.) submitted to the Editors for publication by Palgrave Macmillan.

- Taylor, F. 1909, The Principles of Scientific Management, New York: Harper & Brothers.
- Weiner, B., 2009, "A theory of organizational readiness for change," *Implementation Science*, 4:67, pp.1-9.

Academia Letters, June 2021

©2021 by the authors - Open Access - Distributed under CC BY 4.0