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Implementing implementation

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THE IMPLEMENTATION PROBLEM

“If you want truly to understand something, try to change it.”

Kurt Lewin

Across health care, practitioners and researchers grapple with the problem of implementation, reflected in terms such as ‘the theory-practice gap’, and ‘knowledge translation’. Yet the central problem remains—even apparently simple innovations and interventions, for which research evidence suggests effectiveness, do not easily transfer into the messy realities of health care practice. In health professions education (HPE), this issue is equally challenging, as educational interventions are inherently complex.

Thanks to advances in scholarship, HPE globally is awash with instances of innovative, potentially transformative educational practice. While many are described in published literature, relatively few interventions achieve scale and spread beyond their local context, limiting their impact. To realise their full potential to benefit health care practice, educational innovations need to be conducted, evaluated and shared in ways that enable others to adapt and use them within their own settings. Many educators would recognise that this relies as much on understanding the people involved and their organisational and social contexts as it does on the actual intervention. Yet these features—and the process of implementation itself—receive relatively little attention in the HPE literature.

relatively few interventions achieve scale and spread beyond their local context,

In this article, we do not offer a magic elixir that guarantees successful implementation or its dissemination. What we do aim to share is an introduction to a systematic, theory-based approach to implementation within HPE, and a format by which we might communicate these efforts to implement educational interventions within our practice communities.

INTRODUCING IMPLEMENTATION SCIENCE

Implementation Science (IS) is the scientific study of methods and strategies whose goal is to assimilate research evidence into practice. Widely used in disciplines such as Public Health and Health Systems Research, IS is now gaining recognition within HPE. IS stands distinct from both conventional biomedical research and quality improvement (QI). Like QI, it focuses on how to implement and sustain change rather than how to measure interventions’ effectiveness. Yet unlike QI, which is mainly concerned with local change, IS shares the research aspiration of generating results that are applicable and beneficial in different settings. To achieve this, IS follows a different process from conventional research, in which interventions are developed, tested and offered as generalisable without the need for further adaptation. Instead, IS research aspires to the goal of transferability.

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operate inside ‘the black box’, iteratively evaluating how interventions work in context, and progressively adapting and refining them in response. With this in mind, the ‘products’ that implementation articles offer are transferable interventions, already honed through a process of implementation, and theory-based understandings that can help practitioners in other settings apply and develop them further.

**Implementation Science (IS) is the scientific study of methods and strategies whose goal is to assimilate research evidence into practice.**

**IS follows a different process from conventional research.**

**IS research aspires to the goal of transferability. Researchers operate inside ‘the black box’.**

The ‘products’ that implementation articles offer are transferable interventions.

While IS may be unfamiliar, its purpose aligns well with that of HPE, in that most educators want to bring about local change while generating transferable insights. IS can deliver both more transferable interventions and theory (abstractions of interventions). This theorising can help people in other places apply an intervention whilst continuing to make it even more transferable and further developing theoretical understanding of how contexts, processes and outcomes relate to one another. While this may sound intimidating, the sort of explanatory methodologies used in IS may well be familiar to those working in HPE.

**IS can deliver both more transferable interventions and theory.**

**BOX 1 Defining principles of implementation research**

- Implementation and evaluation are typically conducted as concurrent, synergistic processes
- Interventions are changed and adapted in response to the implementation process progresses
- IS tools and methodologies focus more on ‘process measures’ than outcome measures, enabling researchers to assess how interventions (can be made to) work in context
- Focus on establishing an intervention’s validity rather than ‘proving effectiveness’; evaluation ideally captures a coherent path between intended aims, intervention performance and potential impact, for example, does the intervention lead to changes in clinician behaviour that will benefit patients?
- IS considers broader elements that influence successful implementation, including interventions’ feasibility, acceptability and costs
- Researchers, who are often ‘insiders’, are integral to the change process and offer careful reflections on their own role(s)
- Rather than offering static ‘results’, implementation research usually describes a process and its evolution over time.

**3 | IMPLEMENTATION SCIENCE IN HPE: GETTING STARTED**

Many different approaches can be used to support implementation research. As a comprehensive, practically oriented way into IS, we recommend the Consolidated Framework for Implementation Research, which synthesises leading theories and approaches to identify and explain key constructs that influence implementation.1 CFIR provides a blueprint to support both doing and describing implementation.

Many different approaches can be used to support implementation research.

**CFIR provides a blueprint to support both doing and describing implementation.**

Figure 1 summarises the overarching CFIR constructs. The original innovation goes through a cyclical process of implementation, which is
influenced by context—both the immediate social, organisational and cultural landscape (inner setting), and the wider political and societal context (outer setting). Within the inner setting are the people involved—stakeholders including clinicians, educators, managers and researchers themselves—each of whom brings cultural, professional and individual values that lead them to evaluate, accept, refute, challenge and modify interventions. As the implementation process progresses, interventions change, retaining core elements but adapting to fit the

TABLE 1 Elements to consider for inclusion in an implementation article

| Article section | Suggested content |
|-----------------|-------------------|
| Background      | Within your problematisation, describe wider contextual features (e.g. at policy level) that motivated you to develop your intervention and that could affect others’ ability to transfer it |
| Approach        | Describe features of your organisational context  
|                 | Describe in detail your intervention, its development, its core components, how it intends to achieve its effects (known as its ‘programme theory’) and how it might be adapted  
|                 | Consider using or linking to other theories, whether in your intervention design or your methodological approach; implementation methodology (such as CFIR) is flexible and works well alongside prior theory |
| Evaluation      | Consider describing multiple sources of data that shed light on the various constructs of implementation, for example, surveys to evaluate organisational culture, interviews to explore practitioners’ attitudes, document analysis to describe policy context  
|                 | Describe the cyclical process by which the implementation occurred; what obstacles were encountered and how were these overcome?  
|                 | Consider specific elements within CFIR, for example, intervention adaptability, costs; implementation climate, openness to change; organisational structure/culture (bear in mind that it may be neither appropriate nor feasible to include them all)  
|                 | Avoid outcomes that provide unclear evidence of implementation in context; for example, be wary of describing gains in knowledge or confidence that may not translate to change in practice |
| Implications    | Do not just boast about success or lament failure; offer lessons learned that could guide others in implementing your intervention  
|                 | Describe what further changes might be made going forward  
|                 | Reflexively consider the role the researcher(s) played in the implementation process and how this impacted outcomes |
surrounding context. Implementation also changes the context and the people within it, reshaping systems, culture, behaviour and values.

Implementation also changes the context and the people within it, reshaping systems, culture, behaviour and values.

Scholarly articles tackling implementation should consider these constructs and their specific components (which are described in detail within CFIR). Based on these elements, Table 1 suggests specific points that authors may wish to address within each section of an implementation article.

For an example of how CFIR constructs were used to identify enablers and barriers to implementation of an educational intervention, we suggest reading article, which describes their work to implement a workplace-based assessment tool.

4 | CONCLUSION

HPE now needs to look beyond innovation to implementation. The emerging field of IS has the potential to support both implementation scholarship and implementation itself.

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