

Drs. Julia E. Moore and Sobia Khan

## Promises and pitfalls of bridging the implementation science to practice gap from the perspective of implementation support practitioners

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### Key takeaways

- A cadre of implementation support specialists is needed for high quality implementation
- Inequities in our implementation processes need to be mitigated
- Implementation support practitioners can build a bi-directional bridge to inform implementation researchers of practice challenges
- Tailored training widely offered to people in the system based on their role and relevant competencies can improve scale
- Implementation practice has produced innovations that can be used and studied by implementation researchers

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Implementation science is rooted in recognized gaps between research evidence and practice; it is a field that emerged when it became apparent in multiple professions (e.g., public health, social work, healthcare) that programs and practices were not being

adopted and/or implemented well (Estabrooks et al., 2018). While implementation science has grown and continues to grow as a field dedicated to bridging this gap, ironically, another gap has emerged — one between implementation science and practice (Metz et al., 2022; Westerlund et al., 2019). To achieve the goals and objectives of implementation science, it is imperative that we bridge this gap between implementation science and practice.

In their debate paper, *Promises and pitfalls in implementation science from the perspective of US-based researchers: learning from a pre-mortem* (Beidas et al., 2022), the authors reflect on the threats and opportunities of implementation science, offering ideas for future directions and opportunities that could be leveraged. We read this paper with enthusiasm. The scientists who wrote this paper suggest that a deep analysis of the state of the field is necessary to move it closer to its original intent and purpose. We believe the time is right for this kind of thinking, particularly because implementation science and practice are increasingly being prioritized globally, and it is becoming more important for both to be grounded in one another.

In this spirit of mutual grounding, we provide

a response to the debate about the threats and opportunities in implementation science by harmonizing them with perspectives from implementation practice. The purpose of our paper is to build on the identified themes from *Promises and pitfalls*, focusing specifically on bridging the gap between implementation science and implementation practice. This is the first in a series of white papers that we are launching in 2023 to help lift up experiences and knowledge in implementation practice and address the gap between implementation science and practice.

## Our role in the system and our worldview

[The Center for Implementation](#) (TCI) holds a unique position – our role in the system is to bridge the gap between implementation science and practice; we work with a wide variety of professionals from a diversity of fields across multiple countries who work at different levels of the system. We primarily play a support role yet are rarely the people supporting local implementation teams. We consider ourselves as a secondary or tertiary support — we support others to support implementation. We do this by providing capacity building and other supports (e.g., technical assistance) on both *how to implement* and *how to support others to implement*. Some examples of our work include developing a state-wide implementation support infrastructure for social and emotional learning; facilitating implementation planning with a national intermediary healthcare organization; working with an international NGO that helps researchers strengthen the implementation science components of their proposals using a practice lens; and what we are probably best

known for – our online courses and workshops that teach the fundamentals of implementation science in practical ways.

Anytime we implement, whether for research or practice, we believe we should always connect with the WHY of what we are doing. Our approaches are inclusive and grounded in equity and empathy. We utilize several methods to make our work more accessible, particularly to professionals in low- and middle-income countries; our courses are open to everyone, and we often change formats and terminology to enhance sensemaking for various audiences.

It is necessary to describe these aspects of our work to contextualize our response to the key themes from *Promises and pitfalls* and why we highlighted the specific points below.

## Reflections on opportunity in implementation science and implementation practice

The authors of *Promises and pitfalls* make numerous salient points that resonate and reflect what we have seen in our work with researchers and practitioners. Particularly important are the overarching themes of acknowledging the complexity of implementation in various ways, the need to respond to gaps in our knowledge by bridging implementation science and implementation practice with other fields, and that strengthening partnerships across the system is warranted to do this work. Here we describe some additional thoughts from our perspective supporting implementation globally.

*Building up various components of the implementation system (in response to*

*Themes 1 and 3: “We did not impact population health or health equity” and “We recreated the research-to-practice gap”*)

There has been a great focus on building a cadre of implementation scientists and a growing interest in developing the skills of those on the “front line” (i.e., the people who ultimately form the implementation teams at local levels). What has garnered less attention is building a cadre of **specialists who can synthesize and translate** what we know works in implementation science to more practical, accessible, and actionable approaches for implementation practice (Wandersman et al., 2008). Conversely, these specialists can also synthesize and translate what is happening in implementation practice (e.g., the biggest challenges, the organic strategies already being used, and the questions that are top of mind) to implementation scientists. This two-way exchange, facilitated by a synthesis and translation role, can help broker the needs of both fields – so that implementation science is better conducted with practice in mind and implementation practice is strengthened with better evidence.

The other cadre of specialists that needs to be built is the **implementation support role** (Albers et al., 2020) While many people occupy this vital role, there is often no formal training provided and no evidence demonstrating the mechanisms of implementation support (Albers et al., 2021; Scott et al., 2022), even though it can help implementers create population health impacts. Moreover, there is a need to understand the ‘implementation support infrastructure’— a support system for implementation support practitioners to work with implementers in applying

implementation science to design, implement, scale, and sustain the use of evidence. Just as support systems are integral to supporting the use of evidence-based practices and programs, support systems can support the use of evidence generated from implementation science.

The idea here is that building capacity across multiple types of implementation functions (including research, synthesis, translation, support, and practice) is rooted in specific competencies for each type of role and requires scalability. We truly believe that to achieve the population-level impacts that the field aspires to, we will need millions of trained implementation support practitioners and implementers around the world. How to build different cadres of specialists in implementation in a scalable way and how to create implementation support infrastructure are areas of opportunity that merit further discussion and research.

*Centering equity in what we do, not only in how we measure impact (in response to Theme 1: “We did not impact population health or health equity”)*

We believe, as the authors do, that (in)equity can be better captured in our measurements. From both an implementation science and implementation practice perspective, we would add that it is also of prime importance to mitigate inequities in our processes — to truly reflect on inclusiveness and power in our implementation activities and how they shape what and how we are implementing. To transform systems, it helps to understand the historical precedents of both research and practice structures that were founded on tenets of white supremacy and colonialism, which perpetuate inequities to this day. We must then

change how we interact with one another to create a more equitable implementation system overall.

*Creating forums for better bi-directional bridging across implementation roles (in response to Theme 3: “We recreated the research-to-practice gap”)*

Upon reflection, we have realized that our work has been focused on addressing the needs of implementers, implementation support practitioners, and the community. Despite being connected to implementation researchers, we admittedly have neglected understanding their needs. As our role is to bridge the gap between implementation science and practice, we could do a better job of making this a bi-directional pathway.

Building on this, opportunities to share practice-based evidence with implementation researchers could be developed outside of traditional research and practice structures. For example, it is difficult for us to publish our work in traditional academic journals (due to the types of data we have access to, the methods used, and the funding required to publish in open access journals) which is why we have written this white paper – therefore, we have started a white paper series with one of the objectives being to share knowledge about practice-based evidence (based on supporting 100+ implementation initiatives and training 7000+ people). There may be other spaces that researchers and practitioners can creatively co-create to share knowledge. We welcome and invite additional ideas and suggestions to foster dialogue.

*Balancing the tension between expertise and scale in practice (in response to Theme 4: “We could not balance making*

*implementation science available to everyone while retaining the coherence of the field”)*

We started TCI with a mission and moral imperative to make implementation science practical, relevant, and easily accessible to the professionals who play any role in supporting the implementation of evidence. We created this mission after seeing how many people both wanted and needed training about implementation but could not due to inequitable access. In our online courses, we welcome implementers (regardless of job title), community partners, policymakers, graduate students, and researchers — from any field and any country. People in over 100 countries have enrolled in our free mini-course on implementation science.

In our journey, we have realized: 1) Everyone in the system does not need to acquire the same set of competencies. Just like the authors identified different groups of scientists who might know and use implementation science at different levels, we can also think of practitioners as a very diverse group of “people who do implementation practice”; and 2) Practical solutions developed by implementers sometimes involve “hiding the magic” of implementation science so that people can more easily understand the concepts, which also means sometimes the “magic” gets lost - it is hard to make sure people stick to the theory and evidence produced by implementation science as knowledge on how to implement is scaled. For example, leaders are often not directly implementing; however, their policies, support, and communication influence how things are being implemented. Therefore, some basic knowledge of implementation principles and approaches can enhance how they support others in the system to

implement.

The true work of implementation practice should be led by trained professionals (analogous to the dedicated implementation scientists) who have fully realized and recognized roles as implementation support specialists (Albers et al., 2020) and who deeply understand the “magic” so that it does not get diluted. This is the reason we launched our [certificate program for implementation support specialists](#) — we believe this should be a widespread role. Additionally, we would like to see these roles recognized for their importance in supporting organizational and system change (see our first point above). An additional scale mechanism could include embedding professional programs in implementation practice into graduate departments at universities.

*Better alignment between researchers and practitioners (in response to Themes 5 and 6: “We could not align our timelines, incentives, or priorities with our partners” and “Our implementation strategies and processes were too complex and not well matched to partners’ needs”)*

Researchers and practitioners serve different roles in the system — these should be recognized and celebrated. Areas of alignment should serve to strengthen each system partner’s function. The authors identify timelines, incentives, and priorities as areas for further alignment; we would add that continued partnership is based on developing trust and mitigating power dynamics and that a deep understanding of these is essential for alignment between researchers and practitioners. Trust and power were described as top challenges to us by practitioners, which is why we designed a course specifically on

[Cultivating Trust and Navigating Power](#). It is also apparent that trust and the science of relationships is emerging in the implementation literature (Metz et al., 2022) and warrants further research.

We also agree that misalignment can come in the form of complexity. To better understand practical needs, uses, and tools, we believe researchers can work more closely with the synthesis and translation system, as well as with implementation supports, to see what is already being done in response to this complexity and what still needs further investigating. A lot of innovation happens in practice because we have no choice but to address our implementation challenges in the best ways we know how. We welcome researchers to look to practice for emergent responses to complexity and to work with practitioners to strengthen these solutions.

For example, we have found that theories, models, and frameworks in implementation science need to be synthesized and translated for use in practice. Additionally, we have emphasized that process models for strategy selection and tailoring are required in practice because most practitioners are not working with an evidence-based program. Hence, we created two synthesized pathways from implementation science: StrategEase and Implementation, Spread and Scale. We apply these pathways prospectively for the purpose of planning as opposed to retrospectively for the purpose of evaluation (as is typically done in research).





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We also recognized that strategy selection is too complex and developed the [StrategEase tool](#) to help people through this process. Here, implementers identify the scope of change, identify determinants (i.e., barriers and facilitators) and mechanisms of change, and use the tool to select implementation strategies that have been linked with determinants. We use established theory (capability, opportunity, motivation – behavior and theoretical domains framework; Michie et al., 2011) and have populated the list of strategies with evidence from implementation science (like the ERIC list; Powell et al., 2015).

The two examples above are the kinds of opportunities described in the *Promises and pitfalls* paper that we have made headway on because of a recognized and expressed need for these kinds of applications and tools in practice. There is still a lot of work to be done, and we think it would progress the field if additional research on solutions already developed in practice were conducted rather than “reinventing the wheel.”

## Conclusion

We are excited to see the emerging recognition of the important role implementers

and implementation support practitioners play in bringing implementation science to life and using it to maximize impact and improve outcomes. Reflecting on these thematic areas has helped us push our thinking and recognize ways in which we can better bridge the implementation research to practice gap, with a particular focus on connecting back to the implementation researchers who produce the knowledge that we synthesize and translate.

We sense a building momentum in this field being driven by communities wanting evidence-based programs and practices, implementers looking for better ways to support implementation, funders seeking better return on investment, and implementation researchers aiming to maximize their impact on communities. We are excited for the future directions!

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## Authors

Julia E. Moore, PhD  
Executive Director, TCI  
[julia.moore@thecenterforimplementation.com](mailto:julia.moore@thecenterforimplementation.com)

Sobia Khan, PhD  
Director of Implementation, TCI  
[sobia.khan@thecenterforimplementation.com](mailto:sobia.khan@thecenterforimplementation.com)

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### StrategEase Pathway

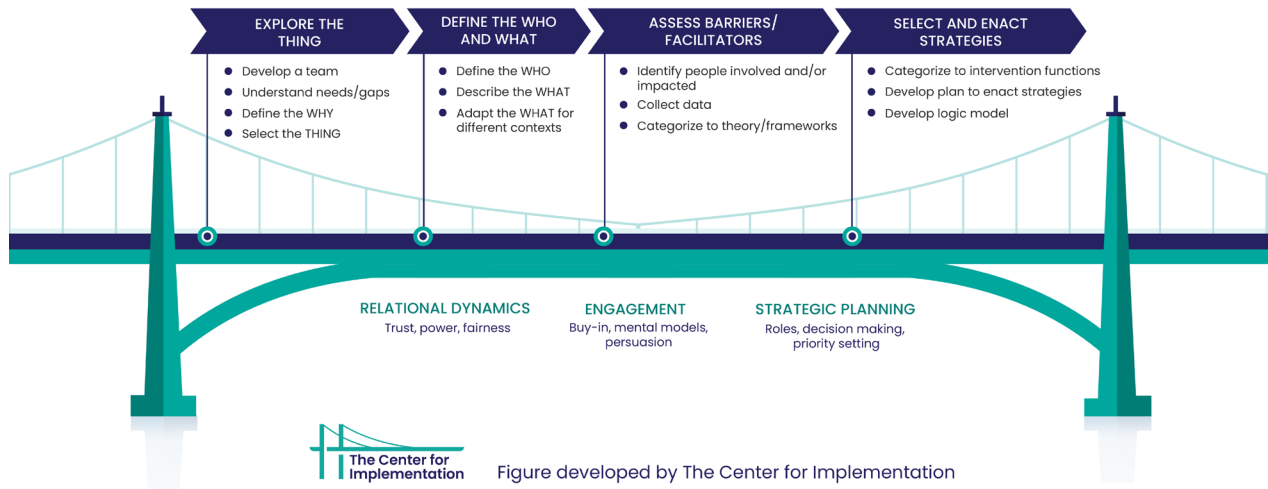


Figure developed by The Center for Implementation

Figure 1

### Implementation, Spread, and Scale Pathway



Figure developed by The Center for Implementation

Figure 2

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