



Backwards design or looking sideways? knowledge translation in the real world

Comment on “A call for a backward design to knowledge translation”

Sarah Bowen*, Ian D Graham



Abstract

El-Jardali and Fadlallah provide an excellent summary of the many dimensions of knowledge use, and the breath of issues and activities that must be considered if knowledge is to be put into practice. However, reliance on a continuum (rather than a cyclical, multidirectional, systems) model creates a number of limitations, particularly when promoting evidence-informed action in the areas of health policy and management, where diverse forms of knowledge must be synthesized and decisions made in a rapidly evolving context. We propose a paradigm shift - from viewing Knowledge Translation (KT) as a linear ‘knowledge transfer’ activity, to a commitment to full stakeholder engagement in knowledge production, dissemination and implementation.

Keywords: Knowledge Translation (KT), Engaged Scholarship, Evidence Use

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*Correspondence to:

Sarah Bowen

Email: sarahbowen.parada@gmail.com

A discussion of the relevance of the Knowledge Translation (KT) literature for the world of health policy and management is long overdue. Much of the literature to date has focused on implications for clinical practice rather than for health system planning or policy-making, where there are recognized differences in types of decisions needed; culture of decision-making; importance of context; timelines for decisions; and type of evidence considered credible and relevant (1,2).

El-Jardali and Fadlallah (3) provide an excellent summary of many aspects of knowledge use, and the breath of issues and activities that must be considered if knowledge is to be put into practice. They also highlight one of the critical factors in promoting knowledge use: ensuring that the research knowledge generated does, in fact, respond to identified decision-maker needs. It is to be hoped that their article promotes greater attention to the ethical imperative of promoting appropriate knowledge use, and broadens the discussion about the call for “KT” within the international health policy and management context.

Our comments are intended to further this important discussion, focusing on what we feel are some limitations of the El-Jardali and Fadlallah model. Use of a continuum (rather than a dynamic and iterative model) for understanding knowledge creation and use limits our understanding of the ‘real world’ of knowledge use (4,5). This linear model suggests that, in spite of recognition of the need for engagement with various partners, the underlying paradigm is one of knowledge transfer rather than engagement. The knowledge transfer paradigm is based on a linear, one-directional view of knowledge use – often driven by available research rather

than the issues of concern to policy-makers and managers. This paradigm (knowledge is created, then effectively disseminated, with the hopeful expectation that appropriate bodies will act on it) formed the basis of earlier KT activities and theory development, and continues to dominate model development to this day (6). However, it is increasingly being challenged on many fronts, with some suggesting that the concept of KT has outlived its usefulness (7): it does not reflect the “real world” of decision-making and knowledge use (8). The engagement paradigm, in contrast, focuses more on collaborative knowledge production than knowledge transfer, and emphasizes the meaningful participation of those who we hope will act on the evidence – as well as those who can contribute to it (9).

As suggested by one framework, the iterative Knowledge to Action (KTA) model, effective KTA activities can occur at any stage of the knowledge production, dissemination, planning and implementation cycle (10). A major advantage to using cyclical and systems models is that they are more likely to contribute to an appreciation of the complexity of using evidence in management and policy-making. It has been observed that much of the failure to make headway in solving many of the issues facing health services today is that we tend to treat challenges as though they are “simple” problems (11), whereas many health system challenges are exceedingly complex. We need to work with models that reflect this complexity. Not only must we be prepared to begin to apply evidence at any point in the knowledge use cycle, sometimes proposed solutions are not successful and evidence from evaluation of these failures (as well as the additional research questions they generate) will provide additional evidence

for moving forward. More resources are needed to increase capacity to evaluate interventions, and – importantly – to increase awareness of the importance of, and strategies for, implementation evaluation (12). Not only an implementation plan, but also evaluation of that implementation, is needed.

The authors appropriately recognize the importance of developing sustained relationships with a variety of stakeholders. We would place greater emphasis, however, on the role of knowledge users in *knowledge production* (13). In the El-Jardali and Fadlallah model, it appears that many activities are to be conducted by researchers alone (e.g. searching for research evidence and systematic reviews, then packaging the information). Research has, however, highlighted the important contribution that knowledge users may make to these processes (14–16). The emphasis on packaging information into audience-tailored formats is reminiscent of the knowledge transfer approach to KT – greater attention must be directed to generating locally applicable knowledge, and to the potential contribution of knowledge users in helping identify and interpret relevant knowledge as to feasibility of solutions.

This is more than soliciting ‘views’ of diverse stakeholders. While it can be a difficult task to navigate what are often very different worldviews, organizational cultures, areas of specialization, and agendas in order to come to a common understanding, KT models must recognize the importance of integrating local expertise and evidence with available research. This is particularly relevant in the fields of public health, management, and health policy, where it has been observed that “knowledge obstinately refuses to be driven unproblematically into practice” (17). Research alone is of limited usefulness. Specialized skills and partnerships with those who know the field are required: it is not a matter of simple research synthesis, but synthesis in context (18).

It is also important, when working in a global context, to recognize the inherent bias, and possible colonialism, inherent in many traditional KT initiatives (19). Knowledge is not neutral, not a passive commodity but a productive force: KT is political (15). Unfortunately, the “knowledge” employed in KT initiatives is often research generated out of a positivist paradigm – with little cultural insight into the inherent biases that determine *what* we research, *how* we research it, and *how* we interpret the findings. Too often, other critical sources of evidence in the management and policy fields are neglected or given minimal importance: local data and evaluation findings, professional insights, resource availability, organizational culture or patient preferences (20). The undervaluing of these sources of evidence is often, quite appropriately, a barrier to decision-maker openness to research use (21).

While it is important to “begin with the end in mind”, KT is not a linear process. At any stage we may gain new knowledge that forces us to reevaluate previous assumptions. We must always remember to “look sideways” – to remain aware both of the multitude of factors that may be contributing to the challenge we seek to address, as well as the wisdom of ensuring that we monitor any unintended effects of our well-intentioned interventions. In addition, we must take care to be clear about which partners should participate in determining what the desired “end” is to be.

In a rapidly evolving context, there is no ‘beginning’, and rarely an end – rather a process of continual evolution. It is also important to recognize, as in the issue of food safety presented by the authors, selecting the ultimate outcome is unlikely to be contentious: in many cases all stakeholders will agree on what are often “motherhood” issues (safe food, quality healthcare, improved effectiveness). The real challenge will likely come in determining the processes to achieve these outcomes. This is where the limitations of working only with research evidence often become apparent: many sources of evidence and knowledge, and many diverse stakeholders must be engaged in addressing which interventions are likely to be effective in which contexts. This requires true partnership among researchers, knowledge users, and those affected by the choices we make.

Ethical issues

Not applicable.

Competing interests

Dr. Graham is the author of another KT model (the KTA model). Both authors have published articles urging a move from linear to more iterative models.

Authors' contributions

SB developed the first draft of the article. Both authors contributed to the framing, critical review, and finalization of the article.

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