



Reflecting on backward design for knowledge translation

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

Neale Smith^{1*}, Evelyn Cornelissen², Craig Mitton¹**Abstract**

In a recent Editorial for this journal, El-Jardali and Fadlallah proposed a new framework for Knowledge Translation (KT) in healthcare. Many such frameworks already exist; thus, new entrants to the field must be scrutinized in regard to their unique contributions to advancing understanding and practice. The El-Jardali and Fadlallah framework focuses on policy-level discussions, a relatively under-studied issue to date. Their framework usefully incorporates both priority setting questions at the front-end (which KT efforts get undertaken and which do not) as well as evaluation questions at the back-end (how do we show that more evidence-informed decisions are actually better ones?). Their framework also emphasizes capacity building among both decision-makers and researchers. This is an area worthy of additional attention, particularly because it is likely to be far more challenging than El-Jardali and Fadlallah allow.

Keywords: Knowledge Translation (KT), Priority Setting, Evaluation, Capacity Building

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In their recent editorial for this Journal, ‘A call for a backward design to knowledge translation’, El-Jardali and Fadlallah (1) offer their version of a Knowledge Translation (KT) framework, that is, a heuristic which should provide guidance to researchers and decision-makers in improving the uptake of evidence into policy and practice. As they acknowledge, there is no dearth of such frameworks or models; a half decade ago, Ward *et al.* identified 28 of them (2), and they have only proliferated since. So what then does this piece add to the already substantial KT literature? To begin, studies of KT from the perspective of health system administration have been historically “far outnumbered” (3) by those from clinical practice settings. As reported in one Canadian study, KT evaluations tend to report clinical outcomes to the exclusion of “the effect of evidence use on managerial decisions” (4). The proposed framework could be useful in filling these gaps. The framework is aptly suited to this purpose as it uses the policy literature as grounding, for instance framing context in the form of institutional, interest and value/idea barriers often used in such analyses (5). The implementation science literature so far has made too little use of policy theories and the related body of evidence about how institutional and organizational factors shape program choices and provider behaviours (6).

El-Jardali and Fadlallah describe their approach as impact-oriented, as encompassing the spectrum of activities from research agenda setting to monitoring and evaluation, and as one which draws attention to the needs for capacity building among all players at all stages in order to best achieve knowledge transfer into action. In what follows, we would like to offer comments on the latter two of these features.

To begin with, they have extended the typical KT framework

usefully backward to encompass priority setting about what knowledge production efforts will be funded. Including priority setting in the KT model helps to contextualize KT efforts by situating them in the current political environment (as reflected in the views brought forward by politically-informed key stakeholders). For instance, if a government’s political commitment is to reduce wait lists for hip and knee replacements, then knowledge development related to technical and managerial aspects of these procedures may be fast-tracked. Efforts to give stakeholders more meaningful input into research funding decisions and project implementation are already being undertaken by grantors, such as the Patient Centered Outcomes Research Institute (PCORI) in the United States (U.S.) (7), or in the Canadian Institutes of Health Research’s concept of integrated KT (8). As El-Jardali and Fadlallah’s Figure 1 suggests, adding priority setting activities at the front end of the KT framework serves to formalize key stakeholder engagement in the process. This may facilitate buy-in to KT later in the process. It may also facilitate more research that is responsive to key societal needs. At the organization-level, we would suggest, priority setting in the form of resource allocation choices will spur or deter particular innovations or knowledge transfer. Where organizational resources are allocated to a specific activity, organizational processes and people often align to facilitate this activity occurring.

El-Jardali and Fadlallah also extend their framework forward, to encompass evaluation of evidence-informed decision-making or KT. They suggest that it has been too long assumed that evidence-informed policy-making naturally improves outcomes; others have made the same point in similar terms: “The absence of robust evaluation evidence showing that

evidence utilization actually leads to better outcomes is widely admitted” (9).

For our second point, we consider the centrality to their framework of the idea of capacity and capacity building. We agree this is a significant issue and one area in which further refinement, development, and research going forward would be of value. There are several ways to interpret and define capacity, based, in part, on which actors are perceived to have or need the capacity to do what. Among these are health service delivery organizations’ capacity to produce knowledge (4) and/or the capacity of decision-makers within healthcare organizations to seek and use research knowledge (10). Generally speaking, “the capacity to innovate and share knowledge is not well-developed within health systems” (11) and “determining capacity to act on evidence is a neglected area of policy analysis and research efforts” (12). Making this distinction thus influences what efforts are taken to enhance identified capacities. We have found in previous priority setting work that assessing organizational capacity for evidence-informed decision-making would be a prudent initial strategy before embarking on specific capacity building efforts (13). Other studies also support this premise (14).

El-Jardali and Fadlallah highlight ‘creating centers/systems that specialize in KT’. However, instead of (or at least in addition to) the creation of new nodes of expertise, we would advocate for broader KT training across already existing organizational roles. The creation of centers/systems that specialize in KT risks creating new silos. This may not in fact result in greater KT or evidence-informed policy-making without widespread capacity: the existence of individuals and processes located across the organization(s) that have adequate knowledge, skills and resources to combine external research evidence with contextually appropriate local practice knowledge. Both policy and practice, after all, are not solely what senior leaders say these should be, but also what is implemented by front-line workers exercising individual choice and discretion, either to interpret or potentially subvert the directions coming from above (15).

El-Jardali and Fadlallah note, and our own research (16) confirms, that an effective process around priority setting and KT requires alignment of system, organizational and individual foci. Thus, increasing individual, group and organizational capacity, and developing working relationships between knowledge producers and users, might be more effective and efficient. Mitton and Bate (17) suggest several ways forward in this regard, including partnerships between healthcare organizations and universities which position PhD-trained researchers directly in healthcare organizations. This type of capacity building may be more about evolving professional and researcher practice than about inventing new KT roles. ‘Knowledge brokers’, as an example, have been touted as actors that might facilitate knowledge uptake, but they may perhaps instead contribute to further compartmentalization of knowledge producer and user roles (18), and may be ill-suited for situations where knowledge is politicized and contested (19) and where translation may require significant advocacy efforts (see below).

El-Jardali and Fadlallah conclude by calling for expanding capacity building to the traditional knowledge production side of KT. In their vision, researchers could assume

new responsibility for KT by joining citizens and others in undertaking advocacy for the uptake of knowledge. This implies not only cultivation of new skills, but also paradigmatic shifts in the way that researcher roles are conceptualized. KT science to date has largely been positivist in orientation, where knowledge claims are staked upon researchers’ objectivity and mastery of empirical methods; thus, “the conventional model of KT leaves little or no room for subsequent public advocacy” (20). The researcher-as-advocate for change is more familiar to participatory and critical science methodologies. Action research, for instance, brings researchers and decision-makers or practitioners together to co-create relevant knowledge through practical use and application (11,18). Such KT is based on a more constructivist worldview and would include: “more storytelling, conversations, reflection, dredging experiences” (18) – less typical skills and methods of knowledge generation. However, it is likely far more difficult to achieve this type of capacity building – the adoption of new epistemological principles across the research and health service delivery communities – than El-Jardali and Fadlallah’s paper suggests.

Ethical issues

Not applicable.

Competing interests

Authors declare that they have no competing interests.

Authors’ contributions

CM conceived the idea for this commentary. NS and EC prepared the initial draft paper. All authors contributed to editing and revision and approved the final version of the manuscript.

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