

Taking Stock of Current Societal, Political and Academic Stakeholders in the Canadian Healthcare Knowledge Translation Agenda

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Abstract

Background

Over the past 15 years, considerable theoretical and polemical discussions have focused on knowledge translation and related agendas. Concurrent to these discussions has been developments in the science of studying and measuring the effects of translating research evidence into healthcare. In recent years, the role of the academic community in the healthcare knowledge translation agenda has been examined, and government health research funding agencies have developed key funding directives adding political and social dimensions to the agenda.

Objective

This paper discusses recent developments to the current knowledge translation agenda in Canadian healthcare and how influences to the agenda shape the discovery and translation of health knowledge.

Discussion

The current knowledge translation agenda in Canadian healthcare involves the influence of values, priorities and people; stakes which greatly shape the discovery of research knowledge and how it is or is not instituted in healthcare delivery. As this agenda continues to take shape and direction, ensuring that it is accountable for its influences is essential and should be at the forefront of concern to the Canadian public and health research community. This transparency will allow for scrutiny, debate and improvements in health knowledge discovery and health services delivery.

Background

In healthcare and in health research, the knowledge translation agenda has gained increasing importance as a means to promote ‘evidence-based’ practice and policy. Considerable theoretical and polemical discussions have transpired concerning what ‘evidence’ is [1-6], what constitutes evidence-based practice and policy [7-10] and who should be accountable [11-14]. Concomitant to these discussions has been the development of methods for studying knowledge translation [15-20] and studies evaluating the translation of research evidence into healthcare practices [21-26]. However, these important developments aside, the knowledge translation agenda remains at the forefront of international debate and concern.

Much of this debate and concern centres on the shortcomings of healthcare delivery systems, that is, the large gap that remains between research knowledge and healthcare practice. The translation of basic scientific knowledge into clinical studies and the translation of clinical studies into improvements in healthcare practices are two major obstacles or translational blocks [27]. Studies in the United States and the Netherlands suggest that 30-40% of patients do not receive treatment complying with current research evidence and 20-25% of the care provided to patients is not needed or may be potentially harmful [28-29]. To promote effective, timely and responsible translation of health research results, health research funding agencies across the world have developed key funding directives and statements on the importance of knowledge translation to healthcare (e.g., Institute of Medicine, Medical Research Council, National Institutes of Health, Canadian Health Services Research Foundation, Canadian Institutes of Health Research). In Canada, these directives carry key public and private investments that, in turn, shape the knowledge translation agenda.

In this paper, we discuss a current knowledge translation agenda in Canadian healthcare that involves the influence of values, priorities and people, and illustrate how each of these stakes shapes the discovery and translation of health research knowledge. We provide recommendations for the direction of this agenda in light of current stakeholder interests.

The Knowledge Translation Agenda in Canadian Healthcare

The current healthcare research agenda in Canada is a more balanced one. Specifically, there is a strong foundation in discovery of new health knowledge and its translation into the healthcare system. Prior to this, the research agenda was focused almost exclusively on the creation of new knowledge, with little emphasis on the actual implementation in practice or policy. Having this new agenda in healthcare, however, is complex; to be effective it needs to span macro (policy, funding), meso (organizational) and individual (researcher, decision-maker, consumer) levels of the health system which is itself a complex system with competing demands from multiple stakeholders. To add to this complexity, this agenda is also greatly shaped by a degree of societal accountability (e.g., return on investment of tax dollars), priorities (e.g., identified needs for healthcare system improvements) and academia (e.g., researchers and academic institutions involved in knowledge production). While these stakeholders influence the discovery of research knowledge and how it is or is not instituted in healthcare delivery (at the clinical or policy level), they have received limited debate and merit in published literature.

The Canadian movement for addressing how research influences the healthcare system and patient outcomes emerged in the early 1990s with calls in the literature for the adoption of an evidence-based, decision making culture throughout the healthcare system [e.g., 3]; the National Forum on Health swiftly spurred a similar response at a national level [30]. Borne out of these

early developments, at the macro level, are knowledge translation agendas currently endorsed by Canada's two major health research funding agencies, the Canadian Institutes of Health Research (CIHR) and Canadian Health Services Research Foundation (CHSRF). Each agency offers their respective definition of knowledge translation. For CIHR, knowledge translation is, "... the exchange, synthesis and ethically-sound application of knowledge – within a complex system of interactions among researchers and users – to accelerate the capture of the benefits of research for Canadians" [31]. CHSRF uses the phrase knowledge transfer and exchange which is defined as, "... collaborative problem-solving between researchers and decision makers that happens through linkage and exchange. [It] results in mutual learning through the process of planning, producing, disseminating, and applying existing or new research in decision-making" [32].

Using these definitions, both agencies have established key funding directives to encourage the translation of health research knowledge to ultimately better influence policy and practice decisions. CIHR stresses accountability in the return on investment of tax dollars that fund Canadian health research [31,33]. The intent is clear: publicly funded health research should be carried out in the most effective way to facilitate timely translation of research findings into health and fiscal benefits. Since its establishment in 1999, CIHR has increased its funding 3-fold in clinical research and 20-fold in health systems research supporting its knowledge translation mandate [34]. Consistent with its definition of knowledge transfer and exchange, CHSRF focuses funding on applied health research projects and clearly emphasizes the need for established relationships between researchers, decision- and/or policy-makers to translate research findings to healthcare settings [32]. While few would argue that these directions are unnecessary, these positions impact research agendas and shape professional workload and tenure and promotion for researchers, decision-makers and policy-makers.

The role of Canada's funding agencies in the knowledge translation agenda provides a transparent process of tracking health research funds and the impact/outputs of funded research. It also raises several important issues related to timing, translation ethics, accountability and work scope. The translation of basic scientific 'bench' discoveries into clinical studies and the translation of clinical studies into improvements in health care practices are two major obstacles or translational blocks in the health care system [27]. Interestingly, there are no definitive timeframes for either of these translational blocks. Indeed, it may take years or decades before a body of research findings accumulates to provide an ethical and sound direction for health system impact. Further, this accumulation of research knowledge would also likely involve more than one field in the scientific community to contribute (e.g., basic and clinical researchers from nanotechnology, engineering, medicine, etc.). CIHR accounts for this important distinction in its caveat of "an ethically-sound application" in its definition, but the message may not be clear enough when considered alongside the agency's demand that CIHR-funded research studies have a clearly outlined knowledge translation plan. The risk with this demand is the misinterpretation of what knowledge translation is to healthcare (e.g., translating evidence into healthcare practice) versus what knowledge translation is to health research (e.g., translating evidence to peers via publication for scrutiny and/or translating evidence into healthcare practice for study). Indeed, the knowledge translation movement in healthcare can give rise to good-intentioned researchers, decision-makers and policy-makers prematurely implementing evidence and/or interventions when there is an insufficient knowledge base to be confident in their effect. This concern and reality has been echoed in the literature before [28,35]. The sense of urgency to translate for public greater good and system improvements should be tempered with clear messages that translation is an ethically-bound process that should be afforded to bodies of health research evidence (versus individual studies) with robust evidence to support their impact. The natural

question that emerges and is debatable beyond the scope of this paper is what is enough evidence?

The emphasis by Canada's funding agencies on engaged activities between researchers and decision- and policy-makers to promote research translation into health benefits carries accountability issues and concerns regarding scope of practice for all stakeholders. There is potential for considerable impact on these stakeholders. Limited research has empirically examined the activities of Canadian health researchers and whether these actually align with the current funding agendas [36]. Of concern is the potential tension between funding agency directives and the system that health researchers function in, an environment that expects researchers to ascend through the academic ranks via established, traditional publication and grant dollar benchmarks. Effort afforded to establishing connectivity with and products essential to decision- and policy-makers for translation (as required or encouraged by Canadian funders) is under-rewarded, if un-rewarded, by university tenure and promotion systems. These foci also carry the potential reduce time spent on traditional scholarly benchmarks giving rise to unintended adverse effects on researcher careers [37,38]. The same situation can be afforded to decision- and policy-makers who are evaluated by performance standards that are not well-aligned with funding agency directives that encourage/expect involvement in the research process and translation efforts whose products often extend beyond formal evaluative time spans.

To meet the contemporary demands Canadian funding agencies and those of university tenure and promotion, researchers may need to strike a 'balance' between traditional knowledge translation activity (scholarly outputs such as peer-reviewed publications) and applied knowledge translation activity (engaged interactions with decision- and policy-makers) [39-41].

Academic institutions' values need to evolve to become more utilitarian; knowledge discovery cannot be solely regarded and rewarded via traditional knowledge translation activity but should extend to a more utilitarian standpoint where knowledge discovery is 'hand-in-hand' with potential knowledge implementation. The same philosophy can be applied to decision- and policy-makers who find themselves at odds with how to manage their portfolios. This potential solution, however, only targets individual accountability. Accountability targeted at the organizational level should also be expected. Employer evaluation systems need to be re-examined and reconstructed to reflect current trends in the healthcare research agenda [40,41]. Within the knowledge translation agenda are calls for the recognition and examination of organizational factors (e.g., leadership structure, hospital classification) and environmental factors (e.g., the healthcare delivery team, organizational culture, administrative personnel) that shape the innovation implementation [22,42-46]. This call should also include the examination of institutions that employ the researchers (i.e., academia) and decision- and policy-makers (i.e., hospitals and government) as these stakeholders are also directly embedded in the organizational and environmental systems within the healthcare system.

Recommendations

The knowledge translation agenda in Canadian healthcare has public and private interests that are inherently served for current stakeholders who have an influential role in knowledge creation, dissemination and implementation to advance health knowledge and health services delivery. Tailoring recommendations for the knowledge translation agenda to these interests is a first step in creating accountability and transparency to allow for scrutiny, debate and improvements in health knowledge discovery and health services delivery.

We recommend that the following need to be formally included as part of the knowledge translation debate and agenda in Canada:

1. The message that return on investment of tax dollars for healthcare research via translation to system improvements should be tempered with the clear message that translation is an ethically-bound process that should be afforded to robust evidence to support its impact [41].
2. Accountability for the knowledge translation agenda should span macro, meso and micro levels. At the macro and meso levels, funding agencies, government (federal, provincial, municipal), healthcare organizations and academic institutions need to align organizational directives related to knowledge translation of robust evidence. We need to begin publicly discussing what resources should be expected from employers to promote engaged knowledge translation activity and how should these activities be recognized in work scope and career advancement. As the demand for research knowledge has become more utilitarian, in response, stakeholders will be more effectual if they adopt a process to address utilitarian complexities [37]. At the micro level, consideration should also start to be given as to how other public and private entities (e.g., advocacy groups, media) can assume responsibility in the knowledge translation agenda. At this level, the peer-review process in evaluating research findings also warrants examination. The role of editors in publishing robust null/negative and replicated health research findings for peer and public scrutiny is a necessary component to the translation agenda. Publication bias involving positive results and the emphasis on publishing novel findings versus replicated studies can skew the landscape of health-related issues [41].

3. Organizational research should include an examination of institutions that employ the researchers and decision- and policy-makers as these stakeholders are also directly embedded in the organizational and environmental systems within the healthcare system. Further, organizationally-oriented research needs to include more sophisticated analytic work such as the development of models that demonstrate how the identified organizational features interact and work.

Conclusions

In Canada, there has been increasing pressure to demonstrate both accountability and transparency in healthcare decision-making; the translation of research to the healthcare system has been frequently accepted strategy to accomplish these demands. This knowledge translation agenda, however, has public and private interests that are inherently served for current stakeholders who have an influential role in knowledge creation, dissemination and implementation to advance health knowledge and health services delivery. As this agenda continues to take shape and direction, ensuring that it is accountable for its influences is essential and should be at the forefront of concern to the Canadian public and health research community. This transparency will allow for scrutiny, debate and improvements in health knowledge discovery and health services delivery.

Abbreviations

Canadian Institutes of Health Research (CIHR), Canadian Health Services Research Foundation (CHSRF).

Competing Interests

None.

Authors' Contributions

Both MSN and SSF led manuscript formulation and writing. Both authors read and approved the final manuscript.

Acknowledgements

Mandi Newton is a postdoctoral fellow funded by a joint funding program from the Canadian Health Services Research Foundation (CHSRF) and the Canadian Institutes of Health Research (CIHR). Shannon Scott-Findlay is a postdoctoral fellow funded by the Alberta Heritage Foundation for Medical Research (AHFMR) and the Canadian Institutes of Health Research (CIHR).

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