

Author's response to reviews

Title: A cross-sectional study of the number and frequency of terms used to refer to knowledge translation in a body of health literature in 2006: a Tower of Babel?

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Author's response to reviews: see over

Response to Reviewer's report
Ann McKibbon, corresponding author

New Title: A cross-sectional study of the number and frequency of terms used to refer to knowledge translation in a body of health literature in 2006: a Tower of Babel?

Dear Editors and Dr Moja:

We are pleased that you are considering our report for publication. We found Dr. Moja's and Ms. Schardt's comments useful in revisions of the document. The document is stronger because of their comments. Here is my fuller response to Dr. Moja's general comments and issue 10. I apologize if my response to the comments were too brief.

I will use Courier Font to distinguish my responses after review of our second submission.

Version: 1 Date: 25 May 2009

Reviewer: lorenzo moja

Reviewer's report:

General

The paper is a derivate of a larger project aiming to develop a filter for a KT searching filter.

Yes, you are right. We feel that the data we present here are interesting and deserve publication. The papers describing the filter development will not have sufficient space to provide the information we are presenting. To clarify that we are presenting data that were gathered in the filters development process we have added the following:

" The main goal of this funded project was to produce search filters for KT material; the results of which are reported in another paper. The current paper represents a substudy and reports on KT term use in published reports--data that were collected as part of the filter production process.

In the production of the search filters, we sought to determine a list of KT terms and phrases used by authors, researchers, and practitioners."

From a readability perspective, the paper is somewhat confusing, and the reporting could be ameliorated.

We have rewritten our paper to address terminology, clarity, and standardization and have included examples of content to illustrate our material.

Again, we acknowledged that the original paper was not clear and not standardized. The only way to address this was to rewrite the entire paper. We sought input from all of the authors and checked carefully that we used standard definitions and terms. Please see the submitted second version to check this. Listing all of the changes here would not be helpful.

Authors criticize the lack of standardization in terminology, whereas they adopt their own terminology.

We were very careful in our use of terminology. For example, we used the Canadian Institute of Health Research definition for knowledge translation (i.e., getting research into practice). This definition, implemented by Dr. Ian Graham from Ottawa, is often used in reports and studies. We needed to name knowledge translation something and chose knowledge translation and provided the standard definition that we used.

" Implementing important advances in health care knowledge and stopping invalidated or outmoded activities are vital to providing the best possible health care. Many people from a range of backgrounds and interests have begun to do research in this domain of implementing important knowledge in health care. The domain has many names and for this paper we will refer to it as knowledge translation (KT) and base our use on the Canadian Institutes of Health Research definition:

"Knowledge translation is a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system.

"This process takes place within a complex system of interactions between researchers and knowledge users which may vary in intensity, complexity and level of engagement depending on the nature of the research and the findings as well as the needs of the particular knowledge user."

(CIHR website: <http://www.cihr-irsc.gc.ca/e/29418.html>) "

With respect to terminology around our division of KT into components we defined what we were going to do:

"The KT literature is large and encompasses the spectrum of material from opinion pieces and editorials through controlled trials of interventions to improve clinical performance, formal modeling of the processes involved with KT, and

qualitative studies of why and how interventions worked. This large body of literature includes two smaller subsets of material that have greater potential to inform KT practice and research. The larger of these two sets of literature includes the descriptions and data on KT implementations (i.e., application of specific research findings), reports of projects and practices that have been implemented in clinical practice. Examples of this application literature are the kinds of studies that are included in the systematic review by Grimshaw and colleagues[1]. The second set of articles is the theoretical papers on models, tools, and methods to improve or implement KT."

We were not trying to develop new terms we wanted to respond to researchers and academics who want to retrieve articles dealing with KT. In our experience as researchers and information scientists, we have recognized that people often want to restrict their retrievals to one of these 2 subsets of KT, or they want to retrieval all KT articles in general on their topic of interest.

With respect to other terms, confusion exists in the information science world on whether to call constructed search strategies "filters" or "hedges". Our research group prefers "hedges" but the information science community is moving to "filters" and therefore we have changed our terminology.

Misinterpretation by other researchers is likely.

If you can identify other places where we are using our "own terminology" or where we might be causing misinterpretation, please get back to us and we will modify our content and use of terms.

Examples are needed throughout the text to allow readers to understand which KT components authors are referring to.

I have included examples for "all KT", "KT applications", and "KT theory" and included examples in many other places in the document to provide greater clarity (and hopefully interest).

" Each article in the database was classified as being about KT or not about KT. An example of a KT paper is one by Shojana and colleagues [16]. They discuss their thoughts about the importance of supervision as a training method in clinical care. All papers that were categorized as being about KT were reviewed further to determine if they were about a KT application or about KT theory as defined below."

...

" ...A KT application paper can include projects that target individuals, institutions, or policy makers (e.g., a hospital, public health department, or country).

Rurup and colleagues [17] studied the factors that facilitated and hindered the institution of advance directives in three groups of people: the general population up to 60 years of age, the general population over 60 years of age, and the relatives of patients who died after euthanasia or assisted suicide. Their article is a KT article and also categorized as being a KT application paper. The paper by Shojana and colleagues [16] described above did not report a study or ground their thinking on a model of KT or education. Their paper was categorized as a KT article but not a KT application of KT theory paper. "

...

"These theory papers can include any component of KT: synthesis, diffusion, dissemination, implementation, uptake, awareness, agreement, adoption, or adherence. Lee [19] studied 15 nurses and their perceptions of the adoption process of personal digital devices in their daily work. Analysis used a framework based on Lewin's force field theory of change. This article is about KT, describes a KT application (PDA use in nursing care), and is based on a theory (Lewin's force field theory of change). Therefore it is placed into all 3 KT categories: all KT, KT application, and KT theory papers."

The bulk of the paper consists of tables, appendices and wiki. This requires a high degree of interpretation, analysis and inference on the data supplied.

Again, please see our rewrite that seeks to address this.

Not sure how to address this without printing out the results section. We re-worked tables, tried to be more clear, provided more lists, etc.

It should be stressed that the KT terms are not independent variables since there should be cluster utilization. For instance papers which use the word dissemination are likely to use also implementation and quality improvement.

We have included this issue in our section on limits.

We are not linguists and readily acknowledge this both in this document and in the paper.

" This paper was also completed without input from linguists, terminologists, or other language specialists. We did not assess co-occurrences of words and

phrases. In addition, isolated words do not have the power to communicate as strongly or richly without their context and surrounding text. "

As a group we are interested (and experienced) in how people use words and phrases in documents because people use these words and phrases for information retrieval. We feel that information retrieval is one of the foundations of research and the more we know about how to ensure efficient collection of what has been done before us, the more effective we can be in our quest for new and important knowledge. Knowing what terms people use to describe their research across domains, time periods, and nations aids good retrieval. Understanding term use is even more important for a new domain, especially if that domain crosses multiple established traditions of research, as KT does.

10. Being able to choose specific lexical semantics, in those places where there is a choice - i.e., apart from the necessary technical terminology – is a scientific virtue. Please discuss that: a) there should be lexical networks in the KT field, and in these lexical networks the same types of words (and interpretation) tend to co-occur over a large portion of papers and authors; b) it is not the single word that makes any difference, but it is the meta-language (communication) that gives the right expression and interpretation; c) you did not use a linguistic perspective, although it may be very interesting.

I have tried to address these concerns. Please let me know if I have made sense of your suggestions.

We considered your specific comments in issue 10 and implemented them into our list of next steps in the process of understanding term use and potentially moving to improvements. See below, especially the bolded bullet points.

"Some of the steps that could make our literature more accessible and usable (and the domain of KT stronger and more effective) include the following.

- **We may need to seek help from colleagues in other disciplines: linguistics, terminology, information sciences, and philosophy are possible partners.**
- Setting standardized vocabularies and definitions for KT and its major concepts. This is a major undertaking although other disciplines have done so. For example international clinicians, epidemiologists, and researchers met under the auspices of the World Health Organization to standardize definitions of drowning which are now used internationally [23].
- Advocating a small set of terms to be used consistently by authors, educators, researchers, funders, and journal editors. Straus, Tetroe, and Graham [24]

have started this process by defining what KT is and is not in a series of articles slated for late 2009 in CMAJ.

- **Completing linguistic analyses of the literature and authors in KT, specifically lexical networks, that show the relations between sets of synonymous or near-synonymous terms in a domain such as KT. "**
- ...

Please let us know if you advise changes or fuller explanations of our modifications to the paper. Thank you again for valuable feedback.