Supporting Knowledge Translation Through Evaluation: Evaluator as Knowledge Broker

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Abstract: The evaluation literature has focused on the evaluation of knowledge translation activities, but to date there is little, if any, record of attempts to use evaluation in support of knowledge translation. This study sought to answer the question: How can an evaluation be designed to facilitate knowledge translation? A single prospective case study design was employed. An evaluation of a memory clinic within a primary care setting in Ontario, Canada, served as the case. Three data sources were used: an evaluation log, interviews, and weekly e-newsletters. Three broad themes emerged around the importance of context, efforts supporting knowledge translation, and the building of KT capacity.

Keywords: evaluation use, knowledge broker, knowledge translation, participatory evaluation

Résumé : La littérature sur l’évaluation a porté largement sur l’évaluation des activités de transfert des connaissances, mais à ce jour il y a peu ou pas d’études publiées sur les tentatives d’utilisation de l’évaluation à l’appui du transfert des connaissances. Cette étude visait à répondre à la question : Comment une évaluation peut-elle soit conçue afin de faciliter le transfert des connaissances ? Un dessin unique d’étude de cas prospective a été employé. L’évaluation d’un clinique de la mémoire dans un contexte de soins primaires en Ontario, Canada, a servi de cas. Trois sources de données ont été utilisées : un journal d’évaluation, des entrevues, et des bulletins électroniques hebdomadaires. Trois grands thèmes sont ressortis : l’importance du contexte, les...
Each year the Canadian Institute of Health Research (CIHR) spends roughly $700 million on health research (Graham & Tetroe, 2007). Despite Canada’s clear commitment to research, the literature has consistently demonstrated that transfer of research findings into practice is slow, complex, and often unpredictable (Bowen & Graham, 2013). As a result, a significant gap exists between what is known from the literature and what is practiced (Bowen & Graham, 2013). There is a rapidly growing body of evidence in health care focused on the translation of knowledge. Knowledge translation (KT) is defined as “a dynamic and iterative process that includes the synthesis, dissemination, exchange, and ethically sound application of knowledge to improve health, provide more effective health services and products, and strengthen the healthcare system” (Canadian Institute of Health Research, 2013).

The literature of both KT and program evaluation has focused on the evaluation of KT activities (Ashley, 2009; Brousselle, Contandriopoulos, & Lemire, 2009; Chambers, Wilson, Thompson, Hanbury, Farley, & Light, 2011; Davison, 2009; Ginexi & Hilton, 2006; LaBelle Oliver, 2009). It is significant that to date there has been little, if any, record of attempts to use evaluation in support of knowledge translation. The objective of this article is to introduce a KT-informed evaluation. This is a novel approach for thinking about both evaluation and knowledge translation, and one that has not previously been described. The article will describe the strategies and mechanisms used to influence KT during an evaluation and illustrate the role of an evaluator in an evaluation designed to facilitate knowledge translation.

**KNOWLEDGE TRANSLATION**

Many terms have been used to describe KT including knowledge transfer, knowledge exchange, knowledge mobilization, research utilization, implementation research, and dissemination (Graham et al., 2006). Although each of these terms has a similar meaning, they do not cover the breadth of what is meant by concept knowledge translation, that is, all steps between the creation of new knowledge and its application. Within Canada, and in particular health care, the Knowledge to Action (KTA) process (Graham et al., 2006) is used to conceptualize knowledge translation.

The KTA cycle is divided into two components: knowledge creation and action. Within the knowledge creation phase, knowledge is synthesized into products and tools for clinical application, while the action phase consists of activities to assist the application of knowledge. Knowledge is primarily that which is derived from empirically based research; however, the definition provided
Two broad forms of KT exist: end-of-grant KT and integrated KT (Gagnon, 2011). End-of-grant KT refers to the dissemination of research findings upon project completion, and most of the literature has focused on this (CIHR, 2013). This form of KT has traditionally focused on researcher-initiated activities that push research findings into practice; for example conference presentation, clinical practice guidelines, and actionable knowledge nuggets (CIHR, 2013). There is however, little definitive evidence to support any one end-of-grant KT strategy and there is now a clear recognition of the context specific nature of KT (Bowen & Graham, 2013; Greenhalgh, 2010; Greenhalgh & Wieringa, 2011; Grimshaw et al., 2004; Menon, Korner-Bitensky, Kastner, McKibbon, & Straus, 2009; Mitton, Adair, McKenzie, Patten & Waye-Perry, 2007). As a result an increasing emphasis is now being placed on developing collaborative partnerships between researchers and end users to better understand local context, and knowledge needs to facilitate knowledge use (Bowen & Graham, 2013; CIHR, 2013; Jones, Cifu, Backus & Sisto, 2013; Kitson & Bisby, 2008).

Integrated knowledge translation (IKT) is the term used to describe this approach and refers to the “active collaboration between researchers and research users in all parts of the research process” (Graham et al., 2006, p. 21). IKT has similarities to participatory research, action research, or participatory action research (Gagnon, 2011). The common theme in all of these approaches is that research findings will be more relevant and therefore implemented by the end users if they are actively involved in all phases of the research process (Gagnon, 2009).

EVALUATION AND KT

The central focus of evaluation is on practice-driven questions, with the intended use of both its processes and results being directed to improving programs and organizations (Weiss, 1998). The field of evaluation has long been interested in issues of use, with ample illustrations of different types of use (Kirkhart, 2000; Mark & Henry, 2004; Patton, 1998, 2007; Shulha & Cousins, 1997). Patton (2008) has written about utilization-focused evaluations, which he describes as an “evaluation done for and with specific intended primary users for specific and intended uses” (p. 39).

Although the literature on use has focused specifically on the evaluation process and results, KT emphasizes the application of synthesized research to enhance health and health services (CIHR, 2013). Adding a KT lens can intentionally integrate synthesized research into the evaluation, connect programs to clinical and research networks, and conceptualize evaluation as mechanism to translate knowledge into practice. Currently there is little evidence to describe how specifically evaluation may be used to support KT or the role of the evaluator in this process.

One potential role for evaluators is that of knowledge broker. Knowledge brokers are an emerging KT strategy and described as “persons or organizations
that facilitate the creation, sharing, and use of knowledge” (Meyer, 2010, p. 119). The literature has described knowledge brokers as being responsible for a range of activities including linking researcher with knowledge users, appraising and disseminating relevant literature, identifying knowledge sources, and adapting knowledge for local contexts (Conklin, Lusk, Harris, & Stolee, 2013; Dobbins et al., 2009; Lomas, 2007; Rivard et al., 2010). To explore this potential role and the evaluation strategies and activities to support knowledge translation, this study sought to answer the overarching question: How can evaluative inquiry be designed to facilitate knowledge translation?

**CONTEXT**

An evaluation of a memory clinic at an interprofessional primary care organization in the province of Ontario, Canada, provided the context in which to describe a KT-informed evaluation. The primary care clinic in which the program operates was a newly formed health organization that opened in the spring of 2011. The evaluation was conducted between May 2012 and December 2012.

The Memory Clinic was part of an informal group of primary-care-based memory clinics within the province of Ontario. With long wait times to access specialist services, the objectives of the Memory Clinic were to facilitate the early diagnosis of memory disorders and provide community and caregiver support in a primary care context. Patients and caregivers attended a two-hour interprofessional assessment. Following the assessment a diagnosis was made and an individual care plan was provided. The Memory Clinic was offered on a monthly basis to patients with memory impairments and their families and was delivered by an interprofessional team of health providers including two physicians, two nurses, an occupational therapist, a social worker, a community pharmacist, and an Alzheimer Society representative (Lee et al., 2010).

**EVALUATION APPROACH**

The evaluation was grounded in participatory evaluation (Cousins & Whitmore, 1998) and informed by efforts to support a KT approach to evaluation (Donnelly, 2013). *The Program Evaluation Standards* (Yarbrough, Shulha, Hopson, & Caruthers, 2011) provided a foundation to conduct an ethical and quality evaluation. A KT-informed evaluation is ultimately concerned with utility, and this evaluation paid particular attention to the utility standards. The intention of bringing these approaches together was to orchestrate a quality and collaborative evaluation that facilitated the development and refinement of the Memory Clinic through the ongoing translation of research and evaluation data.

*Participatory Evaluation*

There has been increasing recognition that engagement in the research process is an important factor in supporting the translation of knowledge (Bowen &
Graham, 2013; Jones et al., 2013; Menear, Grindrod, Clouston, Norton, & Legare, 2012). The underlying premise of integrated KT is the engagement of both knowledge creators and users in systematic inquiry (Graham et al., 2006). As IKT is grounded in participatory forms of research, this evaluation was designed to support KT by adopting a participatory approach.

A participatory approach to evaluation involves some degree of collaboration between those conducting the evaluation and the stakeholders (Cousins, Whitmore, & Shulha, 2013). Cousins and Whitmore (1998) have described two types of participatory evaluation: practical participatory evaluation (PPE) and transformative participatory evaluation (TPE). The latter emphasizes program empowerment in an effort to “democratize social change” (p. 90) and is aligned with participatory action research in principles and background (Cousins & Whitmore, 1998). The former approach was adopted for the evaluation as it is well positioned to inform KT due to its emphasis on the practical needs of knowledge users in the practice setting and its “focus on increasing the use of evaluation results through the involvement of intended users” (Smits & Champagne, 2008, p. 428).

Cousins and Whitmore (1998) outlined three dimensions of collaborative inquiry: control of technical evaluation decisions, diversity of stakeholders selected for participation, and depth of participation. Each dimension was considered in the design of the Memory Clinic evaluation. For this current evaluation, the evaluator ultimately led the technical evaluation decisions, with strong input obtained from program members at all stages throughout the evaluation. If this were to be envisioned on the 3-D participatory evaluation signpost (Cousins & Whitmore, 1998), technical control would fall slightly toward the evaluator on the vertical dimension. All organizational stakeholders were represented in the Evaluation Committee, whose membership included Memory Clinic clinicians along with the Alzheimer Society representative and the organization’s executive director, which thus provided clinical, community, and administrative perspectives. The original intention was to include a patient on the Evaluation Committee; however, due to both pragmatic (patients unable to attend meetings) and philosophical (concerns over patient confidentiality) issues, a patient representative was not part of the final committee membership. Although the absence of this stakeholder group may have resulted in an underrepresentation of the patient and family perspective, the mission of the Alzheimer Society is to support individuals with Alzheimer’s. As a result the Alzheimer Society representative on the Evaluation Committee brought both a community perspective and a strong emphasis on patients and families.

Members participated in the evaluation through monthly evaluation process meetings and e-mail communication. The role of the Evaluation Committee was to offer feedback and input into all aspects of the evaluation including the design, interpretation of data, and translation of findings into the program. Due to time constraints, face-to-face meetings could only be scheduled on a monthly basis. As a result, weekly electronic updates were sent to the Evaluation Committee and community stakeholders as a way to support the team’s ongoing involvement in
the evaluation, provide research updates, and share information on knowledge networks.

**Knowledge Translation-Informed Evaluation**

Drawing on both the knowledge translation and evaluation literature, a KT-informed evaluation was designed to be intentional in facilitating the application of emerging evaluation knowledge into practice and attended to the empirical evidence (original studies or synthesized knowledge) that grounded the program and the clinicians within the program. The evaluator was cognizant of how empirical and formalized knowledge informed each phase of the evaluation, ensuring that (a) evaluation questions are informed by both context and external evidence, and (b) emerging and final findings were considered in light of current research.

A KT approach to evaluation involved the active development of opportunities for clinicians and other stakeholders to develop the skills to engage in knowledge translation. A KT-informed evaluation also looked to facilitate connections and collaborations among knowledge networks (i.e., Canadian Dementia Research and Knowledge Exchange), local researchers/evaluators, and communities of practice.

**METHODS**

A single case study design was used (Stake, 1995; Yin, 2009) to describe the strategies and mechanisms to influence KT during an evaluation of a memory clinic. Given that this approach to evaluation has not been formally described, a case study design offered an opportunity to gather an in-depth understanding of one exemplar evaluation.

**Data Collection**

The case study was descriptive in nature and used three data sources: an evaluation log, interviews, and weekly e-newsletters. The evaluation was conducted over eight months, from April 2012 to December 2012. See Figure 1.

<table>
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<tr>
<th>Data Collection Timeline</th>
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<td>Data Collection</td>
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<td>Interview</td>
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**Figure 1. Data Collection Timeline**

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Evaluation Log

An evaluation log was maintained by the primary investigator (CD), who was also the primary evaluator of the program. Entries were made following interactions with the Memory Clinic to document evaluation processes and KT activities. All evaluation log entries followed the ORID framework, a method for focused discussion presented in the business literature (Stanfield, 2000) that has been adapted to guide reflective journaling (Villeneuve, Jamieson, Donnelly, White, & Lava, 2009). ORID involves four consecutive stages: Objective, Reflective, Interpretive, and Decisional. Each entry attended to the four ORID stages and included (a) a description of the KT event including date and nature of the event, (b) evaluator reaction to the event, (c) interpretation and analysis of the event, and (d) a description of how the KT event will guide future KT activities. Log entries were entered directly and sequentially into a word-processing document. Log entries began in January 2012, four months before the start of the evaluation, to document the planning and conceptualization of the study.

Interviews

Interviews were conducted with the Evaluation Committee members before the start of the evaluation and upon completion. In total 12 interviews were conducted which each lasted between 20 and 60 minutes. All interviews were conducted by the primary author (CD) and followed a semistructured interview guide. Questions sought to identify, understand, and describe any KT strategies used by the Evaluation Committee members. Each interview was digitally recorded and transcribed verbatim by a research assistant.

E-Newsletter

Weekly e-newsletters were sent to the Memory Clinic Evaluation Committee and included evaluation updates, resources, and links. E-newsletters documented KT activities and were the third data source for the study.

Data Analyses

Transcripts and evaluation log entries were read and reread by the primary author, and preliminary codes were established. Evaluation log and interview data were analyzed using inductive line-by-line coding to identify emerging themes. Codes were identified and organized using Atlas.ti, a qualitative data analysis software. Enumeration was used to quantify the frequency at which KT strategies and processes are used. Weekly e-newsletters were reviewed by the primary author and all KT strategies were extracted and organized by type in an Excel spreadsheet. Frequencies for each KT activity were calculated.

Several strategies were used to establish trustworthiness (Golafshani, 2003; Krefting, 1991). Two transcripts were read and independently coded by a second investigator (LS) using the final coding structure. A second strategy to establish trustworthiness involved member checking. Participants were provided with interview summaries and asked to contact the primary author if any errors were
noted, or if additional information should be included. None of the participants reported any errors or provided further information.

A third strategy involved triangulation of data methods, sources, and investigators. Each of the several data methods (interviews, evaluation log, and e-newsletters) contributed to the understanding of the strategies used to support KT during evaluation. Participants included members from a range of disciplines, who were both internal and external to the organization to provide different perspectives and experiences of participating in the evaluation. Finally, the investigation team was made up of two occupational therapists (CD, LL), one evaluation researcher and practitioner (LS), and one educational researcher (DK). The diversity of the team brought unique perspectives to the design, implementation, and analyses and grounded the study in both research and practice.

Ethics approval was provided by University Health Sciences Research Ethics Board (approval #6006766).

RESULTS
Three broad themes emerged in the analyses of the interviews, e-newsletters, and evaluation log: context, supporting KT, and building KT capacity.

1. Context
Context was a strong influence on the KT strategies used throughout the evaluation. Four contextual elements were identified in the evaluation: primary care setting, interprofessional collaborative practice, the developmental phase of the program, and organizational leadership.

Primary Care Setting
As a part of community primary care practice, the Memory Clinic did not have formal connections to the local university. As a result none of the clinicians had direct access to the university educational events (lectures, rounds, in-services) or library resources (electronic journals). The primary author, together with other team members, identified learning opportunities. Sources included dementia networks and, when possible, research articles were identified from open access sources and hard copies were made available to the whole team. “I realize that although I am providing summaries of research none of the team has access to the library system at [local university,] and couldn't access the original articles even if they wanted to” (Evaluation Log, July 26, 2012).

Given the complex and individual needs of each patient in the primary care setting, clinicians had very patient-specific research and knowledge needs. Learning was often required on a patient-by-patient basis. “I am using the internet and am doing relevant searching, but I would rather have something specific to what I am doing” (Memory Clinic Member, P6:6:3). In response, every attempt was made to ensure empirical research and resources offered to the team.
were relevant to current clinical issues and needs. The patient-specific focus also influenced evaluation activities and how emerging results were shared to enhance application.

Sharing patient data is an excellent way to engage clinicians in shaping the program. The clinicians are all very engaged… I can see one of the roles of a KT informed evaluation, in particular, is to make measurement and outcomes clinically relevant. (Evaluation Log, July 26, 2012)

**Interprofessional Primary Care**

Interprofessional collaboration is a new model in the primary care practice. The Memory Clinic offered team members a structured opportunity to work as an interprofessional team and created an environment in which the team was receptive to learning and program development. “I think the fact that the Memory Clinic is new and an exemplar of interprofessional collaboration within the [primary care clinic] creates a deeper commitment to both the evaluation and openness to dementia research and networks” (Evaluation Log, September 13, 2012). The Memory Clinic became a model team within the primary care clinic. “I would definitely like to run every program like the Memory Clinic team just because it is organized and clear and you know what everyone’s role is and everyone has an equal say” (Memory Clinic Team Member, P6:6:11).

The team members were learning about not only each others’ roles, but also their own role. In response the evaluation was intentionally designed and implemented to facilitate team learning by (a) including all members in each element of the evaluation, (b) ensuring evaluation questions attended to the perspectives of all team members, (c) integrating research into the evaluation that was drawn from interprofessional journals and responded to team issues, and (d) identifying dementia networks and communities that were interprofessional in nature.

**Developmental Phase**

The evaluation began before the implementation of the first Memory Clinic. One of the objectives of the evaluation was to inform the development of the program. In the early stages, the evaluation helped the team to articulate the Memory Clinic’s objectives and develop the specific questions and data collection strategies. Initiating the evaluation in the development phase of the program sensitized the team to emerging evaluation data and dementia research and created receptivity to feedback. “Getting the feedback … seeing what kinds of things we can improve on, and then being receptive to feedback” (Memory Clinic Team; P2:2:22). Coupled with receptivity was an openness to make changes. “We have to be able to change what we find needs to be changed” (Memory Clinic Team Member, P3:3:18).

To foster and support a culture of development, communication with the team was frequent and responsive.
It could be that different KT strategies are used depending on where the evaluation sits on the continuum. In developmental [evaluation] it is about building knowledge networks, identifying knowledge resources to build the program, and using ongoing communication strategies to inform the program of data. (Evaluation Log, January 24, 2012)

Organizational Leadership
Organizational leadership was fundamental in supporting a KT-informed evaluation. Two types of leadership were observed: organization-based and practice-based. Over the course of the evaluation the team physician assumed a practice-based leadership role regarding dementia knowledge and modelled the translation of research and evaluation data into practice. Primary care is largely physician-driven, and as a result physicians are influential members on an interprofessional primary care team. In a KT-informed evaluation the importance of physician support in translating knowledge within an interprofessional primary care team cannot be overestimated.

While practice-based leadership served to model and support the integration of evaluation and empirical evidence into practice, organization-based leadership supported the processes and structures to implement a KT-informed evaluation.

I can see that [the executive director] has truly been a champion of this evaluation. … [F]rom an evaluation perspective she has been instrumental. But also from a KT perspective she has been forwarding the weekly newsletters to the broader Family Health Team and has emailed me content to include. Without someone at this level taking on this role and supporting the processes it would be very difficult to engage the group and to support a KT approach. (Evaluation Log, September 13, 2012)

Examples of organization-based leadership included coordination of monthly process meetings, management of communication within the team and the larger primary care practice, support of research opportunities, and facilitation of program refinements. Each of these activities created a context that supported KT and a responsiveness to the evaluation process.

2. Supporting Knowledge Translation
Several activities that supported knowledge translation were woven throughout the evaluation. KT activities were both evaluator- and team-initiated and both planned and spontaneous. Three intentional activities were used by the evaluator to support knowledge translation: weekly e-newsletter, monthly process meetings, and maintaining a presence. Table 1 provides an overview of the strategies and approaches that were used to support KT throughout the evaluation.

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### Table 1. Knowledge Translation Activity

<table>
<thead>
<tr>
<th>KT activity</th>
<th>Initiated by Process meetings</th>
<th>Frequency</th>
<th>Intended knowledge user</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infusing empirical evidence into evaluation processes-Developing program objectives, evaluation questions, patient and caregiver feedback questionnaire</td>
<td>Evaluator</td>
<td>8 articles linked to evaluation processes</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Distribution of journal articles</td>
<td>Evaluator</td>
<td>12(^a)</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Patient case reviews</td>
<td>Evaluator</td>
<td>3</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Summary of emerging evaluation findings</td>
<td>Evaluator</td>
<td>5(^b)</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td><strong>E-Newsletter</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation updates</td>
<td>Evaluator</td>
<td>26</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Journal article summaries</td>
<td>Evaluator</td>
<td>25</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Media reviews</td>
<td>Evaluator</td>
<td>5</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Dementia network learning events and resources</td>
<td>Evaluator</td>
<td>9</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Alzheimer Society events and resources</td>
<td>Evaluator</td>
<td>26</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Research conferences</td>
<td>Evaluator</td>
<td>5</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Local dementia research</td>
<td>Evaluator</td>
<td>3</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Resources</td>
<td>Evaluator</td>
<td>3</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td><strong>Other KT activities</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribution of journals articles at Memory Clinics</td>
<td>Team</td>
<td>1</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Distribution of notices of upcoming community events at Memory Clinic</td>
<td>Team</td>
<td>4</td>
<td>Memory Clinic Team</td>
</tr>
</tbody>
</table>

(Continued)
Weekly E-Newsletter

A weekly e-newsletter was one of the primary KT activities used throughout the evaluation. Each newsletter included four elements: (a) evaluation updates (working documents, summary of meetings, patient feedback summaries), (b) a summary of a research article or notable item in the media related to a clinical issue or discussion, (c) news from or links to dementia networks and communities of practice, and (c) local Alzheimer Society events. The e-newsletter was sent through e-mail to members of the Memory Clinic and selected members of the broader community, including the lead physician of the provincial Memory Clinic network. The newsletter was also forwarded to all physicians within the primary care practice. See Figure 2 for an example of a weekly newsletter. In total 27 newsletters were sent over the course of the evaluation and included 23 research articles, 5 news events, and connections to 9 dementia networks or communities.

Table 1. (Continued)

<table>
<thead>
<tr>
<th>KT activity</th>
<th>Initiated by Process meetings</th>
<th>Frequency</th>
<th>Intended knowledge user</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail alerts regarding upcoming activities</td>
<td>Team</td>
<td>8</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Webinars</td>
<td>Team/ Memory Clinic Network</td>
<td>1</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Dementia-related seminars</td>
<td>Team</td>
<td>2</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>E-mail alerts regarding research/resources</td>
<td>Team</td>
<td>4</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Dementia clinical reasoning flowcharts</td>
<td>Team</td>
<td>1</td>
<td>Memory Clinic Team</td>
</tr>
<tr>
<td>Community educational events</td>
<td>Team</td>
<td>3</td>
<td>Patients/caregivers</td>
</tr>
<tr>
<td>Patient education materials</td>
<td>Team</td>
<td>3&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Patients/caregivers</td>
</tr>
<tr>
<td>Primary Care Clinic blog</td>
<td>Team</td>
<td>1 entry</td>
<td>Patients/caregivers</td>
</tr>
</tbody>
</table>

<sup>a</sup>Total number of articles distributed to the team. <sup>b</sup>Number of times emerging evaluation results were summarized and discussed. <sup>c</sup>Number of educational packages (1 personalized education package provided by the Alzheimer Society, 1 dementia information available at Memory Clinic, 1 driver resources).

Weekly E-Newsletter

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The e-newsletter provided a mechanism to intentionally integrate pertinent research into the evaluation in a format that could be viewed at a convenient time and location. The provision of timely and emerging evaluation findings was congruent with the developmental phase of the program. “It is difficult trying to balance your day in clinical practice in general with the research side, so actually having someone send it to me is pretty good and at the end of the day to read” (Memory Clinic Team Member, P1:1:2).

Program members identified the newsletter as one of their primary sources of research over the course of the evaluation.

[The evaluator] would send out the memory clinic newsletters; all the research that [the evaluator] had talked about or identified in it, that's how I got my research. So that is a big part of informing my work that I am doing that was keeping up on what [the evaluator] was sending us. (Member Clinic Team Member P1:1:1)

The newsletters also helped to situate the evaluation within the broader research on memory disorders.

The weekly updates were good, I read everything, and it gave me a chance to be a part of the community and seeing that people are out there doing similar things and it really opened my eyes to what research is being done in practice. (Memory Clinic Team Member, P4:4:4)
Monthly Process Meetings

Monthly Process Meetings were held one to two weeks after each Memory Clinic. The objectives of the meeting were to reflect on the previous Memory Clinic and identify any refinements to the program delivery. The format of the Process Meeting was open and therefore responsive to evolving issues. The Process Meeting provided a face-to-face opportunity to infuse KT activities into the evaluation and included (a) patient case reviews, (b) sharing of formalized (i.e., research articles) and tacit (practice examples) knowledge, and (c) the intentional integration of relevant research into evaluation activities. More than simply a series of activities, the meetings helped to build a foundation of knowledge translation. “Process meetings set an excellent tone of program development and the evaluation lens is a natural fit” (Evaluation log, July 26, 2012).

Three patient case reviews were included in two of the six Process Meetings. The review process included an in-depth chart review and links to relevant literature and resources. Critical clinical events triggered the reviews in both cases, offering the team timely and relevant feedback and an opportunity to examine what works (or doesn’t) and how it works. “[C]ase studies I find really helpful … how do we make it work, what does that mean and how does that translate” (Memory Clinic Team Member, preP3:3:5). Case reviews also helped to contextualize data and general clinical issues such as driving and dementia. “I think the case reviews provided an opportunity to review the data on an individual patient level, which allows the team to interpret the data in relation to a specific clinical event, rather in an aggregated way” (Evaluation Log, August 17, 2012).

Process meetings provided a forum to embed research within evaluation processes. Aligned with a participatory approach, the program members were actively involved in the development of program goals, evaluation questions, and interpretation of emerging data. Pertinent research was identified and intentionally embedded into each process, either through a summary of a key article or distribution of related research in the weekly e-newsletter.

My plan for the patient satisfaction questionnaire is to purposefully highlight the article … which I will draw questions from. I hope to demonstrate how their own questions [that the team identified] mesh with what is found in the literature and provide a more structured framework for their own thinking. (Evaluation Log, July 10, 2012)

Having a presence: Supporting team initiated KT

Many KT activities occurred over the course of the evaluation that were not initiated by the evaluator, but influenced the evaluator role. While there was intentionality in supporting KT during the Process Meeting and e-newsletters, there was an organic quality in how clinicians shared both tacit and formalized knowledge. There were many examples of team members sharing resources including research articles, websites, and community dementia events during the Memory Clinic. These resources were typically offered to the group in an informal manner. In other cases the team initiated KT activities that were targeted to specific
knowledge needs of the Memory Clinic, such as participation in a webinar and organizing an in-service by a local expert.

It was critical to be attuned to the strategies the program was initiating and engaging in, as these in turn guided the KT activities used by the evaluator. An awareness of how the team translated knowledge and the types of knowledge being translated highlighted the importance of ensuring the evaluator had a presence within the program to be responsive to the knowledge needs that were often not formally identified. The attendance of the evaluator at each Memory Clinic not only provided an understanding of the clinical processes and the knowledge needs of the team but also reinforced the importance of evaluative inquiry.

I may not have a clinical role, but I can see the importance of the informal sharing of knowledge and team building. As an evaluator this can help me provide relevant evaluation data, but from a KT perspective it enables me to ensure the community/network information is relevant to the team and the research informing practice connects with specific patients and issues. I also get to see how the team shares information and the type of knowledge they convey. (Evaluation Log, August 16, 2012)

The Alzheimer Society representative played a unique role in supporting KT within the program and deserves specific mention. From a clinical perspective she linked patients to community programs. However, from a KT perspective the addition of a community stakeholder offered many unique opportunities. The Alzheimer Society representative regularly communicated local dementia events through e-mails and distribution of brochures/handouts, introduced research conducted by the Alzheimer Society, and created venues for Memory Clinic team members to translate knowledge to patients and caregivers in the community. For example, two Memory Clinic team members developed education programs for individuals with dementia and their caregivers. These programs were held at the Alzheimer Society and advertised through the Alzheimer Society.

The community stakeholder not only enhanced the evaluation process but also served as an intermediary for dementia knowledge.

[The Alzheimer Society Rep] does an excellent job of connecting with the community and using those connections to facilitate KT … she does an excellent job modelling this to the team … and brings a broader community perspective in. I think the community linkage is critical and [the Alzheimer Society Rep] has really demonstrated this … I think having a community partner on a primary care team is critical from a KT perspective … I see the richness at multiple levels: (1) as an intermediary for the team, to provide a broader perspective, and (2) to support KT to patients/caregivers/families. (Evaluation Log, November 14, 2012)

3. Building Capacity to Engage in Knowledge Translation

Building the capacity of the Memory Clinic to engage in KT activities was viewed as building the skills of team members to identify and apply relevant and quality knowledge, to support the delivery of the Memory Clinic and engage in scientific
inquiry. Capacity-building was largely done through the participatory processes and KT activities of the evaluation.

A local conference on aging was identified by the evaluator (CD) and provided an opportunity for the team to present the Memory Clinic evaluation protocol. None of the members had previously presented at a conference, and the process of submitting an abstract, developing a poster presentation, and presenting at the conference offered a way to develop the team’s skills and build KT capacity.

I think submitting to the [aging conference] is an excellent KT capacity-building opportunity. It will allow the team to go through the process of writing up and submitting an abstract to a conference. If successful, they will then go through the process of crafting a poster. Because the conference is local it is the ideal opportunity to network both at a clinical level, but also be involved as presenters. I think including a dissemination component into the evaluation allows the team to see how their own data can inform both their team [and] the broader community. (Evaluation Log, August 17, 2012)

In addition to the conference, three opportunities arose over the course of the evaluation for the Memory Clinic to engage in research projects. As part of the provincial network of Memory Clinics, team members were invited to participate in a research project on knowledge translation. Two other research projects connected the team to a local and national group of researchers. Although neither research project was underway at the end of the evaluation, both served to establish connections with researcher networks and will ultimately contribute to building KT capacity of the team.

DISCUSSION

In this evaluation designed to facilitate knowledge translation, the evaluator functioned as a knowledge broker, situating emerging program data within the broader research literature, disseminating contextually relevant literature, and connecting the program to conferences, research opportunities, and dementia networks.

Knowledge brokering has been described as working “between worlds” (Meyer, 2010, p. 122), and it has been argued that evaluation is ideally situated to bridge the worlds of research and practice (Brown Urban & Trochim, 2009). Brown Urban and Trochim (2009) introduced the Systems Evaluation Partnership (SEP), a process that maps empirical evidence to evaluation questions and outcome measures using visual causal diagrams. While SEP is one specific approach to supporting research-practice integration through evaluation, the current study demonstrates a broader role for an evaluator in a KT-informed evaluation and one that is woven throughout the evaluation.

Conklin and colleagues (2013) have described knowledge brokers as agents who support the capacity of groups to “find, create, share, and use relevant knowledge” (p. 5). Similarly within evaluation, the goal of evaluation capacity building
(ECB) is “sustainable evaluation practice” (Preskill & Boyle, 2008, p. 444). The current study drew on the ECB literature and used a participatory approach to engage the team in evaluation and KT activities with the intent to build the capacity of the team to create and translate knowledge. Preskill and Boyle (2008) presented a model of ECB and identified 10 strategies to develop evaluation capacity of individuals and groups. The current study employed three of the outlined strategies to build the team's KT capacity: involvement in the evaluation process, meetings, and use of technology. Given the KT focus, participation in a scientific conference and connections to research networks were additional strategies used to build KT capacity. No specific training was included to build KT skills; however, future evaluations could include workshops or seminars. Training could have a dual emphasis on evaluation and KT skills, supporting the role of evaluation as a vehicle to bridge research and practice.

In a synthesis of the ECB literature, Labin and colleagues (2012) also identified organizational-level strategies including building leadership support. Garcia-Iriarte, Suarez-Balcazar, Taylor-Ritzler, and Luna (2011) have described how one individual served as an effective catalyst for building evaluation capacity within a community-based organization. Similarly, in health care, a systematic review found that opinion leaders, both alone or with other strategies, promoted evidence-based practice (Flodgren et al., 2011). The current study highlights not only the importance of organizational leadership, but also the fact that different forms of leadership, both practice- and organization-based, supported KT in primary care settings in different ways. Organization-based leadership served as a catalyst and provided the structure to conduct a KT-informed evaluation. In contrast the practice-based leader functioned as an opinion leader, shaping practice and modelling knowledge translation.

Being attuned to the organizational context has been identified as an essential element for both KT and evaluation (Bowen & Graham, 2013; Graham et al., 2006; Jones et al., 2013; Yarbrough et al., 2011). The primary care setting has unique issues related to knowledge translation. Primary-care clinicians see patients when health issues first arise and when issues may not be clearly articulated. Primary care services are broad and provided to a range of conditions across the lifespan (Beaulieu et al., 2008; Menear et al., 2012). In addition, the literature has found that primary care clinicians rely heavily on interactions with colleagues to inform practice (Gabbay & le May, 2004; Pappano, Connes, McIntosh, Humiston, & Roma, 2008). With the above factors in mind, Menear and colleagues (2012) have encouraged the field of primary care to adopt an integrated KT approach as a way of enhancing uptake of research findings. The current study has demonstrated how a KT-informed evaluation could serve to facilitate the integration of patient-specific and contextually based knowledge. Further research will be needed to demonstrate how such an approach can influence the practice of primary care clinicians.

The KT strategies reflected the development stage of the program and the approach of the evaluation. Frequent communications and meetings fit with the
early knowledge needs of the team and their openness to making changes. However, a KT approach might look very different in an established program using a summative evaluation. Rather than exposing the program to new research or establishing connections to knowledge networks, the evaluation/evaluator might focus on building the capacity of the program to engage in KT activities, deepen relationship within networks, or function more formally as a broker between researchers in the field and the program. Further research needs to be done to understand the approaches and strategies of a KT-informed evaluation at various program phases.

While the program’s development stage was aligned with certain KT activities, a participatory approach was fundamental to the KT-informed evaluation (Cousins & Whitmore, 1998). This study demonstrated that not only was stakeholder participation important, but the evaluator also required a deep level of participation within the program. Huberman (1999) introduced the term “sustained interactivity” (p. 291) to describe the long-term, joint engagement between researcher and teachers. Huberman (1999) found that sustained interactivity resulted in enhanced utilization of research in practice and that interactions were critical in the reciprocal flow of knowledge between researchers and practitioners. This study supports Huberman’s body of research and highlights the importance of evaluator engagement with the program and its stakeholders.

In looking at the KTA cycle, the study highlights the role of evaluation in supporting knowledge translation, not only at the end of the cycle, but through the processes of evaluation. Conceptualizing evaluation as a change process as well as an approach to measure change opens the door for evaluation to be considered as a mechanism of IKT.

**IMPLICATIONS FOR EVALUATION**

This research has several implications for the field of evaluation. The Program Evaluation Standards offer “an integrated guide for evaluating programs” (Yarbrough et al., 2011, p. xii) and were designed to apply to a wide range of settings from health care to universities to government organizations. As a result of their broad reach, the implications of this research will be explored through the lens of these standards (Yarbrough et al., 2011).

**Utility Attribute**

This study encourages a broader conceptualization of evaluation use. A KT-informed evaluation is ultimately concerned with utility, and this research can inform the Utility Standards by offering an expanded set of purposes and contexts wherein evaluators can apply their repertoire of skills and thus intentionally employ evaluation as a mechanism of IKT. Table 2 attends to each of the Utility Standards and offers additional recommendations to consider when implementing a KT-informed evaluation.
### Table 2. Utility Attribute: Additional Recommendations for KT-Informed Evaluation

<table>
<thead>
<tr>
<th>Program evaluation: Utility standards</th>
<th>Additional recommendations for the implementation of KT-informed evaluation</th>
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<tbody>
<tr>
<td>U1: Evaluator credibility</td>
<td>• Stay current with the empirical evidence that informs the program.</td>
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<td></td>
<td>• Become aware of research networks/communities that can support the program.</td>
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<tr>
<td>U2: Attention to stakeholders</td>
<td>• Create conditions and opportunities for stakeholders to share resources, empirical evidence, community programming that can further inform the program, and the emerging evaluation findings.</td>
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<td>U3: Negotiated purposes</td>
<td>• Be explicit in articulating that one of the purposes of the evaluation is to support knowledge translation.</td>
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<td>• Help stakeholders develop ways to talk about evaluation and develop with stakeholders a shared understanding of the language associated with knowledge translation.</td>
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<tr>
<td>U4: Explicit values</td>
<td>• Learn what knowledge and knowledge translation activities stakeholders value, how strongly these values are held, and the degree to which they are congruent with organizational values.</td>
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<tr>
<td></td>
<td>• Reflect on the implications of specific, strongly held values of knowledge and KT activities.</td>
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<td></td>
<td>• Respect all forms of knowledge (tacit and explicit) that stakeholders contribute.</td>
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<tr>
<td>U5: Relevant information</td>
<td>• Ensure empirical evidence attends to the context and needs of the program.</td>
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<td></td>
<td>• Retain responsibility for the usefulness of sources of knowledge.</td>
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<tr>
<td>U6: Meaningful processes and products</td>
<td>• Evaluators who make the effort to learn about how various stakeholders view knowledge and the barriers to KT will be better positioned to build meaningful processes.</td>
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<tr>
<td></td>
<td>• Adapt KT processes to address diverse stakeholders needs.</td>
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<tr>
<td></td>
<td>• Regularly revisit stakeholders’ KT needs and expectations.</td>
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(Continued)
Feasibility Attribute

The Feasibility Attribute attends to the “factors affecting evaluation feasibility” (Yarbrough et al., 2011, p. xxvii). The attribute is relevant to this study due to the duration and intensity of the evaluators’ involvement in the KT-informed evaluation. Several intentional activities were used to support knowledge translation that required not only significant time to implement but the professional background to identify appropriate resources and the skills to access the appropriate scientific journals and synthesize and summarize key ideas. In other contexts, these activities may not be possible to implement for a host of reasons. While evaluators must balance time and financial resources within the context of the program, additional research is required to determine “what” and “how much” is in fact required to support KT during evaluation.

Implications for Evaluators

There remains a widespread belief that the key to effective evaluator practice is the application of strong methodological skills, and that these skills can be equally and aptly applied to a range of contexts, programs, and fields of practice. This view is evident in the discussion regarding evaluator competencies (King, Stevahn, Ghere, & Minnema, 2001; Stevahn, King, Ghere, & Minnema, 2005). The Canadian Evaluation Society (CES) has expanded on this notion in requiring the demonstration of five broad evaluator competencies to receive a designation of “evaluator.” These competencies are reflective practice, technical practice, situational practice, management, and interpersonal practice (CES, 2013). It is particularly relevant to note that there is little if any discussion about the need for evaluators to have current content knowledge related to the evaluand or its context (CES, 2013).

Table 2. (Continued)

<table>
<thead>
<tr>
<th>Program evaluation: Utility standards</th>
<th>Additional recommendations for the implementation of KT-informed evaluation</th>
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| U7: Timely and appropriate communicating and reporting | • When possible, embed KT activities into existing program structures through such mechanisms as meeting agendas and websites.  
• Develop a KT plan for translating the evaluation results within the broader community |
| U8: Concern for consequences and influence | • Assess formally and informally the consequences of KT activities.  
• Be aware of KT strategies that are known to support long-term changes in health practices and patient outcomes. |
The introduction of a KT-informed evaluation has potentially significant implication for evaluators. Most importantly, evaluators will need to have content knowledge about the program to integrate relevant external evidence, connect programs to knowledge networks, and conduct activities to build the KT capacity of organizations.

In a KT-informed evaluation, evaluators will adopt a knowledge-brokering role. Along with content knowledge, evaluators will be required to have skills to respond to the knowledge needs of the program and organization, identifying, summarizing, and communicating relevant external evidence. This evidence may not necessarily be limited to published empirical research. Relevant evidence might include forms of clinicians’ explicit and implicit knowledge that when examined might inform the program, the evaluation process, and results. In this research, newspaper articles, interviews, and blog postings were included, each item linking to an event within the program and scrutinized for rigour and relevancy. As a knowledge broker, the evaluator is also required to be aware of the potential connections between the programs and organizations to relevant knowledge and research networks. These connections will create two-way relationships; programs would gain external knowledge, but also have the opportunity to translate program knowledge outward.

It will be important to continue developing an understanding of the roles and competencies required of an evaluator conducting KT-informed evaluations. Davison (2009) has identified a list of evaluation indicators to support the evaluation of KT interventions and has classified these under two broad principles of knowledge translation: interaction and knowledge use. These indicators can also serve to identify activities, roles, and strategies that an evaluator might employ in a KT-informed evaluation.

There can be many potential benefits for the evaluator who adopts a KT-informed evaluation. In an environment where there is heightened interest in the translation of knowledge, explicitly attending to KT can broaden the evaluator’s influence and relevance. By attending to KT, evaluators can more explicitly draw on the growing research in KT to further support evaluation practices. Adopting a KT-informed approach to evaluation can also serve as a catalyst to build further skills and knowledge to foster use.

While there are clear benefits, there are evaluators who may feel that adopting a KT-informed lens is beyond the scope of an evaluator’s role. Others may feel that evaluators who are deeply embedded in a program will become more aligned with organizational development than evaluation. For those evaluators who do not have direct access to large libraries (i.e., government and university libraries), it may be difficult and expensive to gain quick and easy access to external evidence. Given the ongoing focus on knowledge translation, evaluators will need to consider their role in relation to KT and begin to consider the contribution and role of evaluation.

It must be remembered that this study was limited to a single case. Given the influence of context on knowledge translation, multiple case studies would have
provided further insights into strategies and approaches used in a KT-informed evaluation. The primary author wore the hat of both evaluator and researcher, which offered deep immersion within the program. While every effort was made to enhance trustworthiness, this dual role may have unduly influenced the responses provided by the Evaluation Committee members. The evaluation occurred in the developmental phases of the program, and it is anticipated that the KT will continue to evolve and be shaped by personal growth and organizational development. The study was descriptive in nature and, although it provides insights into the nature of a KT-informed evaluation in a primary care context, the results cannot be broadly generalized.

CONCLUSION
This study provides the first known description of a knowledge translation-informed evaluation and suggests that adding KT to the repertoire of evaluation purposes is a natural extension of the field. The evaluation community has a longstanding interest in the use of systematic evaluative inquiry processes and products. Given that the purpose of KT is to engage individuals in the synthesis, dissemination, exchange, and ethically sound application of knowledge, collaborative evaluative approaches appear to promote this interest in a potentially powerful way.

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