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Abstract

Toolkits have become a popular strategy for knowledge utilization, but are they effective in translating intellectual knowledge into practical knowledge? What does "use" mean? Furthermore, how can the utilization of toolkits-as-knowledge, be meaningfully evaluated? This paper is an examination of these issues within the context of toolkits intended to enhance the capacity of rural communities to deliver palliative care.

Keywords: palliative care; rural; knowledge utilization; knowledge utilization evaluation

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1.0 Introduction

Like their urban counterparts, most rural residents want to die at home and not in institutions. But dying at home in rural locations is compromised by the limited provision of community based palliative care i.e. a community integrated palliative model that allows palliative care to be delivered in a variety of settings and by various providers so service is increased in a cost effective and sustainable way, as is currently the situation in Canada (Canadian Hospice Palliative Care Association, 2008; Romanow, 2002). Demographically, Canada's elderly population is increasing. It is estimated that the number of those over the age of 65 will represent

22.5% of the total population by the year 2026 (Statistics Canada, 2007). There will thus be a large increase in the number of people in need of palliative care in the near future (Statistics Canada, 2005). According to the latest Census data, up to 30% of Canadians live in rural areas (Statistics Canada, 2008), yet rural and remote communities are critically underserved with respect to the provision of health and related services including palliative care (Kelley, 2007; Romanow, 2002).

Palliative care is interdisciplinary by nature as it responds to the physical, emotional and spiritual needs of dying patients and their families. It requires an interdisciplinary team approach to carry out its mission of enabling people to die with dignity in a location of their choice (Mahmoud-Yousef, King, & Dale, 2008; Sepulveda, Marlin, Tukuo, & Ullrich, 2002). The various disciplines involved in palliative care provision include doctors, nurses, social workers, chaplains, personal support workers, and others (Crawford & Price, 2003). While palliative care has been interdisciplinary since its origins, building a team and sustaining an interdisciplinary palliative care program can be challenging: barriers include inadequate communication, role overload, leadership dilemmas and a variety of internal and external stressors (Bliss, Cowley, & While, 2000; Crawford et al., 2003). Furthermore, rural palliative care is different from urban, and faces such unique challenges as scarcity of resources e.g. health care professionals, urban-centric policies, health professional resistance to collaboration, and obstacles of providing services in rural environments e.g. physical geographic barriers, among others. It is essential that health care providers, administrators, and policy makers work together now to develop interdisciplinary, rural community-based programs and services in order to ensure that every Canadian, regardless of geographic locale, experiences comfort, dignity, and choice at the end of life. Effective strategies to enhance rural community capacity to deliver palliative care, is the subject of this paper.

1.1 Enhancing Rural Community Capacity to Develop Palliative Care Programs

Knowledge is a critical factor in enhancing both individual and community capacity. Knowledge, however, is diverse. Machlup (1980) classified knowledge into five types: intellectual knowledge, practical knowledge, pastime knowledge, spiritual knowledge and unwanted knowledge. According to Kelley, Habjan, & Aegard (2004), interdisciplinary health professional education in palliative care incorporates many of these diverse types of knowledge in order to enhance the capacity of practitioners. Educational components include “broad philosophical components of palliative care as well as aspects of care related to pain and symptom control, communication with patients and families, meeting psychological and spiritual needs, team building, and stress management” (p. 308). We argue that diverse types of knowledge are similarly instrumental in enhancing rural community capacity to develop palliative care programs. The research undergirding this paper focused upon intellectual or conceptual knowledge—specifically, Kelly’s (2007) model of rural community capacity development to provide palliative care—and practical knowledge—a toolkit—intended to transfer the conceptual knowledge to communities for their utilization. Indeed, toolkits are increasingly emerging in the literature as strategies for intellectual knowledge translation and utilization.

1.2 A Conceptual Model for a Rural Community End of Life Care Program

In 2007, a progressive four-stage capacity development model was conceptualized to help rural communities understand the process by which they could develop their own palliative care programs (Kelley, 2007). A five-year program of ethnographic case study research followed that generated knowledge to increase timely access to palliative care in rural communities. This research included validation of this capacity development model (Kelley, Williams, DeMiglio, & Mettam, 2011) and subsequent use of the model to guide local community capacity development (Kelley, Sletmoen, Williams, Nadin, & Puiras (2012). The current analysis emerged from data collected in the rural study site communities during the model application phase of the research.

As a capacity development model, it is theoretically committed to the following principles: the enhancement of existing resources and capacities; a strengths-based rather than a needs-based approach; and the initiation and undertaking of the process by local providers. The model acknowledges that this process is both gradual and ongoing and transpires over a period of years (Kelley, 2007). The model itself is composed of the following four phases: 1) antecedent conditions, for example, the labor resource of health care workers; 2) a catalyst, such as an event that may mobilize the will for change; 3) creating the team, such as identifying and recruiting appropriate community stakeholders; and 4) growing the program, through, for instance, meetings and coordinated communication (Table 1). Although Kelley’s work (2007) is straightforward and easy to understand, some communities may need practical resources to help them translate the phases of this conceptual model into actual capacity development.

In 2008, Canada’s Ontario North West Community Care Access Centre (CCAC) translated this conceptual model into a collection of material resources, which they referred to as a *Toolkit*, in order to help actualize it. The *Toolkit* is intended to equip communities as they proceed through the model’s four stages of rural community palliative care development. In 2008 the *Toolkit* was distributed to 13 communities throughout Northwestern Ontario and 9 of these communities made use of it in some way.

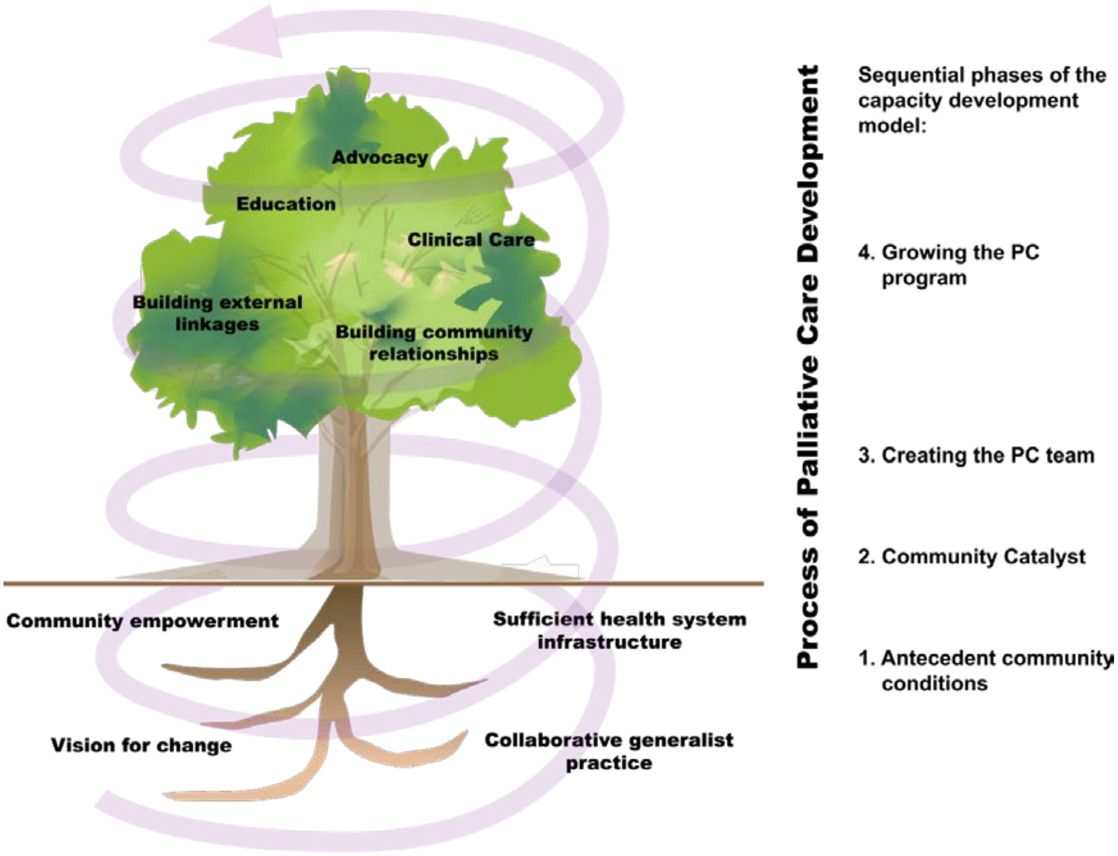

Figure 1. Process of Palliative Care Development

1.3 The Toolkit

In 2008, Canada's Ontario North West Community Care Access Centre (CCAC) in collaboration with a specific rural community's End-of-Life Care Committee undertook "An Innovations in Coordinated Care Project" that resulted in the "Building a Community End of Life Care Program: A Toolkit for Action" available at http://www.nwoendoflifecare.ca (Northwestern Ontario End of Life Care Network, 2008). The *Toolkit* is comprised of 29 tools listed as Appendices first to help a community conceptualize what a palliative/end of life care program might look like in their locale and then to guide them through the four phases of the capacity development process as outlined in the model. Tools to facilitate this conceptual exercise include a power point presentation of Kelley's (2007) model (Appendix 6) as well as a series of questions to generate brainstorming (Appendix 7). Other tools were developed to guide the interdisciplinary care planning process and to improve communication between the different care providers, across all settings (hospital, home, community). These tools include: a pamphlet with a brief description of the program for potential clients as well as a list of services and supports available in the community (Appendices 15 & 2); a palliative intake and assessment form to be used to gather information about an individual that could be shared with other team members upon admission to the program (Appendix 17); a special palliative discharge summary to be completed by the hospital (Appendix 18); a template to guide the process of gathering an interdisciplinary team together for a case conference (Appendix 19), and; a sample Path of Care and flow sheet which describes how a client moves through the system and transitions between settings and care providers (Appendices 13 & 14). The toolkit also includes a checklist for an expected home death (Appendix 22).

The *Toolkit* is viewed as a “living” document that has and will continue to evolve. For purposes of this research, it operated as an interdisciplinary resource that was flexible and accessible to anyone who played a role in providing rural palliative care. Although this resource was created by health care professionals in one particular community, other communities were invited to borrow or revise the tools to suit their own unique community. The intent was to provide a comprehensive resource that could be adapted to best benefit and reflect the uniqueness of other individual communities. If successful, this *Toolkit* would aid teams in the development of their own community-specific programs. Such aspirations for the *Toolkit* were tested when it was utilized by nine, diverse, rural communities within Northwestern Ontario (Table 2).

Table 2. *Rural Community Demographics of Toolkit Distribution Among Community Participants*

Community	**Population (2001)[1]**	**Population (2006)[1]**	**Median age (2006)[1]**	**Number of deaths (2005)[2]**
Atikokan	3,632	3,293	43.0	25
Dryden	8,198	8,195	41.8	99
Emo	1,331	1,305	39.9	9
Fort Frances	8,315	8,103	42.3	119
Manitouwadge	2,949	2,300	42.8	6
Marathon	4,416	3,863	39.8	22
Rainy River	981	909	47.8	21
Red Lake*	4,233	4,526	37.9	27
Ear Falls*	1,150	1,153	39.1	n/a
Terrace Bay**	1,950	1,625	45.6	18
Schreiber**	1,448	901	42.9	n/a
Ontario	**11,410,046**	**12,160,282**	**39.0**	85,808
Canada	**30,007,094**	**31,612,897**	**39.5**	n/a

Sources:
[1] Statistics Canada (2008).
[2] Habjan, Diamond, & Kelley (2008).
* Red Lake and Ear falls share health services therefore are listed together
**Terrace Bay and Schreiber share health services therefore are listed together

1.4 Knowledge Utilization Evaluation

To explore how communities used the toolkit and to evaluate its utility with respect to community capacity development specific to end-of-life programming, enters us into the foray of knowledge utilization evaluation. The evaluation of knowledge utilization, however, is fraught with serious methodological and conceptual gaps (Rich, 1997). What constitutes success? What outcome measures should be used? Particularly problematic has been the conceptualization and measurement of use. Recognizing these drawbacks, the concept must be operationalized in a way that provides a realistic basis for evaluation, accountability and oversight (Rich, 1997). Rich (1997) argues that it is important to distinguish use from acquiring information and from disseminating it. He asserts the importance, within an evaluation context, of distinguishing among: use, utility, influence and impact, particularly when thinking of utilization as a process as well as an outcome.

In sum, this study aimed to describe and evaluate the utility of a toolkit in developing rural community capacity to provide end-of-life care. Specifically, it demonstrates the nature of utilization of the toolkit, and evaluates its effectiveness by demonstrating the linkages between its utilization with the process of community capacity development related to palliative care programs. As such, it elucidates both intellectual and practical knowledge as key strategies in community capacity development.

2.0 Method

The interpretive paradigm was used to guide the design of this particular project within the larger ethnographic case study, and the methodological approach was qualitative evaluation research (Denzin & Lincoln, 1998). The Central Care Access Centre's (CCAC) Regional End- of-Life Care Coordinator distributed the *Toolkit* among 13 Northwestern Ontario communities as well as posted it on the End-of-Life Network's website. At the time of the study, nine communities confirmed that they had used it. This research collected in-depth data from two of these communities and additional data from the other communities that had also used the *Toolkit*. Data were collected between January and March of 2009.

The primary method of data collection for this project was semi-structured interviews (n=4) conducted over the telephone, supplemented by participant observation during team meetings (n=2) and documents such as reports and minutes of meetings that documented team activities in the nine communities, specifically with respect to the distribution and use of the *Toolkit* (n=6). The semi-structured interview guide was created to ascertain: the dissemination of the *Toolkit* i.e. to confirm its receipt and if and how it was distributed among team members; whether or not the toolkit was used (why or why not), and how it was used; feedback concerning the content of the toolkit; and any recommended revisions or additions. Interviews were conducted with the Regional End-of-Life Care Coordinator whose oversight and observation of use of the toolkit among the nine communities made her a key informant, as well as one representative from the palliative care teams in one community and two representatives from another community. Interviews were audiotaped and interpreted by qualitative content analysis; this data was then triangulated with the other data collected. Content analysis yielded codes and these codes, once elucidated, were discovered to coalesce nicely with Rich's theory of knowledge utilization. So, the data was collected and coded, and the codes were abstracted to Rich's theory. This study was undertaken with the approval of Lakehead University's Research Ethics Board.

3.0 Findings

In our evaluation of the *Toolkit* we have accounted for various types of use (Rich, 1997). According to the regional end of life coordinator the four tools most mentioned by the communities were: the Path of Care (Appendix 13), the program pamphlet (Appendix 16), the intake form and the Hospital Discharge form (Appendix 18).

1) Use

The regional end of life care coordinator distributed the *Toolkit* (electronically, in hard copy and posted on the regional website) to thirteen Northwestern Ontario communities. Most communities then distributed it among its team members, tabling meetings to work through it as a group. Thus, at the time of this study, communities had received and read it. For three community teams, the *Toolkit* had been viewed as "information only". Four other communities had not yet formed a palliative care team or committee and thus did not have the means to implement the toolkit. The end of life care coordinator observed "there is a big difference between having received the *Toolkit* and having done something with it".

2) Utility

All of the communities regarded the toolkit positively as possessing some potential to enhance the end of life care programs in their communities. Indeed, the *Toolkit* can also be seen as an example of what can be done. In one community the *Toolkit* provoked new ways of improving palliative care not thought of before. For example, the Toolkit presented the idea of interdisciplinary case conferencing for some members of the Family Health Team. Up until the introduction of the *Toolkit*, the team was primarily focused on the community aspects of palliative care (raising awareness of palliative care in the community, educating the public on the resources that were available and how to access them); once they read through the section on case conferencing they realized that they could also be working on some of the more clinical aspects of their program. Other communities concurred that the *Toolkit* facilitated a holistic conceptualization of end-of-life care such that "all the domain needs are being recognized in a timely manner and met". One community intuited that such tools as the Terms of reference—Clinical team (Appendix 11) and the hospital discharge form (Appendix 18) would be beneficial to their programs but at this point "we don't know what we're doing with the clinical team yet". One community was planning to take such conceptual tools to the Medical Advisory Team at the hospital to discuss their potential for implementation.

3) Influence

Three communities decided to use the Toolkit in its entirety as the prototype for their own community program. Other teams were considering what components of the *Toolkit* to use, how those components would need to be adapted, and how to translate the tools into practice. As a key informant stated, "We're going to take what we want and develop our own toolkit —then we'll present it as our own community manual". One team leader had gone through the kit and flagged several tools she felt could be modified to meet her community needs: Flow chart (Appendix 14), Organizational chart for the program (Appendix 9) and Terms of reference (Appendix 10). The team was planning to meet monthly to engage in this process.

Thus, the *Toolkit* has influenced teams to take a step back and ask themselves about the nature of and vision for palliative care in their community and how this vision may actually work in the various communities. The *Path of Care* document was particularly helpful in this regard. One team envisioned the capacity of many individuals to refer someone to the palliative program—this would require a modification to the tool that identifies the physician as the person who refers. The *Toolkit* stimulated discussion that helped them to make decisions (what tools to include) or undertake actions (modification of tools) to benefit their unique community program.

4) Impact

The toolkit had impact. In one case, the team decided to reject the toolkit. This community already had an established palliative care team and program, so when the *Toolkit* was first introduced to them, they did not feel that they needed to use it in as direct a way as "younger" teams. In this case, the team read through the *Toolkit* to get an idea of what was in it, but decided to continue heading in its own direction. Another community used Plan B/Path of Care in the case of someone who wanted to die at home but was ineligible for Community Care Access Centre care. Another community was successful in introducing the discharge form into the hospital. Two communities had trialed the intake form and were now undertaking to amend it based on that experience.

Table 3. *Knowledge utilization as a process – defining use, utility, influence and impact*

Concept	**Meaning**
1. Use	- Information has been received and read - Does not necessarily imply that information has been understood - Does not imply that an action has been taken
2. Utility	- Represents some user's judgment that information could be relevant for some purpose which has not been identified as yet - Does not imply that an action has been taken
3. Influence	- Information has contributed to a decision, and action, or a way of thinking about a problem - The user believes that by using information, he/she was aided in a decision or action
4. Impact	- Information has been received, understood, and it has led to some concrete action, even if that action is to reject the information

3.1 Utilization in Context

Certainly utilization was influenced by the unique context of each community; this context was comprised of the following various elements.

3.2 Community phase of capacity development.

Community use of the toolkit was dependent upon their phase of capacity development. At the same time, use of the toolkit helped to actualize and/or enrich current or previous phases and/or propelled community teams toward the next phase in Kelley's model.

1. *Antecedent conditions*. Communities that were too small to have formed a palliative care team, and/or that had insufficient health professionals to provide end of life care could not use the toolkit beyond key individuals having received and read it. These communities were not included in the study.
2. *Catalyst*. Kelley identifies the essentiality of a catalyst to commence the trajectory of community capacity enhancement. The toolkit can itself act as a catalyst for the enhancement of capacity; at the same time, community catalysts may prompt use of tools. Tools may provide a concrete activity to facilitate agency and activity. The pamphlet is useful in that it provided teams

with a concrete activity that they can get to work on right away. As a result, the team has a sense of momentum going forward and is eager to move on to the next task. One community experienced a dying person who was ineligible for CCAC support. This disrupted the usual process through which to provide end of life care. As such, it constituted a community catalyst for re-visioning how to provide care for this individual. The Plan B tool was used in this situation.

3. *Creating the team*. The pamphlet was regarded as useful because it forces teams to go through the process of finding out what services are already available in their community and how these services can be accessed. In fact, in one community, the development of the pamphlet led to the identification of a few more people who were involved in palliative care who had not yet been invited to be team members.

Ensuring that a representative from every relevant and available profession/organization is on the team brings the challenge of getting organizations to make commitments to both the process and the program. Obviously those who sit on the team first need their organizations or employers to support their involvement. Once a team is formed, they depend on further support from their respective organizations, such as the provision of meeting space, administrative services, or financial resources, such as the printing of a pamphlet. Further, organizational commitment is needed when it comes time to put the program into practice. For example, organizations must be willing to adapt their current forms and protocols to incorporate the changes that the team has recommended. Additionally, once organizations approve the use of a new form or protocol, they must commit to educating their staff on its use. Getting this type of organization-level commitment is a necessary, albeit often complicated, step.

4) Growing the program. Communities in which the toolkit had influence and impact were growing their programs. The toolkit facilitated this growth by propelling the community towards the next phase of the model and/or towards more growth. Working on the ‘Path of Care’ helped teams determine what the palliative care process currently looked like in their community, while identifying the linkages that already existed between certain organizations. Once the ‘Path of Care’ was complete, the team could use it to identify ways to improve how a palliative client flows through the system. This, in turn, forces them to think about the actions that they need to take to make their ideal ‘Path of Care’ a reality, and the team ends up with a better idea of their next steps. For example, one community that was trying the discharge tool, realized through its use, that a special discharge form would be helpful in the context of patients who were not actually admitted prior to discharge but who were temporarily at the hospital i.e. in emergency. Another community reported that the toolkit facilitated their re-conceptualization of the program to include clinical partners such as the hospital. This re-conceptualization led to the decision to foster linkages between the community palliative care team and the hospital.

Table 4. *Examples of Types of Knowledge Utilization in Rural Community Capacity Development*

Type of Knowledge Utilization	Rural community example of toolkit use	Phase of Palliative Care Program Capacity Developed
Use	This rural community did not have a palliative care committee or team established but interested health care providers in the community took copies of it to review.	Pre-Development
Utility	This rural community had a newly formed palliative care team. Health care providers in the Family Health Team and the home care program (CCAC) reviewed the Path of Care tool with interest.	Creating the Team
Influence	This rural community's new palliative care team discussed the tool kit and decided to use it as a prototype for developing their local program tools.	Growing the program
Impact	A community used Plan B when a case arose in which the person dying did not meet the eligibility criteria for CCAC care.	Growing the program

Community sense of empowerment. A major challenge that has been experienced by teams is defining their role in, not only the program's development, but in its implementation as well. As discussed, there may be questions as to who is ultimately responsible for what and how much control they actually have in putting a palliative care program into place.

Community experience/expertise. Sometimes the processes outlined in the *Toolkit* can seem overwhelming and it may be difficult for teams to decide where to start. For example, a team may try to jump right into program development without first conceptualizing their overall vision for their community or the short- and long-term objectives they are working towards. This can lead to teams feeling slightly adrift, asking themselves "well, now what?" after they've gone ahead and revised the *Toolkit* to reflect their community. Finally, using the *Toolkit* facilitated conceptualization of additional tools to be added. Informants imagined such future tools as those to enhance teambuilding, improve communication among providers, and enable information sharing while protecting client confidentiality.

Community size and proximity to others. Community characteristics, such as size and spatial proximity, played a role in utilization. Smaller communities, for example, believed themselves to experience less bureaucracy than larger communities and the palliative care team had more autonomy to utilize the *Toolkit*. Small communities could completely integrate the *Toolkit*, whereas larger ones had to incorporate it within the complex matrix of existing organizations, policies, programs and services. Spatial proximity between communities also influenced the extent to which the *Toolkit* was used. Communities close to one another easily shared their experience of the *Toolkit*, facilitating its use. More isolated communities did not have this proximity, possibly hindering its use.

Relevance of tools to community. Given that information is differentially utilized depending upon the information needs of the potential user, communities utilized certain tools within the *Toolkit* that met their specific needs at that time, such as in response to an impending death within the community. Use of the *Toolkit* was also contingent upon the need for palliative care in the community; for example, if no palliative care patients were admitted to hospital, there would have been no need to use the admission or discharge tools. Some of the smaller communities had fewer than 10 deaths a year, not all of them expected.

Adaptability. Key informants expressed an appreciation for the ability to adapt the *Toolkit* so that it reflects the uniqueness of their community. One key informant liked how the *Toolkit* allows for a community's "flavor" to be added to it. Another emphasized, "…what is here is really good and people just need to take what fits for their community and modify it for their community." For example, a team adapted the flow sheet to include hospitals and community members, rather than solely physicians, as among those who may refer prospective patients to end-of-life care.

Congruency between tools and community ideology. The *Toolkit* is produced from a whole community perspective and includes tools such as the Expected Death in the Home Checklist designed to help health care providers organize their support for people who wish to die at home. One key informant expressed that she loved the fact that the *Toolkit* takes a community-based approach, as a lot of people assume that palliative care only takes place in clinical settings. She feels that the *Toolkit* presents a guide for developing this type of inclusive, comprehensive, and collaborative care that is the way of the future. Further, teams identified that it is helpful not only knowing what people in other parts of Northwestern Ontario are doing, but also seeing examples of some of the other documents that they are developing for their own programs.

The *Toolkit* confirmed communities' ideological beliefs pertaining to local interdisciplinary delivery of end-of-life care. According to the regional end-of-life care coordinator, this was a reverberating theme among all communities: "They all believe palliative care is happening, they need to co-ordinate it and they need to work together". Another key informant stated, "I love the idea of the community end-of-life care team—I think it's a really good way for communities to function at a very difficult time in most lives and when we get on board with that it's a very good thing".

Sufficient infra-structure. The unique contextual community factors, such as the availability of physicians, stakeholder participation, and community characteristics, may potentiate utilization of the *Toolkit* or hinder it. Informants identified and described such factors. A challenge that teams have faced while using the *Toolkit* is getting their community's physicians involved in the process. According to several key informants, having a doctor involved in program development is important because the medical profession plays such a large role in the delivery of palliative care. Because a doctor was involved with creating the *Toolkit,* many of the program components outlined in the *Toolkit* are physician-focused. However, the lack of doctors in another community has meant that there is currently no physician sitting on the team. This has led the latter team to struggle with determining where and to what extent the doctors should fit into their program. Ultimately, while one community's program will heavily involve physicians, the other community will have to adapt its program to reflect the fact that they simply do not have the same human resources available to them.

Building on professional availability, users of the *Toolkit* mentioned that it is also important to have team representation from all relevant stakeholders, both professions and organizations (i.e. long-term care homes, churches, etc.) involved in delivering palliative care; this simplifies the logistics of implementing the program once it has been developed. Some teams have grappled with using the *Toolkit* to plan their program because they have been unable to get certain key individuals or organizations involved and are therefore unsure whether certain components of the *Toolkit* are applicable to their community or can feasibly be put into practice.

4.0 Discussion

Knowledge utilization is still a highly underdeveloped field (Landry, Amara & Lamari, 2001; Lester, 1993; Oh & Rich, 1996; Rich, 1997). At present, there is no single conceptual model to explain knowledge utilization/evaluation that has gained unanimous approval among knowledge utilization experts (Belkhodja, Amara, Landry, & Ouimet, 2007). Still, research has yielded insight into knowledge utilization determinants and evaluative strategies. It is within this context that our findings are discussed.

The toolkit was used/utilized/influenced/had impact upon several communities. Our findings were consistent with the explanatory determinants of knowledge utilization. Research that converges with the interests of both researchers and users are more likely to be utilized. “Research utilization increases as researchers consider and integrate the specific needs of users in their research instead of solely focusing on advances in research” (Belkhodja et al., p. 381). Kelley’s conceptual model was built from her experience with various actual communities and her model acknowledges the imperative of local knowledge utilization within it. At the same time, the toolkit itself was created by a user, but reflects the intellectual knowledge of community capacity development within it—indeed, Kelley’s model is among the tools in the kit. Furthermore, toolkit utilization exemplifies the ‘interactional model’ of knowledge utilization rather than the top down ‘science-push model’— the utilization of the toolkit demonstrates the “interaction and relationships existing between researchers and users at different stages of knowledge production, dissemination, and utilization” (Belkhodja et al., p. 383). Indeed, formal and informal linkages have recently been recognized as utilization determinants (Landry et al., 2001). The literature refers to such linkage examples as: participation on committees— community palliative care teams formally linked people as members, with other community stakeholders, as well as other communities; conveying of research reports to organizations—certainly the CCAC end of life care coordinator disseminated the toolkit to the communities and oversaw their capacity development; informal personal contacts—the end of life care coordinator further represented a linkage between the university research hub and the communities via formal and informal personal contacts. Indeed, the toolkit itself was a concrete linkage between the conceptual knowledge of community capacity development and the communities.

Research relevance to organizations constitutes another utilization determinant. Our findings bear out that community palliative care teams selected from the tools from the kit that were deemed relevant to them— this selected use of research is a characteristic of the interactional model of knowledge utilization (Belkhodja et al., 2007). Tools were instrumental when they fit the operational needs of the team.

Moreover, the toolkit was congruent with communities' ideology of community palliative care and their aspiration to develop their capacity to deliver it. Finally, "research results that are in a concise form and are adapted to the user" are more likely to be utilized (Landry et al., 2000). The toolkit exemplifies both of these characteristics that were frequently and favorably noted by informants.

Consistent with our findings pertaining to users-in-context, organizational context is also a critical component in knowledge utilization and evalution (Belkhodja et al., 2007). Our findings emphasize multiple contextual variables that converge with the literature pertaining to organizational capacity to utilize knowledge. Critical to organizational theory of utilization is the concept of absorptive capacity that refers to an organization's capacity to assimilate and reproduce new knowledge acquired from external sources (Cohen & Levinthal, 1990). Absorptive capacity is analogous to the phases of community capacity development: a dynamic process with distinct stages that move from knowledge acquisition and assimilation to transformation and exploitation of new knowledge. Similarly, knowledge utilization (use, utilization, influence or impact) depends upon the unique phase of the community i.e. communities without palliative care teams could do little more than acquire the toolkit, communities with the antecedent conditions to provide palliative care were catalyzed by a death in the community and used the toolkit to inform or respond to that event, communities who were growing their own program could better conceptualize, make decisions and undertaken action —exploit new knowledge—by virtue of the toolkit. In addition, variables such as size of the community (few deaths), and the research experience, education and research role of individuals within the organization were further determinants. The community who produced the toolkit evidenced the impact of a physician member who had the research expertise and experience upon knowledge utilization—and creation. The final organizational contextual variable that determines knowledge utilization is organizational culture—knowledge and organizational culture are two intimately related concepts (Brown & Duguid, 1991). Organizational culture is defined as a way of doing things that are particular to a given organization:

A pattern of basic assumptions—invented, discovered, or developed by a given group as it learns to cope with its problem of external adaptation and internal integration—that has worked well enough to be considered valid, and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (Schein, 1985).

The toolkit's adaptability to the distinct organizational cultures enhanced its utilization. Indeed, community capacity development itself is grounded in the values, attitudes, beliefs, traditions and ways of doing things that are particular to a given community or organization. Fraser and Leplofsky (2004) emphasize the essentiality of researchers "pursuing techniques that identify and utilize forms of knowledge that are hybrids between 'expert' and 'local' (p. 11).

The toolkit represents both local and expert knowledge and as such is congruent with the process of community (organizational) capacity development itself.

In sum, the toolkit was utilized owing to epistemological and organizational factors. But, was its utilization successful in enhancing rural community capacity to deliver end of life care? As far as knowledge utilization evaluation is concerned, Rich states,

> The bias in the knowledge utilization literature has definitely been in the direction of measuring that which is easy to measure, rather than focusing on the nature of utilization and trying to construct some measures which are sensitive to the phenomenon in question (p. 12).

Indeed, we similarly note that two different approaches have been taken to measure knowledge utilization: a product perspective that associates knowledge utilization with instrumental utilization and a process perspective that evaluates knowledge utilization within the context of a decision making process.

In this paper, we have attempted to counter the bias towards the product perspective. We have considered toolkits within the nature of utilization: Toolkits constitute practical knowing that may be used to actualize conceptual or intellectual knowledge. As such, and as evidenced by our data, utilization extends beyond simple implementation of a tool, to its utility, influence, impact, and use-in-context. Furthermore, we have suggested 'measures' sensitive to the phenomenon in question, namely how the toolkit was useful to operationalize the stages of Kelley's model of rural community capacity building to develop palliative care. Since Kelley's model has itself been validated, any strategy to actualize it may be considered evidence of enhancing community capacity. As such, the evaluation of this toolkit is situated within utilization as process— e.g. "oriented towards instrumental change, towards planning, designing services for consumers or other users, or toward generally facilitating effective problem solving" (Rich, p. 13)—as well as utilization as outcome— e.g. "designing a service delivery system or strategy" (Rich, p. 13). Our data evidence that the toolkit was useful/utilized/influenced/impacted the various stages of Kelley's model in the unique contexts of the particular communities within its distribution, and as such, contributed to the enhancement of community capacity to deliver end of life care. This mode of evaluation is not a simplistic input/output model but more in line with how societal processes actually work. Tools can be amended, communities take them up in ways that make sense to them—Kelley's model of community capacity is naturalistic and progressive but not linear, the tools are similarly utilized and in so doing, enhance capacity.

5.0 Limitations

This study may be accused of rationalistic bias i.e. the assumption that using the practical knowledge of the *Toolkit* is good in an unconditional sense. However, there are times when the decision *not* to use knowledge may be good such as when it is incongruent with the current state of community capacity. Four communities in the study chose not to use the tool kit or did not access it. Local knowledge should prevail over imported knowledge in such cases. In addition, this study was conducted at a specific point in time. Given that knowledge utilization occurs over time it is a limitation to evaluate it at one discrete moment. This evaluation is therefore limited to the moment in time the communities were utilizing or not utilizing the toolkit. It is a snapshot, recognizing that a longitudinal view is more congruent with the nature of knowledge utilization and the process of community capacity development. Ongoing assessment will overcome this limitation and inform the progress communities may be making.

6.0 Conclusions

Toolkits are a popular conduit for the translation of intellectual knowledge into practical knowledge amenable to utilization. This utilization and the evaluation of its effectiveness is situated within the problematic area of knowledge utilization evaluation. Despite a lack of consensus regarding any single theoretical model, some key concepts regarding knowledge utilization evaluation have emerged. Epistemological, ontological and organizational factors are critical to knowledge utilization, and the evaluation of knowledge utilization must consider measures that are sensitive to the phenomenon in question rather than simple linear outcomes. In this paper we have demonstrated that the toolkit to enhance rural community capacity to deliver palliative care offers an effective resource by which teams may enhance their capacity to deliver integrated, holistic, interdisciplinary community-based palliative care.

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8.0 Declaration of Interest

The authors declare that there are no competing interests.

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