The Importance of Place and Time in Translating Knowledge About Canada's Compassionate Care Benefit to Informal Caregivers

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Canada's Compassionate Care Benefit (CCB), an employment insurance program designed to allow Canadian workers time off to care for a dying relative or friend, has had low uptake since its inception. Due to their role in working with family caregivers, social workers are one group of primary health care professionals who have been identified as benefiting from a knowledge translation campaign. Knowledge tools about the CCB have been developed through social worker input in a prior study. This article presents the findings of a qualitative exploratory intervention. Social workers (n = 8) utilized the tools for 6 months and discussed their experiences with them. Data analysis revealed references to time and space constraints in using the tools, and demonstrated the impact of time geography on knowledge translation about the CCB. The results suggest that knowledge translation about the CCB could be targeted toward caregivers earlier on in the disease progression before the terminal diagnosis, and knowledge tools must be disseminated to more locations. These results may be valuable to policymakers and palliative care providers, as well as theorists interested in ongoing applications of time geography in knowledge translation and the consumption/production of care.

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INTRODUCTION

Knowledge translation is inherently geographical; most knowledge translation (KT) theories include tailoring information to the local context (see, for example, Graham et al., 2006; Rycroft-Malone, 2004). Often, the process is characterized by getting the right information to the right place at the right time (Kho, Etsey, DeForge, Mak, & Bell, 2009). However, little research has been done to understand the complexity of time and place in the process of KT. This study provides some preliminary findings that portray some of the influences of time and place on KT in hospice palliative care, via Canada's Compassionate Care Benefit (CCB). Canada's CCB, an Employment Insurance program designed to allow Canadian workers time off to care for a dying relative or friend, has had low uptake since its inception in 2004. This suggests the need for better knowledge dissemination about the CCB to Canadians. Due to their role in working with family caregivers, social workers are one group of primary health care professionals who have been identified as benefiting from a KT campaign. KT tools about the CCB have been developed through social worker input in a prior study. In this article, a qualitative exploratory intervention of these KT tools with social workers is discussed using Hägerstrand's (1975) time geography, a well-known geographical theory.

HEALTH GEOGRAPHY

The application of geography and concepts of place in health care research is not new, with writing on the topic dating back to Hippocrates' *Air, Waters and Places* in 400 BC (Barrett, 2000). Modern research on health geography changed in 1993 (Crooks & Andrews, 2009), with the introduction of Kearns' (1993) definition of place. According to Kearns (1993), places are socially significant phenomena that are shaped by individuals' perceptions and memories. Accordingly, research began to examine health care in light of this richer conceptualization of place (Crooks & Andrews, 2009).

Out of this growing tradition, research has expanded to include a number of new subspecialties such as defining and understanding sense-of-place (Williams, Kitchen, DiMiglio, Newbold, Eyles, & Streiner, 2010), identifying health-enhancing place-based health care (Crooks & Andrews, 2009). Awareness of the importance of place has also been infiltrating the development and language of policies. Consider Ontario's aptly named "Aging in Home Strategy" (Ontario's Local Health Integration Networks, 2011), and other aging in place research developed to support the changing demographics and increasing community-based care locations (Cutchin, 2003).

The focus on gerontological research and associated supportive policies reflects the number of people entering old age, particularly in developed countries. In Canada, the number of seniors is expected to rise from 1.8 million in 2009, or 13.7% of the country's population, to 4.6 million in 2036, equaling 23.4% of the population (Statistics Canada, 2010). These numbers mirror the trends that are projected for deaths (Ontario Ministry of Finance, 2010).

Research has identified historical variations on preferred locations of death. Since hospital deaths in Canada peaked in 1994, there has been an increasing shift of palliative cases into the community (Wilson et al., 2009; Wilson, Norcott, Truman, Smith, & Anderson, 2001). The growing numbers of Canadians requiring hospice palliative care (HPC), particularly in the community and private home, has placed much of the onus of care onto informal caregivers. Informal caregivers are defined by Health Canada (2002) as friends and family members who provide support, whether physical or emotional, to someone who is chronically ill, frail, or who has a mental or physical disability.

The production and consumption of informal health care is a recent focus for health geographers (Gavin & Evans, 2008). As caregivers (care producers) and clients (care consumers) of the health care system, informal caregivers reside at the interface of care provision and consumption. Informal caregiving has been associated with negative health outcomes (Reid, Stajduhar, & Chappell, 2010), and informal caregivers often describe the need to balance multiple roles and responsibilities as one of the many complications of providing care (MacBride-King, 1999; Reid, Stajduhar, & Chappell, 2010). As a consequence, a number of developed countries have put in place caregiver programs and policies to support and sustain caregivers. One such program is Canada's Compassionate Care Benefit (CCB).

CANADA'S COMPASSIONATE CARE BENEFIT (CCB)

The CCB, legislated in 2004, allows those caring for a dying friend or family member to take a secured leave from work while receiving employment insurance payments. The CCB is a contributory Employment Insurance (EI) Benefit. As such, applicants must have accumulated 600 insurable hours through automatic payroll deductions to the EI contributory scheme while demonstrating their wage has decreased by 40% in the preceding 52-week period. Applicants must also document that the care recipient is gravely ill through provision of a physician-signed medical certificate. If eligible, applicants can receive an 8-week leave from work to provide care and support. Of the 8 weeks, 2 are unpaid; during the remaining 6 weeks the applicant can receive 55% of their income up to a maximum of Can\$468 per week (Service Canada, 2010).

Despite demographic trends that have indicated otherwise, uptake of the CCB has been low (Osborne & Margo, 2005). Research has identified a

number of recommended strategies for increasing uptake, including the implementation of a CCB awareness campaign (Williams, Crooks, Giesbrecht, & Dykeman, 2010). Social workers, in particular, have been identified as key health professions who have the capacity to act as knowledge brokers that can facilitate increased awareness about the CCB (Giesbrecht, Crooks, Schuurman, & Williams, 2010). After an extensive review of the business/marketing literature specific to disseminating awareness of government programs/benefits (such as the CCB), together with a review of the KT literature specific to what modalities work for health practitioner education, printed education materials (or KT tools) were developed through social worker input. A messaging survey elicited responses from social workers about preferred messages about the CCB, forming the content of the KT tools. A focus group and in-depth interviews with social worker participants provided an opportunity for refining tool formats. A poster and pamphlet about the CCB were developed as the preferred KT tools for social workers, with messages focused on the CCB purpose, as well as application and remuneration details. The poster and pamphlet can be viewed in Figures 1–3.

FIGURE 1 CCB Pamphlet Side A. The first side of the pamphlet shown depicts the cover of the pamphlet, the back side of the pamphlet, showcasing the “contact your local social worker” box and the checklist detailing application information. The inclusion of these aspects directly reflects social workers’ preferences. (Color figure available online.)

FIGURE 2 CCB Pamphlet Side B. The second side of the pamphlet shown depicts the inside content of the pamphlet. Specific messages about the CCB were selected for inclusion based on the results of the CCB messaging survey. These messages and the layout were then fine-tuned through the key informant interviews. (Color figure available online.)

The KT tools were shaped largely by the context in which social workers provided support to family members, particularly in HPC. References to the times and places through which the KT tools were likely to be used and how conversations about the CCB typically happened were indicative of notions of time and place, as discussed in the field of in health geography. This study was an exploratory evaluation of the KT tools based on Hägerstrand's (1975) time geography.

HÄGERSTRAND'S TIME GEOGRAPHY

According to Hägerstrand (1975), people, such as social workers, draw upon time and other resources in order to realize projects, such as the translation of knowledge about the CCB to informal caregivers. The interaction of time and space in the realization of such a project is subject to three types of constraints: capability constraints, coupling constraints, and authority

Employment Insurance (EI) Compassionate Care Benefits

Are you providing care to someone who is gravely ill?

You might be eligible for Compassionate Care Benefits

- ✓ Compassionate Care Benefits allow you to take a temporary secured leave from work to support a friend or family member at risk of death
- ✓ A total of eight weeks of leave can be taken, six of which are paid
- ✓ The amount covered is 55% of your average insured earnings, to a maximum amount of \$447/week

Who can receive these Benefits?

- ✓ In order to be eligible, you must be eligible for EI (Employment Insurance)
- ✓ The person you are providing support for must be at risk of death within the following 26 weeks

How do you apply?

- ✓ In person or online through Service Canada
- ✓ You will need medical documentation (forms are available through Service Canada), and your record of employment (from your employer)

To find your nearest Service Canada centre for in-person applications, to access additional information, or to apply online please visit: www.servicecanada.gc.ca Or call: 1-800-206-7218.

Logos for CDHR, McMaster University, and the Canadian Hospice Palliative Care Association are shown at the bottom.

To contact the Canadian Hospice Palliative Care Association please visit: www.chpca.net, Email: info@chpca.net Or call: 613-241-3663 or 1-800-668-2785

FIGURE 3 CCB Poster. The poster was selected to act as an additional tool type, meant to supplement the pamphlet and target any clients who may not see a social worker. The poster messages were selected, similar to the pamphlet messages, through the messaging survey; these messages were fine-tuned through key informant interviews. (Color figure available online.)

constraints. Capability constraints are the locations and livelihood of the individuals employed in the project. These locations and livelihoods, such as example “social worker” and “hospital” are called “stations.” Coupling constraints define where, when, and for how long an individual needs to collaborate with other individuals, KT tools and materials in order to realize their project. These collaborations are called “bundles.” Finally, authority constraints signify the imposition of conditions of access, called “domains.” The whole collective of possible paths through which individuals can move according to stations and bundles, is represented as a prism. Figure 4 depicts these theoretical constraints through space and time as Hägerstrand’s (1975) web model.

Hägerstrand’s (1975) time geography model has been widely used since its development. Despite this, researchers argue that its application in health

FIGURE 4 Web model of Hägerstrand's (1975) Time Geography. The movement of individuals through space and time is depicted along the X, Y, and T of the web model, respectively. The shaded domain is representative of authority constraints, or conditions of access. Physical locations, or stations, are depicted as cylinders, representing capability constraints. Lifelines are simply the passages through space and time. Bundles are the collaborations of individuals or resources through space and time also known as coupling constraints, and are shown as smaller cylinders within the stations. Finally, prisms are the total areas of space attainable by an individual.

care is far from being realized (Rainham, McDowell, Krewski, & Sawada, 2010). Recent applications include the use of the model to examine the child care landscape and labor negotiation concerns for women (McKie, Gregory, & Bowlby, 2002), as well as the examination of health and social services utilization for people living with HIV/AIDS (Takahashi, Wiebe, & Rodriguez, 2001). In both cases, access to supports based on movement throughout space was a key finding. In this study, the application of Hägerstrand's constraints will similarly allow us to map how social workers utilize the KT tools (as bundles), through space and time in order to translate knowledge about the CCB.

METHODS

Prior to the start of the study, ethics approval for conducting research with human subjects was obtained through McMaster University's Research Ethics Board (February 2010). The exploratory intervention reported on herein was initiated following the first stage of the research in which the KT tools were developed. The second stage, presented herein, provided the opportunity to assess how they may be best used and disseminated in the future. Social

workers were asked to utilize the KT tools for 6 months, after which they discussed their experiences in participant interviews. Data collection for this phase of the intervention occurred from October–November 2010. Participants ($n = 8$) were recruited through snowball sampling in the Greater Toronto Area where existing research participants from the first phase of tool development shared recruiting information among colleagues. Participants represented a number of care locations—including hospital palliative care units, outpatient palliative care clinics, and community home care programs. The participant interviews were semi-structured with interview questions addressing tool use and were based on identified time and space elements of Hägerstrand's (1975) time geography theory. Prior to the start of the interviews, participants provided written consent after being informed of the research process through a letter of information, as well as verbal explanation by the interview facilitator. The interviews were conducted at the participants' workplaces; lasted approximately two hours; and digitally recorded and were later transcribed verbatim. The transcripts were coded thematically through an adaptation of both inductive and deductive coding styles, whereby several themes were generated according to concepts of time and space. These time and space concepts included: added on time-elements such as the location of the KT tools, and context elements, including elements which determined where the conversations with the social workers took place, as well as the length of the conversations (Burnard, 1991). Additional themes were added through immersion in the data (Burnard, 1991; Hsieh & Shannon, 2005; Pope, Ziebland, & Mays, 2000). Coding followed an eight-stage process adapted from Burnard's (1991) guidelines. These guidelines outline a staged, developmental process for the creation of a coding scheme before being used to code the data. In order to enhance the rigor of the analytic process, cross-checking was implemented by team members (Pope et al., 2000; Barbour, 2001).

FINDINGS

Through analysis of the qualitative data, it became clear that the translation of knowledge about the CCB and the use of the KT tools were largely shaped by time and space, much like the constraints of time and space discussed by Hägerstrand (1975). Factors specific to time and space constraints, in the context of using the KT tools, were linked to: the social worker, the caregiver, and the CCB itself.

Social Worker Constraints

Social workers discussed a number of constraints in both their use of the KT tools and their ability to introduce the CCB to caregivers. The placement of

the KT tools within their practice location necessitated conscious decision making based on a number of features, including: where discussion took place, work policies, and the unique architecture that characterized their locations. One social worker described being constrained by the fact that their unit was newly renovated:

... because we're in a new unit we don't even have the pamphlet boards up like we used to in the old unit ... for now I just have them here in my office and I talk about them and hand them out.

Most social workers did choose locations where caregivers were likely to find the KT tools while waiting for appointments. Locations chosen for the KT tools varied and included private rooms for family members, doctors' examination offices; appointment rooms; hallways; and waiting rooms. Some social worker participants reported choosing certain locations due to movement of people through those spaces, while others chose spaces where people were likely to be sitting and waiting. According to one social worker,

I chose these locations because I was looking for the place that the most amount of patients would see them. You see our layout there. The waiting room. There's not always a lot of opportunities to place things there. So I sort of looked for place that a lot of people would walk by.

I've chosen all of the doctors' examination rooms because family members sit there and wait for the doctor to arrive, so I have it across from where they're sitting so it's at their eye level.

Ultimately, all social workers attempted to place the KT tools in locations where family caregivers were likely to be, in an effort to increase tool use, even when not facilitated directly by a social worker.

When directly facilitating conversations about the CCB and sharing the tools with caregivers, social workers often referred to temporal elements, including establishing and building a relationship with the caregiver; identifying when to introduce the CCB into the conversation; and deciding how long to discuss the program. Typically, the social worker established initial contact with the caregiver a number of ways. Much like tool location, establishment of a therapeutic relationship was heavily influenced by location. For example, a community social worker described the influence of funding structures in relation to referral patterns:

... at times, like the end of the year ... referrals tend to ebb. The reason I think it's relevant is because I think that sometimes the referrals that we get are related to fiscal situation and we haven't had any recent referrals.

Typically, referrals were made by other professionals within an institutional setting, whether hospital or clinic. In the community, referrals came

from Community Care Access Centers or via caregivers directly. Often, the CCB was introduced and the KT tools used at the time of the first meeting with the social worker. Other times, this happened at a later meeting, depending on the unique needs of the caregivers and patient. Regardless of the care location, all social workers reported variation in the time the CCB was likely introduced, as well as the length of time the program was discussed. One example is,

... the assessment of the family system and how family members are coping with the health challenge—a feature is how people are coping financially, and that combined with stress and how stressed people are. So when I'm doing an assessment, which isn't a formal sit down and fill out a piece of paper assessment, it's a conversation, could be 2-minutes long, could be 2-hours long, or could be a bunch of conversations

The amount of time spent discussing the CCB and using the KT tools was often related to the type of relationship established between the social worker and the client, as well as the needs of the care recipient as identified by the social worker. Social workers determined what information to share based on their own interpretation of where the caregiver, family, and patients were in the acceptance of the terminal diagnosis, as determined via the assessment period.

The identification of caregiver needs led some social workers to take a more active role in supporting the caregiver in cases where they felt the caregiver needed more direction in applying for the CCB. For example, social workers offered to manage the medical documentation component of the CCB application in between visits with the caregiver in order to simplify the application process. This included acquiring the medical form via one of a number of locations, including online, either at their workplace or private residence, or visiting a local Service Canada office in person. Social workers also described physically seeking out physicians in different locations, both within and outside of their workplace in order to have the medical form filled out.

Finally, social workers described the process of deciding whether or not to share the KT tools with other professionals in their workplace. The purpose behind this was to increase dissemination to caregivers, whom social workers may not access. For social workers working in institutions, the intensive care unit was chosen as an appropriate venue for additional dissemination given the care of critically ill patients. Social workers discussed an interest in broadening the dissemination of the CCB KT tools to target more patients who were not yet defined as terminal, but who had life-threatening diseases. Social workers also described concerns that caregivers and clinicians would overlook resources when resources did not currently apply to the patient concerned, regardless of their potential usefulness in the future.

For this reason, many social workers hesitated to disseminate the KT tools beyond their own immediate workplace.

In order to translate knowledge about the CCB, the social workers negotiated several time and space elements including the decision about where to place the KT tools, how to introduce the program into conversations with caregivers, and how best to facilitate the application process.

Caregiver Constraints

Caregivers, like social workers, needed to negotiate elements of space and time in order to access information about the CCB, utilize the KT tools, make a decision about applying, and complete the application. After being introduced to the CCB and KT tools, the caregiver's interest in the program, according to the social worker, was often influenced by the prognosis of the care recipient and the caregiver's acceptance of the terminal diagnosis. These factors often shaped the length of time the CCB was discussed in conversation, as well as the caregiver's interest or readiness to apply for the program. As one social worker described,

I'll offer it early-on, reminding them that it is only an 8-week program and it has to be shared amongst all of their family and friends. And that is a barrier to the system. People don't want to apply too early. So they then hold off and don't apply. And then it's too late sometimes when they do apply People are afraid to use it because they don't want to use it too soon.

Social workers discussed the caregiver's acceptance of the terminal situation as a key barrier in translating knowledge about the CCB. As many caregivers did not fully understand the prognosis. Social workers described a number of different scenarios through which caregivers either received or sought out information about the CCB and decided to apply. One scenario was when the caregiver approached the social worker with information about the program and an interest in applying. This was facilitated by the KT tools caregivers had picked up at some location themselves. Caregivers also received information about the program through the social worker and decided to apply days, weeks, or months later. When discussing these scenarios, one social worker highlighted the importance of the pamphlet:

I suspect that they read it and that they then make the decision that they do want to pursue getting it because they'll often come back with the medical form that I've already given them to have signed.

According to this and other social workers, the pamphlet was used by caregivers who wished to have time to reflect on the program information over time, as well as share it with other family members in different locations

before making a decision to apply. Caregivers also had to assess workplace dynamics and their movement throughout workplace spaces when considering applying for the CCB. Social workers reported that, for some caregivers, the decision to apply to program and the application process itself was influenced by their workplace. For example, one social worker described a situation where the application process took longer because of the difficulty the caregiver had in accessing their record of employment and the time taken in educating their employer about the CCB. The employers' lack of knowledge and support of the program led them to withhold the record of employment for some time until several phone calls had been made by the social worker. In contrasting situations, caregivers applied for the CCB early in the dying trajectory due to supportive workplace environments where the Benefit was promoted and, on occasion, enhanced by workplace policies.

CCB Constraints

Elements of the CCB program, such as the application process and the remuneration available, imposed time and space constraints on both the social workers and caregivers. Social workers discussed how the length of the application process, together with the 2-week unpaid waiting period made it difficult to translate knowledge about the CCB given the palliative prognosis of the patients. One social worker reported:

Our average length of stay here for a patient is approximately 20 days, so by the time a patient arrives ... here it's really too late for Compassionate Care Benefits, because by the time they go through the waiting period, plus the time and effort applying ... it's just not quick enough for people.

Social workers described the situation where caregivers learned about the CCB far too late to consider applying, given the application process and waiting period. This situation was heightened by the fact that caregivers needed to be emotionally ready to accept the terminal prognosis, a process which often takes valuable time that could be spent applying for the CCB.

Social workers also discussed the nature of the application process as potentially acting as a barrier, given the fact that the paperwork involved a number of individuals at varying locations; these locations included the caregivers workplace (for the record of employment) and the physician's office (for the medical certificate). Social workers described the time it took to oversee and support the caregiver in applying as a function of accessing these two documents. In many of the scenarios discussed by social workers, difficulties in accessing either of these two documents prolonged the application process:

I'm having some problems with the way doctors complete the medical form. So I'm having patients after the fact, so the loved ones dead, calling

me telling me that they got rejected and didn't get any money on the compassionate leave. And it's related to how that form is filled out ... so a family doctor doesn't always fill it out correctly. Especially if they're not familiar with it or they're not doing it frequently.

While the above quotation discusses the role of the family physician specifically, social workers also had physicians within their workplaces fill out the medical form. The decision to approach the patient's family doctor, or a specialist physician within the palliative setting was often made through conversations between the caregiver and social worker. These conversations were often complicated by factors such as: physicians' knowledge (or lack of) of the program; accessibility of physician and; caregiver's ability to independently facilitate the process, the latter which reflected their dependence on the social worker to acquire the documentation.

While both social workers and caregivers negotiated their own constraints, they both had to contend with the constraints imposed through the CCB program. In particular, the application process and remuneration available through the CCB affected the use of the KT tools specific to the CCB.

DISCUSSION

Analysis of the data demonstrates the importance of space and time in the knowledge translation of the CCB and the use of the KT tools developed in the first phase of the project. The elements of space and time negotiated by the social worker and the caregiver, and those that inevitably arise due to the characteristics of the CCB, seemed to have reflected the three types of constraints discussed by Hägerstrand (1975): capability constraints, coupling constraints, and authority constraints. Each of these constraints will be discussed below in relation to the findings and supporting literature.

As discussed in the Introduction section, capability constraints are defined by the physical location in which individuals involved in a project reside, known as stations (Hägerstrand, 1975). Caregiver stations included their places of work and these may have affected their knowledge of the CCB and ease of access to the program. In the case of translating knowledge about the CCB, the location of the social workers' practice defined how social workers identified locations for both placing the KT tools and introducing conversations with caregivers. Finally, social workers discussed Service Canada as both a virtual and physical station they accessed themselves and/or directed caregivers in order to obtain the medical form and submit the application.

While not specifically identifying time geography, access to clinicians, such as social workers, during palliative care is affected by the health care system and informed by the location of care. Preferred location of death has

been shifting from institutions to the community and private home. The provision of care has also been shifting from formal to informal, with more care being provided by informal caregivers including friends and family members (Williams, 2002). As this continues to occur, given the already influential nature of caregiver and social worker stations, the translation of knowledge about the CCB and the use of the KT tools may also need to broaden to include a wider number and range of community-based stations. Giesbrecht et al. (2009) has identified a number of care pathways through which this may be achieved.

Coupling constraints are identified as the collaborations between individuals to realize a project; these include the physical location, point in time, and duration of the collaboration (Hägerstrand, 1975). Key coupling constraints between the social worker and the caregiver in the KT of the CCB include the development of a therapeutic relationship, the introduction of the CCB, and use of the KT tools. The locations of these collaborations are entitled bundles. Having social workers introduce the CCB and the KT tools in conversations to caregivers was a key point in the knowledge translation of the CCB and these could occur in various locations and spanned various amounts of time. This collaborative bundle was therefore variable and affected by factors such as the caregiver's interest in applying for the program and the social worker's interest and ability to further facilitate the application process.

The caregiver's interest in applying for the CCB seemed to be influenced by the acceptance of the terminal prognosis. This operates as a contextual component of this bundle, the late onset of which reflects the death-denying culture of Canadians and ostracization of those involved in palliative care (Carstairs, 2010). As described by a participant in Health Canada's (Ashpole, 2004) caregiver study, "it is as if society disapproves of people who are seriously or terminally ill and shuns those who care for them" (p. 7). The hesitancy to accept the terminal prognosis is often documented in the shifting emotions of the caregivers during the dying process. Caregivers must constantly renegotiate as the care needs of the patient change, typically with growing frequency at the end-of-life (Ashpole, 2004). The information needs of the caregivers change during the continuum from diagnosis to death (Ashpole, 2004). Caregiver intake of information during this time period is often impaired by "information overload." Information about the practical and physical components of the patient is often prioritized by the caregiver, who may neglect their own emotional, physical, and psychological needs (Dunbrack, 2005). Given the mandate of the CCB to support the caregiver, the Benefit may be viewed as less important by the caregiver when compared to the patient's immediate care needs. Understanding the point at which to introduce information and creating opportunities for information uptake was a key element of the bundle between the social worker and the caregiver, with respect to applying for the CCB.

These social workers believed that the KT tools were invaluable in enhancing information uptake; operating as tangible materials that the caregivers could continue to refer to. Previous literature suggested that information resources for end-of-life caregivers has neglected different learning styles. For example, some caregivers may want to consult resources as quickly as possible, while others may want to collect information to review later at a slower pace (Dunbrack, 2005). This was confirmed in this study, as social workers described using the KT tools differently and staging conversations differently depending on the needs of the caregiver.

The final set of constraints identified by Hägerstrand (1975) termed authority constraints, or domains, signify the conditions of access. Within the data, domains included the referral process whereby caregivers access social workers, the application process, and remuneration details of the CCB. As discussed, social workers' stations also influenced how they received referrals and identified caregivers who may benefit from information about the CCB. However, this domain was ultimately shaped by the nature of the health care system whereby the referral process that was implemented was defined by the health care setting, or the location. The conditions of accessing the CCB—including the waiting period, together with the limited length afforded to successful candidates—may mean that caregivers postpone applying and thereby risk becoming ineligible for the CCB as the client's health deteriorates rapidly and the benefit is not accessed in time. This has been documented in evaluations of the CCB (Williams, Crooks, et al., 2010).

Evaluation research about the CCB has identified a number of other locations and stakeholder groups that can facilitate disseminating knowledge about the CCB. This research study was designed to develop KT tools for one of the stakeholders, social workers. The constraints identified suggest broadening the KT strategy to a greater number and range of geographic locations and identifying locations where knowledge may be translated earlier during the disease process. This may mean including other health professionals identified by Giesbrecht et al. (2009) such as family physicians and nurses, who not only see family caregivers more regularly, but have the ability to introduce the CCB into conversations earlier, before referral to a social worker might be likely to take place. Likewise, identifying venues where patients with chronic illnesses reside may be a valuable direction. Translating knowledge about the CCB in these stations may help overcome some of the constraints of the program. There are a number of strategies that have been identified including enhancing or broadening the stations at which knowledge translation may occur and redefining the individuals or clinicians who may translate knowledge, as well as initiating the collaboration between clinicians and caregivers earlier while simultaneously using the KT tools earlier in the caregiver's journey. There are a number of strategies that have been identified to alleviate some of the barriers imposed first and foremost by the authority constraints, as well as to strengthen the coupling and capability constraints.

Distinctive temporal elements during the care trajectory—including diagnosis, identification as a terminal patient, end-of-life, and postdeath—have been associated with unique information needs (Ashpole, 2004). Research-based recommendations to the Canadian Government have suggested that increased awareness about HPC in general should be accomplished by a two-pronged approach; tailoring strategies to inform caregivers during crisis or “just-in-time,” and developing strategies to target caregivers beforehand. At present, the CCB is largely translated after the patient is diagnosed as terminal and nearing end-of-life, or “just in time.” Given this article’s findings, it may be appropriate to begin KT about the CCB and utilize the KT tools after initial diagnosis, potentially before caregivers reach crisis. Interestingly, advocates have suggested the CCB be extended to allow access to caregivers for caring for patients with life threatening chronic illness (Carstairs, 2010). This would significantly alter the KT process of translating knowledge about the CCB given the constraints identified in this research.

Limitations

The sample size of this project was small, with acknowledged regional specificity due to sampling from the Greater Toronto Area in Ontario, Canada, and a lack of community social worker representation. Community social workers and representatives from other care locations such as long-term care homes and hospices should be included in further investigations. As such, the results may not be representative of social workers working in other regions or locations/settings/stations. The lack of formal evaluation of the KT tools and measurement of use may also be considered a limitation. However, this phase of the research project was meant to test out the KT tools as part of the tool development phase and not as a formal evaluation to test for actual knowledge change and program uptake rates. Future research is being planned to explore the development and implementation of KT tools further and may include a more formal evaluation to quantify tool use and uptake rates. If time and resources allows, collecting data from the other half of the dyad (caregivers) would allow triangulating the findings, and ultimately most valuably informing the KT of the CCB. For example, it would be most useful to capture caregivers’ perspectives on when and how they were first introduced to the CCB and when they were ready to act (potentially) on such information.

Hägerstrand’s (1975) time theory has provided the foundation upon which other social theories have developed, including Giddens’s (1984) structuration theory. According to Giddens (1984), social practices are influenced over space and time by elements such as structure and agency. This approach is useful in understanding how practices are constrained and enabled, and would therefore be a useful addition to this research.

CONCLUSION

As identified by the number of constraints discussed, KT of the CCB is difficult given the complexity of the relationships and the variations in spatiality and temporality. Knowledge translation is inherently geographical; most KT theories include tailoring information to the local context (see, for example, Graham et al., 2006; Rycroft-Malone, 2004). Often, the process is characterized by getting the right information to the right place at the right time (Kho et al., 2009). However, little research has been done to understand the complexity of time and place in knowledge in the process of KT. This study provided some preliminary findings that attempt to portray some of the influences of time and place on KT in HPC. Ultimately, the use of the KT tools about the CCB occurred within the context of time and place through which the social workers and caregivers moved. Despite concerns about tailoring KT strategies to local needs (Graham et al., 2006), research has been slow to employ geographical theory in KT strategies.

The results suggest that social workers provide a critical role in KT about the CCB. The results also suggest the need for targeting caregivers earlier in the disease progress (before the terminal diagnosis); further, knowledge tools need to be disseminated to more locations. These results may be valuable to policymakers and palliative care providers, as well as theorists interested in ongoing applications of time geography in knowledge translation and the consumption/production of care.

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