

# Web-Based Knowledge Transfer (KT) Strategies and Technology Issues: The Case of a Cooperative Oncology Project

Marie-Josée Levert\*,  
Hélène Lefebvre and  
Michelle Proulx

Centre for Interdisciplinary Research in Rehabilitation of Greater Montreal (CRIR), Interdisciplinary Research Group on Resilience and Community Rehabilitation (GIRR-CRIR), Canada

**\*Corresponding author:**  
Marie-Josée Levert

 mj.levert@umontreal.ca

Assistant Professor, Faculty of Nursing, Centre for Interdisciplinary Research in Rehabilitation of Greater Montreal (CRIR), Interdisciplinary Research Group on Resilience and Community Rehabilitation (GIRR-CRIR), University of Montreal and Researcher, Canada.

**Tel:** 8514 343-2178  
**Fax:** 514-343-2306

**Citation:** Levert MJ, Lefebvre H, Proulx M (2017) Web-Based Knowledge Transfer (KT) Strategies and Technology Issues: The Case of a Cooperative Oncology Project. J Health Commun. Vol. 2 No. 4: 47.

## Abstract

While the scientific community has fully embraced new information and communication technologies, health facilities have everything to gain in following suit. However this does not happen without difficulty, although many access barriers continue to exist in institutions. A collaborative partnership research project of the Nursing network, a partner in care/Le Réseau infirmier un partenaire de soins (NNPIC/RIUPS) of the Université de Montréal, Developing a clinical innovation in oncology: For a better continuum of care and services for cancer patients, has clearly highlighted this difficulty. The purpose of this paper is to provide a brief illustration of the potential of using a web-based knowledge transfer strategy as part of a cooperative project as well as one of its key challenges arising from access barriers in institutions.

**Keywords:** Nursing; Oncology; Facebook; Twitter; Hospital discharge; Clinical practices; Social media

**Received:** June 26, 2017; **Accepted:** July 06, 2017; **Published:** July 13, 2017

## Project Description

This innovation aimed at bringing together oncology nurses leaders and their multidisciplinary clinical teams from clinical settings in the Greater Montreal that agreed to combine their expertise with patient partners and researchers in order to develop and test an interactive web 2.0 technology, the Forum for Knowledge Exchange (FKE) [1-3]. The aim was to improve practices related to hospital discharge planning and care transitions in oncology.

The project, which was based on the Implementation Science Model of Fixsen et al. [4], consisted of two phases: The first preparatory phase aimed at deploying the FKE infrastructure and its implementation in the multidisciplinary clinical teams to transform practices in discharge planning and oncology care transitions. The second exploratory phase consisted of assessing the impacts of the FKE in terms of: 1) Its implementation in the participating clinical settings; 2) On the accessibility of information/knowledge and best practices as well as on the transformation of practices in hospital discharge planning and care transitions in oncology.

The project involved six (6) clinical settings, which allowed to cover the continuum of care (primary, secondary and tertiary),

and provided diversified oncological populations (5 settings dedicated to the adult clientele and 1 to the pediatric clientele) and types of cancers treated (e.g., breast cancer, pancreatic, acute myeloid leukemia). Multidisciplinary clinical teams were created in each setting (composed of 4 to 12 clinicians from different disciplines and managers), and they were tasked with participating in its use, as well as in knowledge exchange and collaborative work to improve clinical practices. Each team was supported by a nurse leader, who closely collaborated on different project committees, including the knowledge user group (KUG). This group comprised the research team, nurse leaders from clinical settings and patient partners. During the development of the FKE, the KUG met on a regular basis to share experiences, solve problems encountered within the clinical settings, plan activities, and develop engagement strategies.

While the project has produced many positive results, it has been considerably constrained by technological challenges in partner facilities.

## Main Outcomes

### A FKE available to the oncology sector

An operational and functional French version of the FKE is now accessible to professionals/administrators and patients/loved ones in the field of oncology. The platform ([www.riups.org](http://www.riups.org)) [5] presents several levels of user accounts, secure file management tools, and various functionalities (e.g., a module enabling collaborative work between partners; a module for the dissemination and popularization of knowledge; and a module for adding documentation with URL renewal). A section is specifically dedicated to patients/loved ones, providing them the opportunity to share resources and links they consider useful. A Facebook page and a Twitter account have been added to the platform in order to reach young professionals more comfortable with and interested in new technologies (Facebook, Twitter). The affluence of the platform (visits/use) is steadily increasing. The data gathered for the period from December 17<sup>th</sup>, 2014 to August 30<sup>th</sup>, 2015, places at 155 the number of users initially registered, rising to 214 from February 1<sup>st</sup>, 2016 to May 31<sup>st</sup>, 2016. As of February 2017, the FKE counted 234 users.

### Highlighting an innovative KT strategy

The project revealed an innovative strategy for knowledge exchange and co-construction as well as an original collaborative work model. The strategy engages active patient partners, nurse leaders and researchers involved in knowledge dissemination and transfer with the support of the FKE and its multiple activities (e.g. 7 webinars and journal clubs carried out, nearly 40 questions posed during the discussion forums for a total of 243 interactions, 676 news posts shared in weekly newsletters). The strategy began to develop in the participating clinical settings through the many activities nurse leaders organized, of their own initiative, that were supported by the platform.

### The benefits of a partnership between patient partners, nurse leaders and researchers

The KT strategy, which is rooted in the day-to-day practice of nurse leaders and fueled by the comments of patient partners and researchers, has given the project a new meaning. Partners developed new knowledge on difficulties surrounding hospital discharge planning and care transitions in oncology [6-8], through various common activities (e.g. clinical settings adding internal documents; development of an integrative framework for the trajectory of care in oncology). They were informed and made aware of the multiple challenges associated with care transitions and discharge planning, and of the importance of finding solutions. The project partnership helped break down the silos between institutions and led to the development of a common discourse and to the acknowledgement of diverse philosophies and different ways of administering care. Thanks to the active participation of patient partners, the difficulties associated

with discharge planning and care transitions were progressively examined in a new way. From an initial direction that relied on a professional and organizational viewpoint, the project evolved toward a different representation of care transitions in oncology and discharge planning, from the point of view of cancer patients and their loved ones. This led to a first draft of the accompanying tool, currently under way that will be available to patients and their relatives. The nurse leaders and administrators interviewed noted that they were now convinced of the importance of encouraging patient partner participation in future RIUPS projects and in their own projects to co-develop clinical practices [9]. Patient partners also benefitted from their own participation (e.g., they felt valued because of their contribution; they were able to distance themselves from their experience of cancer; and they now have a better grasp of the functioning of the health care system).

### The promotion of the FKE

The spread of the FKE supported and fueled by its partners and the patient partnership that is central to the project, was very well received in the international Francophonie. A grant was awarded to the SIRIC (Université Bordeaux, Bergonié Institute, and CHU Bordeaux) BRIO (Professional Research in Cancerology, Bordeaux) in France for a breast cancer research project. Moreover, a Belgian RIUPS is in development.

### Implementation challenge: The technological stakes of the partner institutions

Despite these positive outcomes, its partners faced significant challenges that impeded their efforts to mobilize clinical teams as desired in the original draft. The six clinical settings reported problems with their computer networks (e.g. problems with Wi-Fi connection, slowness and obsolescence of computer systems) and the computer security of institutions, including firewalls, has been a major hurdle in this regard. Three clinical settings lamented the lack of access to technological supports [10-12]. Respondents also considered that they had little or no room for maneuver when the access problems stemmed from the institution's computer network. In addition, access to computers was uneven across settings and services. Computers were used continuously for the work of other clinicians or doctors, leaving little time and place to connect to the RIUPS. Otherwise, some considered that the computers were not sufficiently equipped to support the platform (e.g. the absence of Google Chrome on the workstations). Others complained of difficulties accessing rooms or the necessary equipment (lack of availability of computers, microphones) for holding webinar or videoconferencing activities.

## Conclusion

The RIUPS implemented an innovative clinical collaborative research project in partnership with multiple institutions and patient partners. In an optimal technological environment, bedside clinicians, clinical decision-makers, members of senior administrations, patients and relatives (and others) can all be in direct contact and have the possibility of engaging, synchronously

and asynchronously, in a dialogue with others. They may all have easy access to knowledge and internal documentation provided by partner institutions (e.g., tools, teaching guides), and also have the possibility of participating in collaborative work virtually. KT strategies that build on information and communications technologies appear promising, in this respect, as they provide rapid access to best clinical practices and research results, provide immense opportunities for knowledge sharing and

cooperative work, in virtual mode, and for continuing education, at lower costs. However, these technologies must be supported by resources in facilities. Political and organizational actors will have to mobilize to remove barriers to access (e.g., removing firewalls or increasing bandwidths). In future years, information technologies will have to become mobile (e.g. iPad tablet application, web application, social media) and allow quick access to research on topics or topics that require rapid response.

## References

- 1 Ho K, Bloch R, Gondocz T, Elizabeth F, Wenghofer EF (2004) Technology-enabled knowledge translation: frameworks to promote research and practice. *J Contin Educ Health Prof* 24: 90-99.
- 2 Center for Applied Sciences of Health of the University of Montreal (CPASS) (2013) A guide to the implementation of the partnership of care and services, towards optimal collaboration between practitioners and with the patient. Québec: Université de Montréal, Collaborative and patient/CPASS partnership.
- 3 Lefebvre H, Brault I, Levert MJ, Roy O (2015) An innovation for a better continuum of care in oncology: development and implementation of a web portal for the exchange of knowledge. *International Francophone Journal of Nursing Research* pp: 1-10.
- 4 <http://nirn.fpg.unc.edu/sites/nirn.fpg.unc.edu/files/resources/NIRN-MonographFull-01-2005.pdf>
- 5 <http://riups.org/>
- 6 Kuhrik NS, Kuhrik M, Rimkus CF, Tecu NJ, Woodhouse JA (2008) Using human simulation in the oncology clinical practice setting. *J Contin Educ Nurs* 39: 345-355.
- 7 Horvath LE, Yordan E, Malhotra D, Leyva I, Bortel K, et al. (2010) Multidisciplinary care in the oncology setting: historical perspective and data from lung and gynecology multidisciplinary clinics. *J Oncol Pract* 6: e21-e26.
- 8 MacConaill LE, Garraway LA (2010) Clinical implications of the cancer genome. *J Clin Oncol* 28: 5219-5228.
- 9 Zarour HM, Ferrone S (2011) Cancer immunotherapy: progress and challenges in the clinical setting. *Eur J Immunol* 41: 1510-1515.
- 10 Greenlee H, Abascal K, Yarnell E, Ladas E (2007) Clinical applications of Silybum Marianum in oncology. *Integr Cancer Ther* 6: 158-165.
- 11 Moos MK, Bartholomew NE, Lohr KN (2003) Counseling in the clinical setting to prevent unintended pregnancy: an evidence-based research agenda. *Contraception* 67: 115-132.
- 12 Ventola CL (2014) Mobile devices and apps for health care professionals: uses and benefits. *P T* 39: 356-364.