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PRESIDENTS MESSAGE

Exciting paper, poster and education sessions at the annual CAOT Conference in Whitehorse demonstrated the growing impact that occupational therapists are having on the health and wellness of all Canadians. However it was also apparent that although we practice in diverse areas, many clients still cannot access service. Nor can they access much of the information available to the public or the decision makers that control the distribution of services.

There is a critical shortage of occupational therapists in many leadership areas who would facilitate the required transfer of knowledge, particularly in practice areas in mental health, primary health care, home care, school based practice, and even traditional areas of rehabilitation. The recent coverage in the Globe and Mail on issues of mental health and wellness bring to the forefront the importance of knowledge, its translation and its potential impact for the profession of occupational therapy.

This special issue addresses the topic of knowledge and will demonstrate how it can be used in diverse areas to ensure a healthier Canadian public.

Elizabeth Taylor
President of CAOT

Knowledge exchange and translation: An essential competency in the twenty-first century

Mary Law, Cheryl Missiuna, Nancy Pollock

In every client encounter, an occupational therapist has the responsibility to obtain informed consent for all assessment and intervention. The informed consent process involves an exchange of information with the client that reflects the therapist's evidence-based knowledge about the type of assessment and treatment, expected benefits or risks, alternative treatments and what is likely to happen without treatment (Health Care Consent Act, 1996). The process of obtaining consent involves an explicit exchange of knowledge between therapist and client. The ability of competent practitioners to acquire knowledge, to synthesize it and to present it in a way that will be meaningful to each client, therefore, is not just an academic exercise. Knowledge translation (KT) is essential to every clinical encounter conducted by an occupational therapist.

What is knowledge translation?

Knowledge translation (KT) takes place on a daily basis in our interactions with clients, families, team members, administrators, policymakers and the general public. The "exchange" part happens when therapists share what they know from the evidence and their experience but also when they openly receive information from clients and other stakeholders who may view a situation from diverse perspectives. The process of "translating" knowledge, however, embodies much more than summarizing concepts and research findings into user-friendly language. The KT process is complementary, and may even seem similar, to evidence-based practice, which is an approach to clinical decision-making based upon the integration of the research evidence with clinical expertise and the client's values and situation (Straus, Richardson, Glasziou & Haynes, 2005). KT is more of an overarching construct that can involve any or all of the steps involved with responding to clinical dilemmas including: synthesizing what is already known, defining a research question, conducting the research, making research findings accessible to others, interpreting research in the context of other knowledge, acting on the basis of that knowledge, reviewing its impact and influencing subsequent development of new research questions (Canadian Institutes of Health Research, 2007). KT can and does occur at each of these stages.

KT as a field of study

KT has been defined by the Canadian Institutes for Health Research (Schryer-Roy, 2005) as:

"the exchange, synthesis, and ethically-sound application of knowledge - within a complex set of interactions among researchers and users - to accelerate the capture of the benefits of research for Canadians through improved health, more effective services and products, and a strengthened health care system."

This definition highlights the role of KT in ensuring that what is learned through research is shared rapidly in a focused and accessible manner so that practitioners are evidence-informed and clients benefit.

Studying the process of KT is actually quite challenging because it is complex and may involve many different types of individuals and/or organizations. It can be helpful to think about key groups within the health care system who possess different types of valuable information and who must work together as a system to exchange knowledge. Ho, Lauscher et al. (2004) describe these groups as:

- knowledge *producers* (the community of researchers)
- knowledge *consumers* (the community of practice – clinicians)
- knowledge *beneficiaries* (the community of clients)

In addition to these groups, the process of KT involves the decision-makers and policymakers who influence the system and who may have different priorities and expectations regarding service delivery, use of evidence, and outcomes.

KT methods - What works, and what doesn't?

In health care, most of the KT research that has been conducted has evaluated methods for improving uptake and use of evidence by clinicians; most often, physicians. It is clear that the more traditional, passive methods of disseminating information such as journal articles or large group educational sessions are generally ineffective in changing practitioner behaviours (Grimshaw et al., 2001). However system-

atic reviews of studies examining many other KT interventions suggest that there is no one optimal way to translate knowledge to practitioners (see summary by Sudsawad, 2007). Approaches such as websites, newsletters and short information bulletins are useful to increase awareness and general knowledge, but are not likely to lead to changes in practice. The KT interventions that have been shown most consistently to be moderately effective are both interpersonal and multifaceted (Grimshaw et al, 2001). Some examples of strategies that have been investigated include educational outreach, reminder systems, audit and feedback, interactive continuing education sessions, and problem-based learning groups. Since studies that are reviewed often include a combination of interventions, it has been difficult to identify which components led to success (Sudsawad, 2007). We do know that KT is most effective when the source of the knowledge is perceived to be credible and competent, the information is relevant and suitable to the learning context of the practitioner, is easily accessed and is presented in an understandable manner (Lavis, Robertson, Woodside, Mcleod & Abelson, 2003).

While increased uptake of evidence by practitioners is undoubtedly beneficial to clients, far less research in rehabilitation has focused directly on the transfer of knowledge from clinician to client or vice versa. One might think that requests by clients based on information they have gathered would lead to changes in practice but the evidence to support this type of uptake is modest (Sudsawad, 2007). Research in adult learning methods and the lessons learned from KT studies in public health can inform knowledge exchange within the field of rehabilitation. In the next decade, this will become an important area of study.

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"While the importance of moving knowledge into practice has been acknowledged by researchers, practitioners, consumers and policy makers, the most effective methods of doing this remain uncertain."

Innovative KT practices in occupational therapy

The articles selected for this special issue showcase a wide array of KT methods that have been applied across different practice settings. A number of the articles describe strategies for building and maintaining communities of practice that facilitate KT. White et al. (pp. 6) developed three online communities of practice in Atlantic Canada to support the sharing of knowledge and evidence. McDonald et al. (pp. 8) describe a collaborative approach among three organizations to build a sustainable provincial knowledge exchange and translation strategy in work health through a network of therapists selected as educational influentials. The article by Moll and Pond Clements (pp. 17) highlights the work that can be done in partnership with employers to develop evidence-based materials for employers about attending to issues of mental illness in the workplace. Moore and Lewis (pp 15) illustrate how a group of therapists can work together to effectively implement use of an outcome measure into their practice.

KT is facilitated by the availability of easy-to-understand knowledge summaries. Arsenault and colleagues (pp 25) provide information about the development and implementation of a modular, evidence-based, education program to enable therapists to be oriented to a particular service or update/consolidate their skills. The importance and value of therapist and client experiences and reflections are highlighted in the analysis and summary of contents of the *Occupational Therapy Now* 'Sense of Doing' column (Polatajko & Davis, pp. 10).

The use of technology as a vehicle to support knowledge exchange will likely increase over the next few years as it is being shown to improve access and uptake of information and speed up the knowledge transfer process among communities of practitioners (Ho, Lauscher et al., 2004). White and colleagues use web-based technology to bring together a community of practitioners online. Clark et al. (pp. 28) describe how engagement in an online Masters program has assisted one organization in speeding up the process and increasing therapists skills in translating research information into their practice. Another new

technology that is able to "push" well-synthesized evidence out to potential users is illustrated in Law et al.'s description of the new McMaster PLUS REHAB project on pp. 13. Lennox shares ideas about how the data that is summarized by the Canadian Institutes for Health Information can provide information to advance occupational therapy practice (pp. 20).

The benefit of using multifaceted and interpersonal KT interventions is illustrated by DeLaat and colleagues who shared specialized knowledge with primary care physicians through educational outreach, individualized feedback and an online teaching case report that showed videoclips of children (pp. 22).

As Rogers and Holm (1994) outlined more than a decade ago, clients have the right to expect that competent practitioners will provide a service that is based on science, is effective and is appropriate to their needs and preferences. Today, that competence requires that occupational therapists acquire and synthesize evidence from the literature, integrate it with knowledge gleaned from prior experience and exchange this knowledge transparently with their clients to deliver the best possible service. This special issue inspires us to be forward thinking and innovative in KT with our clients, our colleagues, our employers and our funders.

Additional Resources in Knowledge Translation

- Sudsawad's (2007) review of the major concepts and conceptual frameworks in knowledge translation is user-friendly and applicable to rehabilitation practitioners in Canada. Available at: http://www.ncddr.org/kt/products/ktintro/allinone.html
- Canadian Health Services Research Foundation has produced an excellent summary to support clinicians who wish to establish a community of practice around knowledge exchange. Available at: http://www.chsrf.ca/other_documents/insight_action/insight_and_action_e.php?intIssueID=30
- CanChild's Keeping Current on Knowledge Transfer in Health Care provides ideas about how to develop a plan for knowledge translation and links to other selected KT resources on a variety of topics. Available at http://www.canchild.ca/Default.aspx?tabid=124

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Online communities of practice: Enhancing scholarly practice using web-based technology

Cathy M. White, Mari C. Basiletti, Anne Carswell, Brenda J. Head and Lilli Ju Lin

As the practice of occupational therapy increasingly becomes a knowledge-based activity, creating, applying, and sharing relevant knowledge become key challenges to continuing competency. It can, however, be challenging to find time to search for evidence, or gain access to other therapists in similar practice areas who share our questions and concerns.

In Atlantic Canada, as a result of a project initiated by the School of Occupational Therapy at Dalhousie University, the need for individual "communities of practice" emerged as a possible solution to this challenge (Manojlovich, 2006). Communities of practice are most valued for their ability to build relationships, create a sense of belonging, a spirit of enquiry, and a professional confidence and identity from which professional knowledge can flow (Wenger, McDermott & Snyder, 2002).

Communities of practice are defined as, "...groups of people who share a passion for something that they know how to do, and who interact regularly in order to learn how to do it better" (Wenger, 2004, p. 2). This definition aligns with the mandate of the Canadian Association of Occupational Therapists (CAOT) Code of Ethics, which requires occupational therapists to apply new knowledge and skills to their professional work based on best available evidence, and to contribute to the development and/or dissemination of professional knowledge (www.caot.ca).

Communities of practice represent an exciting opportunity for occupational therapists. We want to move in the direction of evidence-informed practice, but there are barriers. We are geographically separated. We don't have a lot of time, and many of us don't know where to start doing our own research. We need support. By using available technology, online communities of practice have the potential to bring people together virtually, to share expertise, identify gaps within an environment of mutual support and to advance scholarly practice.

In Atlantic Canada, we have taken steps to integrate the use of online communities of practice to 'test the waters'. Based on interest identified when Atlantic Canadian therapists were surveyed (Manojlovich, 2006), three online communities have emerged: Research and Aging; Occupational Therapy and Pressure Management; and Occupation, Recovery and Mental Health. These communities provide practice guidelines, available evidence, and an opportunity for discussion. As they evolve, common clinical questions may emerge, leading the way toward further enquiry, building scholarly practice and enhancing research capacity.

"In Atlantic Canada, we have taken steps to integrate the use of online communities of practice to 'test the waters'. "

The Research and Aging community of practice provides a forum for sharing information about evidence-based practice, clinical resources and the latest research in the area of occupational therapy practice as it relates to the unique challenges faced by older adults. Resources are posted, and there is a discussion board where members can address common issues in this ever-growing area of practice with the aging population.

The Occupational Therapy and Pressure Management community emerged from a group of occupational therapists who realized that pressure management was critical to enabling clients to participate in their occupations of choice. Therapists in this community can access evidence and practice guidelines, and are currently discussing specific case examples. By integrating available evidence with experience, gaps can be identified, practice can be shaped, and clients stand to benefit.

The Occupation, Recovery and Mental Health community is currently focusing on the challenge of integrating the recovery model of mental health care into occupational therapy practice, given the challenge that most human resources are allocated to acute care settings. The recovery model shares a vision with occupational therapy in promoting increased community participation in valued roles for clients with persistent mental illness.

These communities of practice, currently restricted to occupational therapists in Atlantic Canada, utilize Dalhousie University's Integrated Learning Online (ILO) services, which include the Blackboard Learning System (BLS). The BLS allows for the posting of articles and resources, a forum for ongoing discussion among members and the opportunity for presentations and discussions to

occur in real time (Head, Ju Lin, Manojlovich, & White, 2007: www. occupational therapy.dal.ca).

In order for communities of practice to be successful, for knowledge to actually be applied to practice, frontline practitioners who use the knowledge and see how it impacts their work must be involved. They are most valuable and generate the most enthusiasm when they respond to the character and energy of the community members in an informal manner, but have a shared interest in benefiting the practice and the organization. As such, they are guided by both a top-down and bottom-up approach (Wenger, 2004), and because of this, they can enhance performance on both an individual and organizational level (Garcia & Dorohovich, 2005).

Communities of practice hold great promise for occupational therapists, but their use in Atlantic Canada is in its infancy. Feedback has been obtained through conference presentations (Head, White, Ju & Manojlovich, 2006; Head, Ju Lin, Manojlovich, & White, 2007), which has generated interest and helped to evolve the process. However there are challenges in finding and using suitable technology. The communities do not run themselves. They can be challenging to set up, and require significant commitment from a facilitator (Garcia & Dorohovich, 2005). The facilitator need not be an expert in the field, but must bring enthusiasm and organization to the community if it is to thrive. The activities of the community must generate interest and excitement, and must be relevant to practice to keep members engaged (Wenger et al., 2002).

Wenger (2004) highlights that knowledge is power, but that hoarding knowledge is not beneficial. Peers and the organization must use knowledge to build a reputation that can be valued and recognized. By clarifying goals, creating a user-friendly structure, and developing credibility, communities of practice can provide a platform to develop such a reputation (Garcia & Dorohovich, 2005). As we take a leadership role in Atlantic Canada, we can be actively involved in the evolution of occupational therapy practice through the use of online communities of practice.

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About the authors –

We are a group of clinical, supervisory and academic occupational therapists representing all four provinces in Atlantic Canada, who share an interest in the development of online networking. We are affiliated with Dalhousie University, and are in the early stages of developing "Online Communities of Practice".

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Moving evidence into work practice: A collaborative approach to promoting and sustaining knowledge exchange

Kathy MacDonald, Lynn Shaw, Christie Brenchley, Rosemary Lysaght,
Susan Rappolt, Elinor Larney and Rhoda Reardon

This paper outlines the collaborative efforts and actions of three organizations to create, promote, evaluate and sustain a system for knowledge transfer and exchange (KTE) in the work practice sector. The steps used in getting started and building capacity for KTE are shared here to encourage others to design unique communities of practice to support KTE in other sectors of occupational therapy practice.

Processes that increase the likelihood of evidence being used in practice:

Moving research findings into clinical decision-making involves making research findings understandable, practice relevant and useful in the field. Strategies are needed to support the review, reflection and critical appraisal of information needed for therapists to integrate research knowledge in practice (Craik & Rappolt, 2003). According to Lavis (2003a, b) the dissemination and use of research findings is most effective when it involves what have been coined 'push', 'pull' and 'dissemination' strategies and when it involves the users of information as early as possible in the research and knowledge transfer process. Push strategies focus on dissemination, and increasing awareness of and access to information. Pull strategies involve responding to user's needs and suggestions, and dissemination strategies involve creating opportunities for dialogue between the researchers and knowledge users. Our plan to develop a sustainable KTE process for the work practice sector builds on these strategies.

Creating the partnership around shared goals

Three organizations interested in research-informed practice and practice-informed research embarked on the development of a partnership to support the transfer of occupational health and safety research into the practice of occupational therapists working in the workplace through the creation of an unique occupational therapy network.

Each of the participating organizations had distinct but complimentary goals:

- The Ontario Society of Occupational Therapists (OSOT) was interested in supporting opportunities for ongoing networking and knowledge sharing among members to inform best practice in the work practice arena. OSOT members identified the need to promote and develop the profession's roles in work practice as a critical priority for the profession's future success. The commitment to address these needs is a strategic priority of the Society.
- The Institute for Work & Health (IWH) is an independent, not-for-profit research organization with a focus on research that will promote, protect and improve the health of working people. In addition to generating and synthesizing research knowledge, the Institute has committed resources to KTE. This function exists to ensure that research knowledge reaches those audiences who might use the knowledge in day-to-day decision-making and to ensure there is ongoing exchange of ideas, information and experience.
- The College of Occupational Therapists of Ontario's (COTO) mission is "to protect the public interest and well-being by registering, regulating and supporting the ongoing competency of occupational therapists." The College participated in the network project in recognition that its focus on promoting evidence-based practice was consistent with the College mission.

Drawing upon shared goals these three organizations developed the following network structures to support KTE in the occupational therapy community.

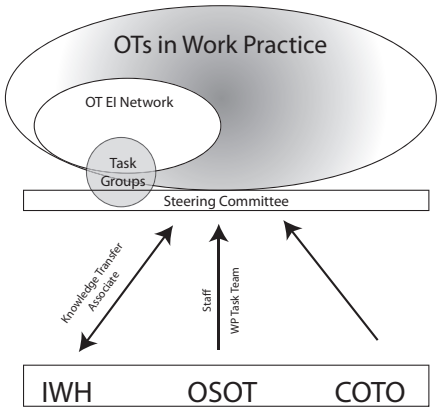

Figure 1: Partnerships and Structures supporting OT EI Network and KTE

Developing a Steering Group

A Steering Group was established and led by the Knowledge Transfer Associate at IWH. Members included representation from the Work Practice Task Team of OSOT, OSOT representatives (Executive Director and Professional Practice Director) and academics from three Universities with expertise in evidence-based practice and work practice. COTO continued to support the network but was not directly involved in the events planning or tool development activities. The Steering Group worked to establish the first Occupational Therapy Educationally Influential (OT EI) Network. OT EI's are a group of occupational therapists considered to be informal opinion leaders by their peers. The process of selection of OT EI's is outlined below.

The Steering Group is responsible for regular contact with the OT EIs, planning ongoing events, development of task groups, evaluation of the KTE processes and managing the confidentiality of the database of the OT EIs.

Establishing the OT EI network

The OT EI network was created using a well-established survey method developed by educator Roland Hiss (1978). The Hiss methodology was used to identify the "educationally influential" members of the occupational therapy community that were workplace focused. Hiss demonstrated that health-care professionals (in his work, physicians) achieve much of their on-going learning from peers who they self-select as mentors and teachers. Hiss showed that these individuals share common characteristics and that it was possible to systematically identify them by surveying a group of health-care professionals within a 'practice community'.

The Steering Group identified occupational therapists active in workplaces and distributed the Hiss survey that could be returned by email or fax. After the EI group was identified using established selection criteria, they were invited to join the network to assist in knowledge transfer activities. The Steering Group surveyed 643 occupational therapists with a work practice focus, obtained a response rate of 41% and identified 66 EIs.

An example of the KTE process in action

Following the identification of the OT EIs, the Steering Group planned an event to bring this new group together to better understand the challenges and priorities for research exchange and transfer. The steps related to the initial OT EI event are offered here to demonstrate the dynamic evolution of the network that emerged to mobilize evidence in this area of practice. The OT EI inaugural event involved a presentation of the IWH systematic review on effective workplace-based return-to-work (RTW) interventions (Franche et al., 2005, MacEachen et al., 2006) and the subsequent Seven Principles for Successful Return to Work (IWH, 2005). Through dialogue and reflection the occupational therapists decided that the seven principles were relevant and useful to their work in workplaces. They identified the need to create a tool that would help them engage employers about implementing the principles.

From here a number of efforts began in parallel including: the transfer of evidence to an occupational therapy specific practice tool, the evaluation of outcomes and the feedback of occupational therapy research priorities. A subgroup of OT EIs worked with a member of the Steering Group and IWH to develop an evidence-informed practice resource tool. The team met throughout 2007 and then launched the booklet titled "Working Together" to the entire OT EI network. Information on this tool will be located on the OSOT website and the IWH website.

The OSOT Work Practice Team developed an educational resource support guide to enhance the usefulness and movement of Working Together to clinicians in the field. This occupational therapy specific guide will be available on the OSOT website. It is composed of the "Working Together" booklet with embedded links to relevant occupational therapy resources.

The second parallel effort lead by the OT EI Steering Group was the development of a framework for evaluation of the network efforts and outcomes.

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Information gleaned through the evaluation of the network will be used to establish the benefits of this process. The evaluation of the KTE process is essential to work practice, but will also be of interest to other areas of practice. It is our goal that the lessons learned through evaluating our outcomes will serve to generate innovations in KTE in other areas of Canadian occupational therapy practice.

In the future, other opportunities to move new knowledge into practice will be the ongoing responsibility of the Steering Group. Regular communication and planning of events for the OT EI network development are ongoing. For example, the Steering Group is considering using the provincial conference as a time to hold events for OT EIs. Webinars are also being used to include those OT EIs for whom distance or time restrictions impedes participation.

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SENSE OF DOING

Column Editors: Helene J. Polatajko and Jane A. Davis

Capturing occupational knowledge: Enabling powerful outcomes for our clients

CSOS Canadian Society of Occupational Scientists

Jane A. Davis and Helene J. Polatajko

As the editors of the Sense of Doing column we are particularly pleased that this issue of Occupational Therapy Now is focused on knowledge: its exchange and its translation, as that is the raison d'être of this column. Focused on people's daily 'doings' from the outset this column has offered occupational therapists a place to exchange knowledge about human occupation and practices which translate that knowledge into better outcomes for clients. We take this opportunity to present an overview of four major knowledge perspectives that the 26 articles published in this column over the past five years have afforded you. First, by sharing the personal stories of colleagues, we highlight the perspective that reflection on our own occupational experiences can offer an important source for understanding occupation. Second, by sharing the occupational stories of clients, we highlight the perspective that our clients too are, first and foremost, occupational beings. Third, by sharing colleagues' reflections on the occupational nature of their clients, we highlight how such a perspective can result in important shifts to occupation-based practice. Finally, by sharing examples of occupation-based practice, we highlight the perspective that an occupational focus can produce significantly better outcomes for our clients.

I Personal reflection as sources for understanding occupation

One focus of the Sense of Doing column has been to illustrate the occupational stories of occupational therapists. In these stories colleagues have described their occupational challenges and shared their reflections

on meeting and overcoming these challenges. Linda Del Fabro Smith (2005) wrote about her motherhood experiences and how she struggled with defining her role as mother. She made sense of her doing by invoking the metaphor of conductor with the family as orchestra; her role was to decide which orchestral sections were important at which time. She challenged all mothers, with and without disabilities, to come to peace with the nature of their occupational lives, allowing their lives to change as needed, just as musical pieces require orchestras to change. Heather Moyse (2006) conveyed a different occupational challenge: not one that was imposed upon her, but one she chose herself, by setting an Olympic medal as a personal goal. She wrote about the constant challenge of having to perform better and better with each successive race, as her bobsleigh team moved closer and closer to the Olympic medal. She shared how she was able to constantly refocus on this ever-increasing challenge. Colleen McCain (2004) found herself challenged by healthcare system barriers making it difficult for her to be the client-centred, occupation-based therapist she wanted to be. She spoke of how she rediscovered meaning in her choice to be an occupational therapist by speaking with others who had faced challenges in their practice. She realized that regardless of the occupational challenges she will face, she would have successes and opportunities to enable her clients to strive towards their occupational potential.

Together these stories highlight that everyone, not only our clients, faces occupational challenges. All manner of life situations present occupational challenges and there are numerous ways of coping!

II Our clients' occupational stories

Similar to our colleagues, our clients have occupational stories. As therapists we need to know how to 'hear' our clients' stories to understand how to enable them. Bice Amoroso and her students (2004) shared with us how observation can be a key to understanding the occupational interests of clients with significant cognitive and mental health challenges. Noticing a client's love of books Bice and her students engaged Tom in assembling a book of his interests, thereby expressing his occupational interests to others. When Tom presented his book at a team meeting, the attendees, for the first time, saw him as having accomplishments and potential. Katie Lee and Anne Fourt (2005) engaged their client, Claire, in a discussion about her occupational life history to explore the meaning she attached to her previous employment. Through a process of occupational reflection, Claire came to realize the meanings she attributed to mothering, maintaining a functional home, and engaging in creative occupations. This enabled Claire to reconstruct her occupational life and attain a steadier occupational trajectory by balancing the occupations which held the most meaning and purpose for her. Marie Gage (2003) told the story of Jennifer and Wilbur and highlighted the interdependence of their occupational lives. Following a massive stroke, Jennifer, 72, required a lot of support to meet her daily occupational needs and Wilbur, 75, insisted on providing the support. They had a very close and caring relationship; Wilbur needed to care for Jennifer and the therapist needed to enable Wilbur to do so to ensure both his well-being and that of his wife.

Together these stories point to the importance of being open to the rich occupational lives of our clients. Observation and conversation can be valuable tools in uncovering knowledge about occupation, the purpose and meaning of which is unique to each of our clients.

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III Understanding the occupational nature of our clients as a source for a shift to occupation-based practice

Marie Gage (2003) changed her approach to Jennifer because she wanted to accommodate the occupational interdependency of her client and spouse. She realized that "being independent in self-care is not always the goal ... Enabling people to engage in occupations that are personally meaningful is the true focus of the work of occupational therapy" (p. 37). By sharing this story Marie showed us how an occupational focus can change our practice. Jill Stier (2004) had a similar message. She described how considering the occupational needs of Dr. Ames, a dentist, and enabling her to perform the tasks required in her dental practice and in mothering her infant, changed her approach to splinting. Instead of constructing a typical wrist thumb splint for a painful joint, Jill designed two different functional splints to enable performance. If the focus had only been on relieving pain and stabilizing the injury, the splint would have become a barrier to Dr. Ames occupation.

Through exploring the occupational story of her mother during her final years of life, Cynthia Perlman (2004) discovered that engagement in occupations, even the simplest ones, can lead to self-actualization and the development of one's capacity for life and living, as well as for illness and life completion. Cynthia wrote about the power of choice making and control in everyday activities as a way of promoting health. By reflecting on the occupational nature of a native woman in her early 20s, Kathy Hatchard (2005) was able to discover the importance of 'sense of place' to occupational performance (p. 7). Knowledge of her client's occupational life allowed Kathy to realize when her client had achieved a fit between her occupational needs and environmental resources, enabling her client to find her way and proceed on her own.

Together these clinical stories show us how an occupational perspective can produce practice changes. Some stories highlighted small shifts in the way therapists did things while others offered insights into how changes are made in overall practice to fit with the new knowledge gained from our clients.

IV Occupation-based practice as a source of success

Ann Zilberbrant and Angela Mandich (2005) showed us how occupation-based practice enabled Roger, 10, not only to reach his goal of learning to ride his bike but also yielded numerous secondary gains such as new social opportunities. Similarly, Susan Yee (2007) illustrated the power of occupation through her work with Daphne, a backyard gardener, who gradually lost her ability to garden due to both physical and mental health issues. Working with Susan, Daphne found a way to re-engage in gardening by planning her garden design and directing others to do the heavier work. By accepting this occupational interdependence, Daphne regained a sense of control over her garden and home, and restored some of the occupational identity that she had lost due to her health issues.

On a student placement at St. George House, a home for individuals with mental health issues and intellectual disabilities, Melissa Heidebrecht and Melissa Monardo (2007) also experienced the power of an occupational approach. Through the formation of groups focused on active participation the residents developed a sense of purpose, enjoyment and structure for each day, established relationships with each other and appeared to form a sense of community and belonging. Through engaging in a group occupation, Maggie, who had previously remained isolated in her room, began to integrate better into the home, construct an occupational routine and establish relationships around a commonly enjoyed leisure occupation.

An occupation-based practice can have far reaching effects. As Marie Gage (2003) described, coordinating the occupational re-engagement of Jeffrey Pinney, a 55-year-old artist with a neurologically degenerative disease helped to alleviate his depression. Jill Stier and her father, Harold Smordin, (2008) wrote about how engaging in a group exercise program at a local gym led its members to achieve unexpected positive health outcomes that went well beyond the physical benefits of exercise.

Together these four perspectives show that knowledge about occupation can be gleaned from ourselves and our clients and that the translation of this occupational knowledge into our practice can transform it and enable powerful outcomes for our clients. To quote Marie Gage "When we enable our clients to do the occupations that bring meaning and purpose to their lives, ... we are 'giving them back their life' and bringing meaning to our own occupation" (Gage, 2003, p. 37).

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Facilitating knowledge transfer through the McMaster PLUS REHAB Project: Linking rehabilitation practitioners to new and relevant research findings

Mary Law, Joy MacDermid, Brenda Vrkljan and Jessica Telford

Evidence-based practice (EBP) can enhance health and is valued by clinicians. Rehabilitation practitioners in Canada have consistently reported that finding and evaluating relevant research information is one of the largest barriers to practicing EBP (McClusky, 2003). Novel push-out electronic knowledge translation (KT) strategies that deliver high quality information directly to the practice community have the potential to reduce this barrier and make EBP more accessible to the practicing clinician (Ho, Chockalingam, Best, & Walsh, 2003).

KT is a rapidly evolving field yet high-quality evidence on the most effective KT is lacking. In particular, Technology Enabled Knowledge Translation (TEKT), information and communication technology, is at the cutting edge of innovation in KT and requires more rigorous evaluation. Using technology as "a vehicle for KT may be extremely useful because it can:

- assist practitioners with access and uptake of information
- improve the uptake of research in policy making since it speeds up the knowledge transfer process
- facilitate the transfer of public data (e.g. national health surveys) to policy makers more quickly
- support communities of practice where groups share knowledge and information regarding a specific topic(s) of interest" (Law & Telford, 2007, p. 303).

There is no doubt that TEKT will be embedded in the future of clinical practice and it is therefore imperative that TEKT strategies be evaluated using a multidimensional evaluation framework.

A technology-enabled system for moving research knowledge into rehabilitation practice:

The McMaster PLUS Rehabilitation service (MacPLUS REHAB) is a customized, personalized, evidence-based, alerting and look-up service that is designed to maximize uptake of new knowledge. It is based on the physician version, called MacPLUS, implemented by McMaster's Health Information Research Unit (HIRU). Over the past decade, the HIRU has pioneered and perfected the development of resources for evidence-based clinical practice. These activities have included techniques for finding, assessing (for quality and content), organizing, summarizing, and disseminating best evidence as it is published in the medical literature (Haynes & Wilczynski, 2005). Using innovations in "push-out" and user-interface technology MacPLUS REHAB will deliver new and relevant research findings to rehabilitation practitioners.

The purpose of this project is to evaluate whether the availability of MacPLUS REHAB will result in more effective KT within rehabilitation practice across Canada and identify the barriers, mediators and facilitators that modulate this KT process.

How the MacPLUS REHAB project will work:

Practitioners will receive an online tutorial about using MacPLUS REHAB and will have access for a period of one year. The service will be offered free of charge to 1,000 practicing occupational therapists and physiotherapists in Canada. MacPLUS REHAB will provide the following services:

- a cumulative searchable database of quality-and relevance-rated rehabilitation publications and a web site that is continuously updated
- a customized user interface allowing identification of the rehabilitation interests of each user and matching those interests to the appropriate "virtual" subset of the accumulating database
- e-mail alerts about new evidence, tailored to the user's interest profile
- web links to product and client information for intervention
- stored search strategies for MEDLINE to supplement searches in the cumulated MacPLUS REHAB database when needed
- assistance for users to develop effective local information systems that match their needs precisely with the supply of current best evidence for clinical practice.

Through an individually linked interface, clinicians can log on to MacPLUS REHAB to register their practice profile. This profile would serve as a filter to the rehabilitation literature within MacPLUS REHAB.

The enhanced system would identify key, high quality articles of relevance.

MacPLUS REHAB differs from other information delivery services by specifically addressing the barriers that prevent the timely translation of research findings into patient benefit as it:

1) separates high quality information from literature less relevant to practice,
2) provides practitioner specific information,
3) integrates the delivery of health information, and includes appropriate links which highlight the cumulative nature of evidence, and,
4) addresses rehab practitioners' concerns that they lack skills and expertise to appraise new scientific papers.

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Work to date and how you can get involved:

The MacPLUS REHAB system has now been fully developed and the researchers are seeking funds to evaluate the design and its use by rehabilitation practitioners.

In the meantime, we have teamed up with McMaster University's HIRU to expand BMJupdates+ to include ratings of both relevance and interest by clinical occupational therapists, physical therapists and clinical practice leaders. BMJupdates+ is "a searchable database of the best evidence from the literature, pre-rated for methodological quality, and then rated for clinical relevance and interest by at least 3 members of a worldwide panel of practicing physicians, that sends the user e-mail alerts and searching access to literature matched to your clinical interests" (www.bmjupdates.com).

We are recruiting occupational therapists and physiotherapists as raters to assess the clinical relevance of high quality, hot-off-the-press studies in their own primary practice area. Feedback from rehabilitation raters has been very positive. If you would like to join us as a rater or just receive more information, please contact us at ptot@mcmaster.ca.

Conclusions:

This project will develop and evaluate the effect of MacPLUS REHAB, a push-out technology in improving the uptake and use of evidence-based knowledge in rehabilitation. The project builds on the innovations of MacPLUS to create a rehabilitation version to provide evidence tightly tailored to the interests of individual rehabilitation practitioners.

This project will also provide novel information on the barriers, mediators, and facilitators of TEKT that can be generalized across rehabilitation service providers. In addition, this project will contribute to our understanding of how rehabilitation practitioners manage and adapt to change in the professional environment to keep up with the innovations in their area.

The MacPLUS REHAB service will make EBP accessible to practitioners by individualizing search and alerts, providing a credibly rated and trustworthy system of relevant articles and saving many valuable search and evaluation hours.

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Implementing knowledge translation strategies: Integrating the Assessment of Motor and Process Skills into practice

Karla Moore and Norma Lewis

Translating knowledge from workshops and conferences into practice can be challenging, with barriers at the individual and systems levels. The purpose of this article is to share some strategies that we have used to incorporate the Assessment of Motor and Process Skills (AMPS) (www.ampsintl.com) into our clinical practices.

The AMPS is an occupational therapy specific, standardized observational evaluation tool used to evaluate the quality of clients motor and process skills when performing activities of daily living (ADL). The quality of clients' performance is rated by trained and calibrated occupational therapists according to the effort, efficiency, safety, and independence demonstrated when the clients perform 16 motor and 20 process skills. The AMPS can be used to assess the ADL abilities of clients over the developmental age of three years, regardless of gender, diagnosis or cultural background, as long as there is a concern about ADL performance.

Nine years ago, many of the occupational therapists in the Mental Health Division of Capital District Health Authority in Halifax, Nova Scotia completed the AMPS training and calibration process. We decided to become trained and calibrated AMPS raters in order to upgrade and have access to a valid and reliable evaluation tool. By incorporating the AMPS, our practices changed from focusing on clients' performance impairments to examining the strengths and limitations of clients' occupational performance. We believe this focus reflects the expertise of occupational therapists and more accurately reflects the 'real life' concerns of clients. As we began to 'own' this new identity, our ability to clearly articulate to team members the role that we can play in assessing and intervening with our clients improved greatly. However, before we reached this level of confidence we had to translate what we had learned during the AMPS training course into our practices.

"The advantage of having a number of us within the same workplace complete our AMPS training at the same time meant that we could more easily establish a peer support network. We shared our challenges, successes, and how we overcame obstacles as we shifted the focus of our assessments and ultimately, our practices."

We did this by using a number of strategies including: (a) developing a support network; (b) being persistent; (c) using support mechanisms of the AMPS Project International; (d) educating team members on the value of what we learn about clients when we complete an AMPS evaluation; and (e) taking advantage of continuing education opportunities. What follows is a discussion of each strategy in more detail.

The advantage of having a number of us within the same workplace complete our AMPS training at the same time meant that we could more easily establish a peer support network. We shared our challenges, successes, and how we overcame obstacles as we shifted the focus of our assessments and ultimately, our practices. We reviewed and critiqued each other's assessment reports to learn how to clearly document and interpret our clients' performance using the AMPS. Peer support meetings were organized where we had the opportunity to discuss our experiences in using the AMPS and learn from each others' experiences in a group format. The success of these peer support meetings lies in having one person assume responsibility for arranging the meetings, sending out reminder notices and chairing the meetings.

We highly value the AMPS as it enables us to generate valid and reliable estimates of clients' ADL performances that can be used to predict clients' needs for support and plan intervention. This value of the AMPS helped us to maintain our motivation and ability to persevere even when we encountered challenges, particularly when we first began to use the AMPS. We found the more routinely we used the AMPS and the more time we took to reflect on the findings, the more proficient we became in administering and interpreting the findings.

Another strategy that we have adopted has been to use available resources. During the AMPS training courses, occupational therapists become familiar with their AMPS manuals as sections of the manual are studied in detail. Our ongoing success in incorporating the AMPS into our practices is reflected

in the fact that we continue to refer to our 'dog-eared' AMPS administration manual for guidance despite using the AMPS for several years. The AMPS manuals have undergone several revisions and these revisions, in large measure, have been made to address the 'real life' challenges occupational therapists have described when using the AMPS. In our experience, reading the administration manual not only saves time, but reduces frustration.

Contact with the AMPS faculty and AMPS Project International staff has also been a valuable strategy that has enabled us to integrate this new tool into practice. At most AMPS training workshops, faculty members provide participants with their contact information. Some of our colleagues have contacted faculty who were able to answer questions about administering, scoring or interpreting AMPS evaluations. The website maintained by the AMPS Project International is also a source of useful information. The website includes a forum where occupational therapists can post questions that will be answered by the AMPS Project International and a reference list of AMPS articles that is regularly updated.

Over the years, we and other occupational therapists have given presentations to the multidisciplinary staff of the Mental Health Division to educate team members and managers on the value of the AMPS and thus earning their support for us to use the AMPS. For example, during a workshop that included presentations on Position Emission Tomography (PET) scans and neuropsychological tests, two occupational therapists presented a case study in which the AMPS was used to measure occupational performance. They were able to highlight that the AMPS can generate valid and reliable measures of occupational performance.

Taking advantage of continuing education opportunities at local and national conferences where practice implications and research related to the AMPS are shared has also been beneficial. We benefited greatly from attending the 2008 International AMPS Symposium: Measuring, Planning and Implementing Occupation-based Programs and as well as the pre-conference workshop Knowledge Translation which was held in Halifax this summer. The symposium included presentations related to new evidence that supports the validity, reliability, and utility of the AMPS and the School AMPS, as well as the development of other assessments such as the Evaluation of Social Interaction Skills.

While we have shared our perspectives as occupational therapists working in a mental health setting, we believe the strategies that we have used to integrate the AMPS into our practices are applicable to integrating it into other practice settings, and to integrating other evaluation tools or intervention techniques into practice.

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Workplace mental health: Developing an employer resource through partnerships in knowledge translation

Sandra Moll and Erika Pond Clements

In the fall of 2006, the authors were hired by the Canadian Psychiatric Research Foundation (CPRF) to coordinate their knowledge translation (KT) project; "When Something's Wrong -Strategies for the Workplace". The goal of the project was to produce an evidence-based handbook for employers on how to address mental illness in the workplace. At the time we were hired for the project, Sandra was a doctoral candidate studying mental illness in the workplace, and Erika ran her own private practice with an emphasis on occupational mental health. As occupational therapists, we felt that we had the knowledge and skills regarding workplace mental health and partnership development that would be a good match for the project. Thus began our year-long adventure in KT! The purpose of this paper is to illustrate the ways in which we engaged in an active process of KT to produce an evidence-based handbook that is being utilized by employers across the country.

"This is a fine piece of work. ... It will make a very significant contribution to the growth and development of a knowledge base in the field."
Bill Wilkerson, Co-Founder and CEO, Global Business and Economic Roundtable on Addiction and Mental Health

CPRF is a national charitable organization which raises and distributes funds for psychiatric research and awareness in Canada. In order to facilitate effective KT and to create more awareness of the organization's work, CPRF has created a series of handbooks for the general public on how to identify, cope, and find help for those who may be experiencing a mental disorder. The first book in the series was designed for families/parents, the second for teachers, and the plan was to develop a third handbook for employers.

The purpose of the third handbook was to provide employers with evidence-based tools for learning about and managing employees who may be dealing with mental health problems in the workplace. The handbook would then be augmented through training workshops for employers. A workplace project committee, formed to oversee the project, was comprised of over 25 stakeholders including service providers, employers, and mental health consumers.

One of the fundamental principles guiding the project was a commitment to an interactive process of KT. According to the Canadian Institutes of Health Research (2004), KT refers to "the exchange, synthesis and ethically-sound application of knowledge - within a complex system of interactions among researchers and users - to accelerate the capture of benefits of research for Canadians..." Rather than a traditional approach whereby researchers transmit information to passive recipients, we incorporated employers and other potential stakeholders as active partners in all stages of issue identification, knowledge production and evaluation. Interactive strategies such as early stakeholder involvement increases the relevance of the information and likelihood that it will be adopted (Davis et al., 2003). Figure 1 illustrates the key stakeholders that were involved as partners in KT throughout the project.

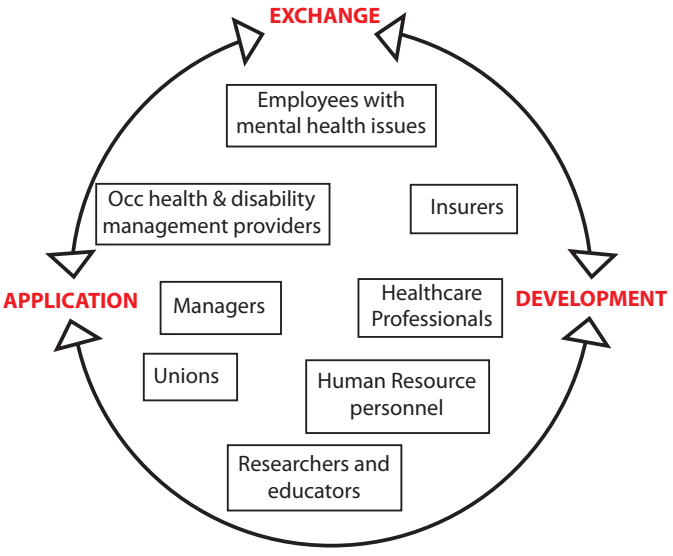

Figure 1 - Stakeholder Involvement

The process of developing the handbook unfolded in stages. Two student occupational therapists who participated in the project adapted the Integrated Model of Evidence Based Practice© (Dematteo & Law, 2005) as a way of conceptualizing the different stages in handbook development (see Figure 2).

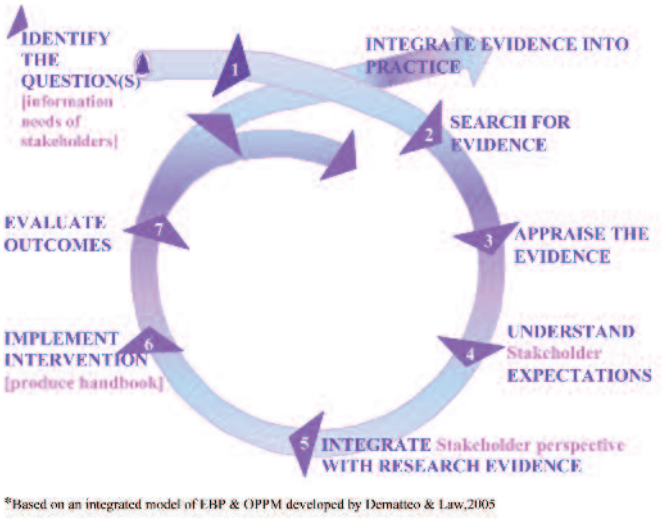

Figure 2 -Model of Handbook Development*

Step one involved identifying key issues or questions that needed to be addressed in the handbook. In the fall of 2006, a focus group meeting was held with over 70 stakeholders who had an interest in workplace mental health. Participants included a mix of representatives from human resource departments, occupational health, disability managers/EAP providers, managers or supervisors and consumers of mental health services. Businesses represented included municipal service providers (e.g. police, transit commission), health care providers (large & mid-sized hospitals as well as community based programs), the educational system (school boards and post-secondary institutions), and large and mid-sized retail and manufacturing businesses. Key issues or challenges identified by focus group participants included; stigma and skepticism regarding the legitimacy of mental health problems, lack of clarity regarding roles/responsibilities of employers versus employees, difficulty accessing and coordinating services, challenges with accommodation and return to work, and unsupportive, stressful work environments. Chapters in the handbook were therefore designed to reflect each of the identified knowledge gaps: Making the business case; Recognizing and addressing mental health problems; Accessing services; Managing disability leave and return to work; Providing workplace accommodations; Creating healthy workplaces; and, Signs, symptoms & interventions.

> ***"I got the handbook in the mail last night. It looks fantastic. It's very comprehensive and user friendly. Let's hope that companies pick it up and begin to use it. Well done!!"***
> Jocelyn Cowls, an occupational therapist from Ontario

Steps two and three of handbook development involved searching for and appraising evidence to address each of the identified issues. Sources of evidence included research (published studies), practice (expert opinion and experience), and policy (legislation and legal guidelines). Since research in the field is only starting to emerge, it was difficult to find high quality evidence regarding workers with mental health issues. Research conducted with other populations (e.g. workers with pain or musculoskeletal conditions) was therefore reviewed and appraised in terms of its relevance. In addition, input was sought from experts in the field who have addressed these issues in practice (e.g. disability managers, occupational psychiatrists, employees), and with researchers whose findings had not yet been published. Policy issues were also important to consider, particularly with respect to providing workplace accommodation. Labour lawyers were involved in development of the accommodation and return to work sections of the handbook, with references to federal/provincial/territorial human rights commissions and legislation. "Valid" knowledge therefore emerged from a variety of sources.

Steps four and five of the handbook development included understanding stakeholder expectations and integrating their perspective with research evidence. Initial drafts of each chapter were sent to at least one representative from each of the eight stakeholder groups for feedback. Revised drafts were then reviewed by members of the steering committee. Since committee members represented a range of stakeholders, meetings were often lively debates about the content of the handbook. When disagree-

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ment arose, all perspectives were considered in making revisions. Feedback and discussion was helpful in identifying how the information could be interpreted by others.

The sixth step in the process was handbook production. One of the key steps at this stage was to have the handbook reviewed by professional editors. After reviewing submissions from several editors, we opted for an editing team who had experience with publications aimed at our target market. Use of quotes, text boxes, colour and bullet points significantly added to the impact and readability of the final product.

The seventh and eighth steps are now underway. CPRF has posted a handbook evaluation on the website and end-users are invited to provide feedback on such areas as the quality, ease of use, and relevance of the information. Workshops that focus on integrating evidence into practice are currently in the process of being developed.

Key learning

One of the greatest strengths and challenges of this project was the collaborative process of knowledge exchange. We engaged in a dialogue with diverse stakeholders who had different perspectives, agendas, and even language for discussing issues. Communication challenges that we experienced were not unlike those in the field of workplace mental health.

Identifying and addressing areas of controversy and misunderstanding was critical to the relevance and acceptability of the final product. It should be noted, however, that handbooks are static end products, whereas knowledge is a "changing set of understandings shaped by those who both generate and use research" (Amstrong et al., 2006, p.385). The handbook is only one element of an overall process of KT; customized workshops are needed.

Overall, it was extremely exciting to walk into a project with funding and infrastructure in place, as well as a committed steering committee. We were able to bring an occupational therapy approach (addressing worker, workplace and work) to the table. We wanted to ensure that employers did not focus on diagnosis, but rather on collaborative problem solving and enabling function. With the support of a strong committee and executive director, we were able to pull together a product that has been well received by leaders across the country in workplace mental health.

Funding from sale of the handbook will be used to support psychiatric research in Canada. To order a copy of the handbook, "When Something's Wrong - Strategies for the Workplace", see www.cprf.ca.

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Data and information for advancing occupational therapy practice

Lori Lennox

The Canadian Institute for Health Information (CIHI) helps facilitate and develop new health care and health system knowledge by collecting information from various sources in Canada. Occupational therapists can use this knowledge in their practice as clinicians, managers and researchers.

National health care and health system information

There are several different ways that occupational therapists contribute to the collection of data that are sent to CIHI.

Clinical occupational therapists working in hospitals, rehabilitation centres, mental health facilities and home and continuing care organizations, in selected jurisdictions, all complete clinical assessment instruments as part of their assessment and treatment of clients. These data and information are sent to CIHI. CIHI uses the FIM™ instrument[1] and the Resident Assessment Instruments (RAI)[2] as part of their data collection efforts. These data collection efforts help provide information on the characteristics and demographics of clients along the continuum of health care at hospital, regional and national levels.

Clinical occupational therapists also collect financial and statistical workload data on the day-to-day operations of health service organizations. This information facilitates reporting regarding resource use, budget development and more informed management decisions. CIHI provides the standards for the collection of these data.

Regulatory bodies send data to CIHI to capture information on workforce trends, such as migration patterns, educational profiles, practice patterns, and the average age of occupational therapists.

There are also several occupational therapists that work at CIHI. They help with adding the clinical relevance and expertise to the collection of data, as well as the analysis and interpretation released in CIHI reports and publications.

Benefits of CIHI information for occupational therapists

Clinical occupational therapists can benefit from using standardized assessment instruments for clinical decision-making. For example, in team meetings, occupational therapists can discuss and compare the function scores of various clients and determine treatment planning based on these discussions. Clinical instruments and tools provide a standard system and language to discuss the client's function for the entire rehabilitation team. Occupational therapists may be interested to know that CIHI is the licensor for the FIM™ instrument in Canada. Occupational therapists that do not have access to the FIM™ instrument within their facilities can access it by contacting CIHI.

Occupational therapists that are in roles of managers and decision-makers can use CIHI organizational reports to evaluate and support rehabilitation program decision-making. CIHI organizational reports contain detailed information about the profile of clients and their functional outcomes (based on data collected using the FIM™ instrument) by hospital/rehabilitation unit. They also contain comparison data and information regarding peer hospitals/rehabilitation units and national averages. Occupational therapy managers can look at these reports to make decisions regarding the need for more rehabilitation beds, admission criteria, or even whether a pilot program has been improving client treatment. The Data in Action: Stroke Rehabilitation

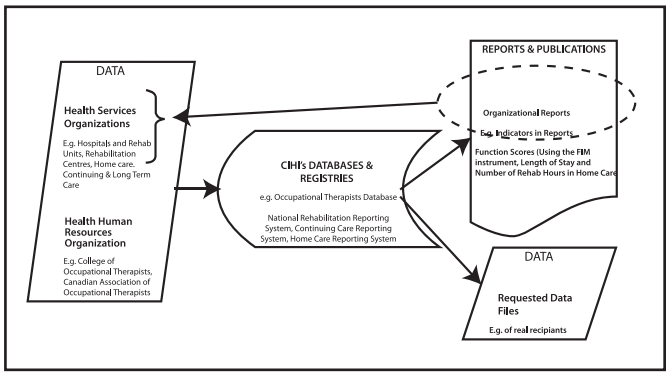

Figure 1: Transforming Data from the Front Line into Knowledge

[1]The FIM™ instrument referenced herein is the property of Uniform Data System for Medical Rehabilitation, a division of UB Foundation Activities Inc.

[2]© Copyright interRAI, 1997, 1999. Modified with permission for Canadian use under licence to the Canadian Institute for Health Information

story (below) provides a good example of CIHI data from organizational reports (combined with other sources) that has been used for improving client care.

Occupational therapists in other roles within the health care system, such as policy-makers and researchers, can request and use CIHI data. They might be interested in answering questions about occupational therapist migration patterns or workforce planning. Research-related questions that help form best practices and promote quality improvement, such as how functional outcomes are affected by enhanced or extended treatment, could also be answered using CIHI data.

CIHI public reports of interest to occupational therapists

- Inpatient Rehabilitation in Canada: provides information on the characteristics of clients in inpatient rehabilitation, including their average age, how long they stay and their functional outcomes. Go to www.cihi.ca/nrs.
- Workforce Trends of Occupational Therapists in Canada: provides information on the supply and distribution of occupational therapists working in Canada, including education trends, migration patterns and employment trends. Go to www.cihi.ca, click on data collection, then health human resources.
- Improving the Health of Canadians: Promoting Healthy Weights: features the environments in which we live, learn, work and play that make it easier - or harder - for Canadians to make choices that promote healthy weights. Go to www.cihi.ca/cphi.

Data in action

The Stroke Rehabilitation Project of Southeastern Ontario used CIHI data to come up with recommendations on how to improve community-based rehabilitation for stroke clients while using resources more effectively. The project found that intense and timely professional rehabilitation, including occupational therapy, played a critical part in stroke recovery after clients were discharged from inpatient rehabilitation. Clients recovered function faster in the first two months when they had shorter waits and more intense community rehabilitation, including occupational therapy. Care costs also decreased, as clients were 50% less likely to be readmitted to hospital and had shorter stays than those receiving regular community care. CIHI played a key part in providing data and data-collection tools for the 2004 project, which was funded by Ontario's Ministry of Health and Long-Term Care. The results inspired the Community Care Access Centre of Southeastern Ontario to consider continuing the new type of care for similar clients. These results and those of five similar projects across Ontario were also considered by a provincial panel led by the Heart and Stroke Foundation and the Ontario Stroke System in the development of a provincial set of standards for stroke rehabilitation services.

Advancing occupational therapy practice

In an environment with a range of treatment options, an aging population, consumers with heightened expectations, constrained resources and increasing complexity of the delivery of health care, occupational therapists and all health care providers are faced with the challenge of providing quality care. They are striving to provide 'the right care, at the right time, for the right person, in the right way'. Data and information can help occupational therapists in this process. The first step towards achieving this goal is being aware of the information available that can be applied into occupational therapy practice.

About the author –

Lori Lennox, B.Sc. OT Reg. (Ont.), MHA

Lori Lennox started working at CIHI after beginning her master's degree in health administration. Following several years working in acute care and the community, she was looking to make a broader impact on the health care system. She was drawn to CIHI because of its ability to provide valuable information to all types of health stakeholders to make decisions for improving our health system. Lori currently works in the strategy, policy and governance unit at CIHI.

Canadian Institute for Health Information (CIHI)

The Canadian Institute for Health Information (CIHI) is an independent, not-for-profit organization that provides essential data and analysis on Canada's health system and the health of Canadians. CIHI tracks data in many areas, thanks to information supplied by hospitals, regional health authorities, regulatory authorities, medical practitioners and governments. Other sources provide further data to help inform CIHI's in-depth analytic reports.

CIHI is responsible for many databases and registries that capture information across the continuum of health care services and on the health care system in Canada. This information supports research and analysis for planning and policy making purposes.

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Educational outreach and collaboration: An innovative role for occupational therapy

Denise De Laat, Cheryl Missiuna, Mary Egan, Robin Gaines, Jennifer McLean and Veronique Chiasson

With more emphasis being placed on primary health care, occupational therapists are increasingly challenged to demonstrate their valuable contributions to Family Health Care Teams. The potential for occupational therapy involvement in primary care settings is considerable. Realization of this potential requires that occupational therapists educate others about how our skills in evaluating aspects of the person, environment, occupation and understanding of occupational performance throughout the lifespan can contribute to the management of primary health issues. With this in mind, we describe a demonstration project in which a community-based occupational therapist provided educational outreach and collaboration to physicians in primary care, offering them the skills and knowledge of an occupational therapist that are necessary for early identification and successful management of children with Developmental Coordination Disorder (DCD).

DCD is a pervasive childhood condition that is often accompanied by other developmental disorders such as attention deficit/hyperactivity disorder or speech/language difficulties. Children with DCD have difficulty performing everyday motor tasks despite having at least average intellectual ability and no other diagnosable neurological disorder (American Psychiatric Association, 2000). DCD may lead to long-term negative consequences including academic failure, poor social relationships, emotional difficulties and diminished physical fitness and health. Evidence suggests that the motor skill difficulties associated with DCD often persist through adolescence and into adulthood (Missiuna, Gaines, Soucie & McLean, 2006).

Primary care physicians are well placed to both recognize and manage children with DCD (Hamilton, 2002). They have regular, ongoing contact with young children, and parents trust them as their primary resource for health care and referral to other professionals. Physicians are able to collect a detailed history and conduct the physical and neurological examinations needed to rule out other causes of motor coordination difficulties. However, many physicians are unfamiliar with DCD (Hamilton, 2002) and this presents a major barrier to identification and management of this chronic condition in primary care. Occupational therapists are in an excellent position to provide outreach education to primary care physicians to assist them in identifying these children through the occupational therapists' knowledge of DCD and related research and their understanding of the relationship between motor abilities and function.

While 18% of children in primary care practices have developmental conditions, many go unrecognized. Developmental Coordination Disorder is one of these conditions.

A demonstration project was conducted by a multidisciplinary research team in Ottawa, Ontario utilizing knowledge translation strategies and collaboration within primary care settings. In this project, occupational therapists:

1) Increased physicians' awareness and knowledge of the condition of DCD through the provision of both general and targeted personalized education;
2) Supported physicians in the identification and diagnosis of DCD through outreach education and collaboration in the assessment process;
3) Facilitated knowledge about appropriate community resources through joint consultation with parents following the diagnosis of DCD;
4) Provided evidence-based educational materials that supported families and increased the families' ability to manage and advocate for their child;
5) Provided a liaison with other services (e.g., special education, other allied health professionals) to support the implementation of management strategies in the community.

Education of primary care physicians began with a broad-based, 'grass roots' approach. Presentations were provided, not only to the target group of physicians, but also to other groups of health and educational professionals including allied health professionals and special educators. Physicians

recruited to the project received personalized occupational therapy office visits in which their learning priorities were clarified, and they were provided with selected educational materials (Missiuna, Gaines & Soucie, 2006). These materials, developed collaboratively with local physicians and representatives of the College of Family Physicians of Ontario, included:

- Binder: a DCD Physician Allied health Collaboration Kit (DCD PACK), providing succinct summaries of evidence-based information regarding DCD;
- Website: a website that included the same information as the binder, for physicians who preferred to access materials online (www.dcdpack.ca);
- DVD: a DVD that illustrated typically-developing children and children with DCD performing tasks that could be observed in a primary care office setting (e.g., climbing up on an examination table; catching and throwing a tennis ball; buttoning a shirt, tying shoelaces);
- Physician screening activities: laminated folders which outlined age-appropriate office screening activities for the physician; a tear-off pad with a short questionnaire for parents to complete; a laminated sheet of referral services in Ottawa;
- Waiting room advertisement: a colourful flyer ("Does your child have DCD?") was designed for parents outlining the key characteristics of children with DCD.

Following outreach education by the occupational therapist, physicians had the opportunity to apply their knowledge by reflecting on patients in their practice and identifying children whom they believed might have DCD. Physicians screened these children using their newly developed skills and resources and completed a brief interview with the family (Missiuna, Gaines & Soucie, 2006). If appropriate, physicians then referred children to the occupational therapist for assessment of motor skills. The

> *"It seems that all of these kids are in my practice, I just didn't identify them before"*
>
> Physician participant

occupational therapist completed standardized motor and functional assessments and a structured interview with the parents in order to gather information that would enable the physician to confirm or refute the potential diagnosis of DCD (Missiuna, Pollock, et al., 2008). The occupational therapist communicated these results back to the physician in a way that met his/her needs (e.g., brief, focused report; review of clinical observations; discussion of impact on function).

The physician and the occupational therapist met with the family to communicate the assessment results, and, if warranted, the physician provided the diagnosis of DCD. The physician and occupational therapist provided educational materials to the family to help them understand and improve management of the daily challenges. Educational materials included a parent booklet explaining DCD, flyers developed for health promotion and prevention of secondary disability and flyers for members of the community such as teachers and sports coaches (available at www.canchild.ca). Finally, where necessary, the occupational therapist assisted the family to advocate for accommodations and resources at school and assisted the parents to obtain further services.

The specific results of this study are reported elsewhere (Gaines, Missiuna, Egan and McLean, 2008). The occupational therapist's role as outreach educator and consultant within primary health care settings was a successful innovation in a number of ways:

- Quality care was provided for children with DCD in a timely and cost effective manner;
- Occupational therapy involvement facilitated self-management of this chronic condition by families and potentially prevented the development of secondary problems;
- Coordinated access was provided to appropriate community services;
- Ripple effects were evident in the education system and the community at large.

An occupational therapist functioning within

this type of innovative role must bring several skills to the position to ensure the successful knowledge transfer to physicians and other primary care providers. Access to physicians was difficult but several strategies secured the collaborative partnerships such as:

- Repecting the physician's limitations through questions like "what do you need to know?" and "how much time do you have?"
- Responding quickly to physician needs, whether that meant prompt scheduling of education sessions or meeting with families who had concerns.
- Being available for further consultation, upon physician request.
- Being aware of communities of practice in which physicians network and offering to meet the needs identified by these groups (e.g., breakfast discussions, evening journal clubs).

The information that was being shared in this project about children with DCD and about the body of knowledge that occupational therapists bring to primary care settings was also enhanced by:

- Educating frontline office, nursing and administrative staff about the characteristics of these children. As gatekeepers of the practice, they are able to cue physicans about observations they have made in the waiting room when children struggle to get their coat off or lose their balance stepping onto the weighing scale.
- Displaying confidence in the contribution that can be made through our expertise in knowledge of occupation and its role in disease prevention and promotion of wellbeing in children.

Challenges encountered in this project included the considerable variation among physcians and their willingness to embrace the transfer of knowledge: some demonstrated minimal interest, while others were keen to embrace the evidence. Similar to practice in homecare, the community outreach occupational therapist was required to travel to multiple settings. Finally, while it was clear from the study results that occupational therapists have a breadth of knowledge to impart to primary care providers, the process of policy change regarding rehabilitation providers in primary care is moving slowly.

The role of the occupational therapist as an outreach educator and consultant within primary care worked extremely well for children with a common developmental health condition such as DCD. This type of model may be applicable to primary care with other individuals (O'Brien et al., 2007), particularly those who have chronic conditions that affect occupation and occupational development.

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Up and running: Clinical Competency Program facilitates learning

Sacha Arsenault, John Cobb and Deirdre Lee

Today's overburdened health care system requires therapists to be up-and-running quickly, independently and safely. However, scant resources of time and current, easy-to-access information makes meeting the dynamic and varied learning needs of occupational therapists a challenge. Adding to this, the College of Occupational Therapists of BC (COTBC) has brought into clear focus the responsibility to demonstrate the provision of "safe, competent and ethical care" as outlined in their Code of Ethics (2006, p. 3). To facilitate orientation of new staff and skills-consolidation of senior staff, the occupational therapists of the Acute Neuroscience and Spine Programs conceived and developed an innovative systematic approach to competency based learning at Vancouver General Hospital (VGH) - the Clinical Competency Program (CCP).

This achievement is noteworthy for several reasons. It was developed by a team of occupational therapists to resolve a collective, clinical dilemma. Its universal design makes it suitable for other clinical settings and to other professional groups. It has the potential to reduce time intensive, one-to-one teaching. Importantly, because the content can be used repeatedly, the cost of development compares favourably to the high cost of traditional methods such as one-to-one teaching.

Concept development

Three senior occupational therapists, based on prior experience in creating education materials, developed the concept and format of the CCP; a modular, easy-to-access, user-friendly education program based on a combination of self-directed and collaborative learning activities set on a foundation of best practices. As Miller (1987) states, "the use of self-instruction materials in staff development settings is gaining increased acceptance as educators look for viable, cost-effective options for their staff to improve clinical competence" (p. 73).

Intervention provided in each clinical area (i.e. Neurology/Neurosciences, Intensive Care, Spinal Injury, and Stroke) has an associated module. Each module includes the information necessary to begin working quickly, independently and safely. Additionally, references to additional resources (e.g. Power Point presentations, on-line resources, CDs & DVDs, texts, etc.) are included. A modular format was chosen so therapists may quickly "pick and choose" the clinical information needed. Also, this format facilitates the addition or removal of clinical content to match expansion of occupational therapy services, changes in best practices, and trends in service provision.

Format and content criteria were determined to guide module development. Each module is: accessible, quickly and effortlessly available; flexible, meeting the needs of both new and experienced therapists; ordered, simple and direct in organization and navigation; consistent, easily recognized and understood in terms of format; dynamic, easily updated with new information; sustainable, maintained without undue burden. In addition, the clinical content is: focused, including only "key information" and not an exhaustive listing of all possible types and approaches to intervention; inclusive, contains information specific to the patient population and to core occupational therapy practice; valid, based on best occupational therapy practice, consistent with VGH Patient Care Guidelines (2008) and reflecting the COTBC Essential Competencies of Practice for Occupational Therapists in Canada.

Each module follows a four-part organizational format: 1) title page, which includes the module name and a brief description of the focus, content, and area of applicability, 2) clinical practice guideline, which includes a description, Site & Unit applicability, delegated task, background information, standard of care, Priority Intervention Criteria ranking, documentation standards, Preparation (independent and collaborative learning activities), associated guidelines/forms/education materials, references to additional resources, Unit & date of origin, 3) clinical content, which includes general background information, specific guidelines or treatment protocols, patient health educational materials, standard assessment forms, and 4) case study, which includes information to permit reflection and identification of additional learning needs.

Human resources

Support from administrators was requested and one full-time position was approved to provide supernumerary coverage for three months. To ensure ongoing support, administrators received monthly progress

reports including expected timelines, completion rates, and successes as well as unexpected challenges. With continued interested and encouragement of administrators, the timeline was increased from three to six months and the scope of the project, discovered to be much greater than first anticipated, was limited to the orientation needs of new staff.

Module development

Consultation with all occupational therapists of the Acute Neuroscience and Spine Programs began the next development phase. Two activities were undertaken: investigation of the therapists' learning styles and evaluation of the care needs of the patient populations. First, using group discussion, the team members explored their individual learning styles as well as their education paths. Based on their own experiences, members recognized that a combination of self-directed (i.e. independent learning via case studies, online learning, etc.) and collaborative learning (i.e. clinical time with a mentor) is a practical method to achieve milestones in clinical competencies. Such approaches to learning and competency development are supported by other findings (Morris et al., 2007). Second, the examination of current Occupational Therapy Plans of Care yielded a validated list of patient interventions for each clinical area. These findings further enhanced CCP evolution whereupon the team established 21 CCP modules (see Table One).

Table One: CCP modules

1. Activities of Daily Living - Spine
2. Activities of Daily Living - Neuro/Stroke
3. Arm and Hand Rehabilitation - Spine/ICU
4. Background Information - Spine
5. Background Information - Neuro/Stroke/ICU
6. Casting - Neuro/Stroke/ICU
7. Cognition - Spine/Neuro/Stroke/ICU
8. Discharge Planning - Spine
9. Discharge Planning - Neuro/Stroke
10. Dysphagia - Spine/Neuro/Stroke/ICU
11. Education (Patient and Family) - Spine/ICU
12. Education (Patient and Family) - Neuro/Stroke
13. Environmental Access - Spine/Neuro/ICU
14. Mobility - Spine
15. Orthosis Management - Spine/Neuro/Stroke/ICU
16. Perception - Spine/Neuro/Stroke/ICU
17. Physical Neurorehabilitation - Neuro/Stroke
18. Seating - Spine/ICU
19. Seating - Neuro/Stroke
20. Supportive or Functional Splinting - Spine/Neuro/Stroke/ICU
21. Vision - Neuro/Stroke

Existing education materials were evaluated to determine whether or not they reflected current, best practice. Expert consultation, literature review (including library and on-line searches), and comparison to other standards of practice (i.e. COTBC, VGH, other health care centres within the Vancouver Coastal Health Authority) were utilized and changes were made as indicated. Certain information was maintained or revised, while other information was newly created to fill the modules with content. Content development is complete for certain modules and ongoing for others.

Looking ahead

Content development related to experienced therapist skills-consolidation is pending. Currently, modules are a combination of paper-based resources and electronic files; a fully on-line version of the CCP is under consideration. As identified by Walsh and Farrow (2007), "online learning is one way in which clinicians can learn new knowledge and problem-solving skills in today's changing healthcare environment" (p. 71). A process to measure CCP effectiveness will be developed. A poster presentation will be created to present the CCP to clinical teams and at local and national conferences.

Successes

The CCP represents a team success in which all Acute Neuroscience and Spine Program occupational therapists contributed. Undertaking this project presented several challenges although two major benefits have been realised: (1) an updated and validated approach to clinical practice is realised via systematic review and (2) there exists a means of delivering the information to staff. The CCP is regularly used by junior and senior clinicians and by students with extremely positive feedback. Interest to learn more about the CCP, and possibly adopt it in part or in whole, has been expressed by occupational therapists in other provinces as well as by other disciplines. A workshop was developed and presented to occupational therapists and physiotherapists in another BC hospital based on the Casting - Neuro/Stroke/ICU module.

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Conclusions

To facilitate orientation of new staff and skills-consolidation of senior staff, we conceived and created a series of education modules based on a validated list of occupational therapy interventions. Flexible in terms of content, but constant in terms of overall design, each module reflects best practices. Learning activities associated with each module include a combination of self-directed and collaborative learning. Developing format, content, and organisation criteria, and considering learning needs and styles was invaluable to guiding development. Team participation, including management support, was integral to project completion and success. The CCP has proved relevant to our team and to others; the notion of a Clinical Competency Program is gaining momentum.

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Using knowledge from online education to tackle practice problems

Mary Clark, Deirdre Thornton, Kathy Burton, Alison Sisson, Sue Stanton and Joyce Tryssenaar

Requiring a master's degree for a promotion, feeling isolated, or needing new perspectives to re-ignite interest are just a few of the reasons why occupational therapists are pursuing master's degrees. Barriers of time and financial resources that previously prevented many from continuing their studies have now been overcome with programs designed for working occupational therapists. In 2002, the University of British Columbia (UBC) and McMaster University developed five online courses that could be used toward a Graduate Certificate in Rehabilitation or a Masters in Science (MSc) at McMaster or Master of Rehabilitation Science (MRSc) at UBC. Through these courses, learners share and build on each other's existing knowledge and transform new information into knowledge to solve today's practice problems.

"It's a commitment. You need to spend time everyday but with the assignments related to my work, it makes it easier to stay motivated," described Roslyn Livingstone, who graduated in May 2008 from the McMaster MSc program. Roslyn is one of five therapists at Children's Hospital/Sunny Hill Health Centre for Children in Vancouver who have participated in either the McMaster or UBC programs. These therapists have found working on their master's together has many benefits and attribute their success to their manager Lori's encouragement and support.

Lori Roxborough, Associate Director of the Therapy Department needed to find a way to increase her department's capacity to create and translate research. She felt it was imperative that the environment supported learning.

"Some staff feel ill-equipped to rapidly evaluate research and most effectively apply it to practice. The courses in these online programs allow them to build these skills," explained Lori.

Lori recognized that the program courses are very relevant to the workplace. She sees immediate results from the courses, which she believes are very 'in sync' with the therapists' clinical and leadership goals.

"We try to synchronize the course goals with department goals – project-based assignments make this easy to do," explained Lori. "Often therapists are able to complete their assignments as part of their paid work."

An example of this is the Measurement in Practice course, which covers the theory of measurement, and the critical review, selection, interpretation, and integration of measures into practice. "Therapists have chosen to study measurements we use at Sunny Hill, and they share their results at staff meetings. We make our decisions on the evidence they present."

Through the use of online technologies, learners can access and discuss theory and evidence, experiment with its application to practice, and return to discuss challenges, successes, and next steps. Their colleagues and instructors came from all parts of Canada and around the world and from a variety of health disciplines, which allows for an expansive network and exchange of interprofessional ideas previously only possible through attending conferences or correspondence.

Alison Sisson, an occupational therapist in the Yukon, describes how online learning is incorporated into her daily life:

"Initially I was concerned that I would miss classroom discussions, especially since discussions have been such an important and beneficial part of my learning in the past... what I've found is that online postings mean that the classroom is always there... I can take my time in responding to various ideas in the postings. I find I've gotten into the habit of coming home from work and reading the postings from the day. Over the course of dinner I might mull over the ideas, then log on later in the evening to respond. I think this process has really helped me to integrate my learning, which I hope in turn will make me a better clinician."

Evaluating Sources of Evidence is the first course taken by most learners. The skills and knowledge gained from this course enable learners to engage in further discovery in the areas of outcome measures, clinical reasoning, program development, and education for themselves, their clients, and their communities. After completing their core courses, learners embark on a major paper or action research project that addresses a current work problem, often with the endorsement of their employers. How they take their new knowledge back to the workplace varies dramatically.

For example, Deirdre Thornton, who had a baby part way through her MRSc studies, wondered: "How can I balance a demanding home life, continue to

impact the occupational therapy community, and advance my personal professional development?"

She found her solution during the data collection for her major project. While exploring professional development practices of clinicians in her workplace, a perceived shortage of advanced learning opportunities became evident. "Now equipped with a comprehensive array of clinical reasoning, program development, and education strategies, I am anticipating creating and pursuing a unique private practice opportunity that will enable and support occupational therapists to confidently transfer new learning into practice and deliver therapeutic services in a truly evidence-based manner."

BC-based occupational therapist Kathy Burton, who graduated this past May, took another approach. She obtained endorsement from her employer for her major project, a proposal for an art program, and actively involved people with mental health difficulties in the development of the project. Initially she was concerned about raising false hopes, but the end result was a stronger proposal that was accepted and funded.

As Kathy explained, "My workplace experienced significant benefits from the application of the knowledge I gained from the MRSc program. The individuals with mental health difficulties developed new skills, increased their self-esteem and connected with other people, all of which contribute to their recovery. Sharing their unique perspective increased the likelihood that the program would be effective in meeting the needs of the target audience. It was exciting and an honour to share the experiences with these individuals as they successfully developed a program and realized that they were able to make meaningful contributions to program development."

Just as everyone decides to pursue a master's degree for different reasons, we have also found that learners take their new knowledge and translate it in many different ways to improve their individual practices, their workplaces, and the lives of their clients. Sharing their successes online with colleagues broadens the transfer of knowledge across the country and around the world and has the potential to create lifelong connections for the learners.

About the authors –

At the time of writing **Deirdre Thornton** was an occupational therapist in the Recovery in Motion program at the Sunnybrook Health Sciences Centre and is now patiently awaiting her second child. **Kathy Burton** is a school occupational therapist with the Centre of Child Development, and **Alison Sisson** is a Policy & Standards Analyst in Continuing Care for the Government of Yukon. **Sue Stanton and Joyce Tryssenaar** are respective program coordinators at the UBC and McMaster online master programs, as well as instructors, along with **Mary Clark** who is also the special projects coordinator for the UBC online graduate programs.

Celebrating COTF's 25th Anniversary

CANADIAN OCCUPATIONAL THERAPY FOUNDATION

To fund scholarship and research

It is with great pride that I am given the honour of reflecting on the creation of COTF as we celebrate 25 years of achievement.

In 1982, I was working with our beloved professors Isabel Robinson and Thelma Cardwell on CAOT business and we discussed the need for a Foundation, a need we perceived to be critical to our development as a profession. We worked assiduously to apply for charitable status and in May 1983, we received our letters patent and the COTF was born.

It was an exciting and bold initiative and we were passionate about the need to raise funds for scientific and educational activities.

As I reflected on this time I came across an article I wrote in 1984 for the CAOT journal – Occupational Therapy Today: A Changing Profile. The following are excerpts.

"A history of diffidence and low confidence has marked the development of occupational therapy to date. A poor understanding of our role in health care by other professionals and the public has led to reticence and under valuation as a health resource. The greatest challenge to occupational therapists lies in our ability to communicate what we do and how our services will benefit people, their families and society.

Occupational therapists must take up positions of leadership. By being involved in the process of designing and implementing models of service delivery, we will be taking greater responsibility for defining our service potential in order to compete and survive in times of shrinking health dollars. Waiting for other health professionals to prescribe the needs for our service will leave us in a subordinate position where many of the roles we should perform will be assigned to others or not done at all.

In order to strengthen the profession, high-quality graduate programs are crucial. Scientific validation of our work is the only way to raise our professional image. Improved education in research, health care policy formulation and administration will help improve the inadequacies confronting us today."

With funds from CAOT for start up and support from individuals, agencies and all provincial OT organizations, COTF was launched. Originally driven by volunteers alone we hired our first part time executive coordinator, Helen Goldlist, in 1984. In that year COTF offered the first awards to Canadian occupational therapists for graduate education and research. Today we can look back and boast about a rich research program and a highly professional staff – a story of success.

I was the Executive Director of COTA at the time, and I could feel the potential of our great profession and the untapped contribution we could make. I knew that unless we raised the bar, we would continue to be marginalized. We were passive and politically unsophisticated for too long. We had been remiss in using political strategies for our professional purposes and it was essential that we make our abilities known to other professionals, business and politicians.

Well, here we are today, a strong force in the health and social service system and respected professionals in high demand. We did it!

As I look back, I am continuously grateful for my education as an occupational therapist and the doors it has opened. Regardless of my position in the community, I am first and foremost an occupational therapist, a designation I wear with much pride.

Please join me as we salute the first 25 years of COTF and the tremendous success we have achieved. We have come a long way.

Karen Goldenberg

On May 17, 1983, the Canadian Occupational Therapy Foundation became a reality. The first Board of Governors consisted of three prominent occupational therapists: Karen Goldenberg, President; Dr. Thelma Cardwell, Vice-President; and Dr. Isobel Robinson, Secretary/Treasurer.

Karen Goldenberg continues to be a great supporter of COTF. An award called the Karen Goldenberg Volunteer Award was also created in her name to recognize the tremendous dedication that Karen has exhibited towards the Foundation.