The Issue Is... 

From Periphery to Player: Strategically Positioning Occupational Therapy Within the Knowledge Translation Landscape

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Knowledge translation has emerged as a critical force across health research, funding, policy, and practice. Occupational therapy finds itself on the periphery of this emerging field, but opportunities specific to occupational therapy systems can facilitate a shift in which the profession develops its role as a key player. As occupational therapy increasingly recognizes the essential role of knowledge translation in health care, strategic action to create knowledge translator roles, technology, resources, opportunities, and communities of practice will be needed to align occupational therapy academic and health care systems with knowledge translation imperatives that increasingly shape the health care landscape.


The interplay between knowledge and its implementation is complex. New knowledge is often not widely implemented in health care systems and does not on its own result in an impact on health (Canadian Institutes of Health Research, 2009). The ways in which research is planned, conducted, and communicated may limit applicability (Sudsawad, 2005), and all too many valuable research findings lie unused, denying the benefit to those the research was intended to help and perpetuating an unconscionable waste of time and money.

With research findings inconsistently making their way into practice and a growing requirement to provide accountable, evidence-informed care, the drive to reduce the gap between knowledge and action has taken on momentum within and outside of the occupational therapy profession. Internationally, researchers, practitioners, government policymakers, and health care administrators are becoming increasingly aware of this gap (Baumbusch et al., 2008; Dopson, 2007; Mitchell, Pirkis, Hall, & Haas, 2009). *Knowledge translation*, defined as “a dynamic and iterative process that includes the synthesis, dissemination, exchange and ethically sound application of knowledge to improve health, provide more effective health services and products and strengthen the healthcare system” (Straus, Tetroe, & Graham, 2009, p. 4), has emerged as a promising mechanism to bridge the gap, signaling a move from viewing knowledge as a product toward understanding knowledge generation as a collaborative process (Dickinson, 2005). As a global agenda on knowledge translation evolves (Graham & Tetroe, 2007), researchers are being called upon to invest effort in communicating their results outside of their labs in ways that are responsive to practitioner needs; meanwhile, health care organizations...
are being expected to be more accountable in their use of evidence in practice and policymaking (Baumbusch et al., 2008).

With occupational therapy’s growing influence across health care, the profession has a mounting imperative to participate in knowledge translation as it looks to effectively position itself as an active partner within competitive health, education, and social sectors. In this article, we describe knowledge translation’s potential impact on health care systems and explore challenges and opportunities for development within the academic and health care systems in which occupational therapy operates.

Knowledge Translation and Health Care Systems: A Paradigm Shift

Knowledge translation represents a paradigm shift in the research world (Hedges, 2007). Dozens of frameworks and nuanced terms have emerged to describe various aspects of the knowledge translation process (Graham et al., 2006). Diffusion of knowledge (promoting awareness by making information available), dissemination (focused distribution aimed at increasing awareness and changing attitudes), and implementation (actively creating a behavior change) are key knowledge transfer activities that support knowledge translation (Lomas, 1993, as cited in Johnson, 2005), but they embrace a linear model that lacks attention to the possibility of shaping the research itself. Although it is not uncommon for practitioners to be consulted as research informants or to be active in vetting new tools, this level of involvement is fundamentally different from being involved “as part of the critical dialogue that shapes inquiry” (Kielhofner, 2005a, p. 236). An active, iterative approach that engages stakeholders and specifically considers context is required, made possible by a more integrated knowledge translation process (Tetroe, 2007).

Building on the evidence-based practice movement, which focuses on the use of knowledge, knowledge translation offers a way to conceptualize how knowledge can be both generated and put into practice within the practical realities of organizational and political systems. With competition for diminishing research funds increasing, it becomes paramount that publicly funded health care integrate knowledge translation into its very method (Martin-Matthews, 2009; Mitchell et al., 2009; Reynolds, 2009). The language associated with granting agencies has been dramatically transformed; for example, in Canada in 1998 applicants could apply for “research grants, scholarships and fellowships for advanced research and graduate students,” but in 2008 applicants needed to consider how to “partner with public and private stakeholders to ensure that practical solutions are found” (Department of Finance Canada, 2008, as cited in Kitson & Bisby, 2008, p. 6).

At a more foundational level, knowledge translation is reshaping the very way in which people understand health care systems. A global shift has occurred in the relationship between society and science; science is now broadly considered to be a commodity rather than the property of a field unrelated to the public good (Mitchell et al., 2009), resulting in expectations for translating new knowledge into health care, schools, private organizations, or other spheres in the public domain (Kitson & Bisby, 2008). Moreover, the nature of the health care system has been traditionally conceptualized as a machine that operates in a linear fashion. Within this machine perspective, research is produced and naturally flows out into the end user arena, where it is implemented. Knowledge translation eschews this view, advancing instead the notion that the health system is “a complex, interactive, organic entity where experimentation, experiential learning and reflection are central to creating a culture of innovation, improvement and consequently effectiveness” (Kitson, 2009, p. 218). With such significant shifts in the knowledge–health care system paradigm, specific professions will need to consider how the changes associated with knowledge translation affect their systems and whether those systems are aligned with and positioned to respond to and benefit from those realities.

Knowledge Translation and Occupational Therapy Systems

The nature of occupational therapy research evidence and knowledge translation models creates particular areas of challenge for occupational therapy. Occupational therapists struggle to find relevant research that reflects a practical, occupation-based focus and attends to the range of their practice settings, the complex occupational performance issues that different client groups may experience, and clients’ markedly disparate life circumstances. Quantitative data generated from research in closed conditions control for contextual factors (Green, 2006) and have limited applicability in the face of complex and unique clients and occupation-related problems (Tickle-Degnen & Bedell, 2003). The available evidence may relate only indirectly to a particular practice situation (Lencucha, Kothari, & Rouse, 2007), may be difficult to apply to practice (Polatajko & Craik, 2006), or, as a function of the profession’s small size, may be restrictive in quantity and diversity (Bhattacharyya, Reeves, & Zwarenstein, 2009). Researchers “express concern that practice lags behind scholarship and clinicians bemoan the irrelevance of theory and research to their everyday work” (Kielhofner, 2005b, p. 7). This concern is not surprising.
because, as with other professions, knowledge producers and users are often unfamiliar with one another (Jacobson, Butterill, & Goering, 2003), and with their different administrations, distinct mandates, funding structures, and resources, coupling the two is not easy.

Despite the emphasis on evidence-based practice, it has not been consistently embraced in health care systems; existing practices often rely on such things as tradition, convenience, and practitioner preference, which offer no particular assurance of improving client outcomes (Grol & Grimshaw, 2003; Hammell, 2009). Occupational therapists are entrenched in particular practice patterns (Cramm, 2011) and constrained to carry on with the status quo, which does not seem to require the same rigorous scrutiny as does introducing something new. Occupational therapists may need to move away from what Corcoran (2006, p. 127) termed the “decapitated” occupational therapist who treats with his or her heart, detached from the “logic and scholarship of occupational therapy.” Indeed, when occupational therapists do not systematically apply knowledge, practice quality lowers and clients become vulnerable to their therapists’ variable expertise.

Another pressing concern is the extent to which occupational therapists borrow evidence from other professions. As Zwarenstein and Reeves (2006) highlighted, “The prevailing practice of health care assumes that each profession has its well-defined area of hegemony and that boundaries between these roles are clear and communication and collaboration across them is successful” (p. 47). Although a body of evidence is shared to some extent across professions, occupational therapists need a clear body of well-supported evidence from their own field. Without it, occupational therapists will be limited in their capacity to filter this knowledge through an occupation-focused lens, to communicate this occupational perspective to other professions, and ultimately to contribute distinct evidence-based practice knowledge within an interdisciplinary context.

The need to borrow from other professions is also seen in the area of knowledge translation. With no knowledge translation models developed within occupational therapy, Metzler and Metz (2010) proposed a refinement to the widely cited Canadian knowledge translation conceptual framework, Knowledge To Action (KTA; Graham et al., 2006), that would increase its relevance to occupational therapists working with clients. The KTA framework divides the processes of knowledge creation and action, but the two may take place sequentially or simultaneously. The knowledge creation process, they suggested, incorporates not only research-derived knowledge but also experiential knowledge. This process is represented as a funnel, wherein knowledge becomes more refined, resulting in useful knowledge products. The action cycle, based on planned-action theories, involves identifying a problem, reviewing research, adapting the findings to the local context, assessing potential barriers, implementing necessary changes, and monitoring and evaluating ongoing use. To create knowledge that will be relevant to its intended user group, this iterative approach involves collaboration at the outset of knowledge generation that continues throughout the process (Reynolds, 2009).

Through their revision, Metzler and Metz (2010) tailored the KTA to reflect occupational therapy priorities, experiences, values, and language. They highlighted occupational therapy’s client-centered approach, recognizing the value of not only research knowledge but also the knowledge of the therapist and the client. However, fundamental issues arise when using a framework such as the KTA in occupational therapy that need to be considered in greater depth. For example, the interpretation of knowledge within the KTA cycle, on which the entire knowledge creation–action cycle hinges, is clearly rooted in medical and quantitative research traditions. Graham et al. (2006) referred to the use of “information” and “relevant knowledge” (p. 18), but their descriptions of knowledge synthesis unequivocally emphasized the use of empirically derived “scientific research” (p. 16) and systematic reviews of research knowledge, which prioritize methodological rigor over contextual realities for practitioners (Tetzlaff, Tricco, & Moher, 2009). Moreover, occupational therapy is a research-emergent profession that lacks the infrastructure to adequately produce relevant evidence (Iott, Taylor, & Bolanos, 2006). Although research evidence is important, it is but one subset of knowledge (Kinsella & Whiteford, 2009; Tetroe, 2007), one that overlaps but does not subsume therapist and client knowledge (Metzler & Metz, 2010). As underscored by MacDermid and Graham (2009, p. 125), “The less tangible truths embedded in values, experiences, and expertise brought to the table by the clinician and the patient” must be integrated with research for optimal outcomes.

Allied health professionals commonly look to their own practical experiences—and those of colleagues, clients, and experts—as preferred sources of knowledge (Estabrooks, Scott-Findlay, & Winther, 2005; Rappolt & Tassone, 2002), but they have lacked structures to move such knowledge into evidence, limiting its validation as a knowledge source. If the art and science of knowledge translation within occupational therapy is to be advanced, knowledge translation must be theoretically and methodologically sound (Colquhoun, Letts, Law, MacDermid, & Missiuna, 2010; MacDermid &
Graham, 2009); it must also be consistent with the fundamental tenets and realities of occupational therapy practice.

**Occupational Therapy Systems: Areas to Develop**

The capacity of occupational therapy systems to engage in knowledge translation needs to be developed in ways that are sensitive to the specific context of occupational therapy. It is imperative that design, intervention, and evaluation of knowledge translation (Kitson & Bisby, 2008) be considered as they relate to occupational therapy systems in particular, because the priorities and answers for other professions may not generalize to occupational therapy systems. With knowledge translation changing the landscape of occupational therapy systems, the inter-relationships among health policy, practice, research, and funding have become increasingly complex and demand a strategic plan to capitalize on occupational therapy’s unique skills and perspective.

Occupational therapists are challenged to contest the “research as evidence’ supremacy” (Lencucha et al., 2007, p. 595). As Higgs and Titchen (2001) proposed, “We cannot rely solely on research generated knowledge (with its connotations of superiority) and grand theory (with its connotations of certainty)” (p. 530) to ensure that occupational therapy knowledge is reliable and valid and offers therapists the means to be accountable to their clients and to the system. Knowledge translation processes must take a more active stance to integrate practice-based knowledge sources if they are to provide occupational therapists with a framework for research that is meaningful and relevant to practice.

Moreover, the growing knowledge translation imperative to “mutually engage one another” (McDonald & Viehbeck, 2007, p. 140) holds potential for research-based practices to emerge in a way that is directly aligned with occupational therapy’s client-centered practice values. Occupational therapists need to mobilize their management structures (McClusky & Cusick, 2002) and advocate for opportunities to actively engage in collaborative knowledge translation activities (Dhillon, Wilkins, Law, Stewart, & Tremblay, 2010). Yet, the profession’s capacity for setting the agenda for knowledge development will be constrained, particularly in biomedical environments in which occupational perspectives on health and well-being are poorly acknowledged and not highly prioritized (Baumbusch et al., 2008). The profession has had limited proactive, transformative leadership to address these issues as a collective and limited access to workplace models that support research and practice connections with integrated and protected researcher–clinician positions. Systems-level approaches are required if occupational therapy is to shift from the periphery and adequately position itself as a key player in knowledge translation.

The infrastructure required to effect integration of knowledge translation into occupational therapy systems is not insignificant. Engagement in what Kielhofner and his group (Hammel, Finlayson, Kielhofner, Helfrich, & Peterson, 2002; Kielhofner, 2005b) called scholarship of practice is the exception rather than the norm, in which infrastructure to support the collaborative integration of academic researchers and those individuals and organizations outside of academia can emphasize a commitment to developing knowledge that emerges from and responds to practice issues. Scholarship of practice assumes that “those who ultimately will use the knowledge must be partners in its generation . . . researchers and theorists in the field must work together with practitioners to not only generate the field’s theory and research but also to advance practice” (Kielhofner, 2005b, p. 10), a strategy that may support occupational therapy to engage in knowledge translation.

In addition to a scholarship of practice model, the strategic creation of roles within occupational therapy systems that allow for boundary spanning across clinical, academic, and research structures is critical to the translation process (Caldwell, Whitehead, Fleming, & Moes, 2008; Greenhalgh, Robert, Macfarlane, Bate, & Kyriakidou, 2004) and may have potential as a structural response within and beyond the profession. Boundary spanners are traditionally associated with complex interorganizational relations (Williams, 2002). Within a knowledge translation framework, boundary spanners could be developed as key individuals who support what Greenhalgh et al. (2004) referred to as the “absorptive capacity for new knowledge” or the systematic ability to “identify, capture, interpret, share, reframe and recodify new knowledge” (p. 606). Perhaps most important, they are charged with incorporating existing knowledge, acknowledging the profession’s values and goals, responding to the contextual aspects of practice, and sharing knowledge beyond the profession’s borders. To codify knowledge created in other professions for occupational therapy, boundary spanners would need a rich and diverse repertoire of skills and contacts that would require cultivation and resource investment. They must be trusted and respected across stakeholder groups; have a sophisticated and nuanced appreciation of the social, professional, organizational, and political contexts involved with collaborative endeavors; and not only envision divergent combinations of collaborators but unite them around a common goal (Miller, 2008).

Beyond the established research positions and chairs within medicine
and bench science, permanent boundary spanner roles are needed to enact a scholarship of practice model and further the knowledge translation agenda. Internationally recognized as a leader, the Canadian Child Health Clinician Scientist Program (CCHCSP) was developed to facilitate the creation and sustainability of these types of roles. Within the CCHCSP, clinician scientists act as boundary spanners across clinical and research domains:

A career as a clinician scientist requires in-depth training in both clinical and scientific disciplines, leading to the development of a sustainable and productive program of research. Clinician scientists must also be prepared to meet ethical, interpersonal, and managerial challenges and to cogently communicate ideas in an oral and written form that captivates scientists, clinicians, and the lay public. (Bortolussi, 2009, p. 2)

To achieve these laudable goals, the CCHCSP has developed a cost-sharing infrastructure across participating academic university health centers to create space for the cross-pollination of knowledge, skills, and abilities that emerges from boundary spanning activities. In addition to the cost of positions for boundary spanners engaged in knowledge translation are expenses that fall to knowledge translation researchers themselves to actively engage in dissemination and translation activities, publish, and host workshops; so too are there implications for funding agencies to allow for knowledge translation activities such as workshops, conferences, knowledge translation organizations, and research positions (Kitson & Bisby, 2008). Beyond specific knowledge translation research projects, professional capacity in engaging in knowledge translation activities requires a core budget that is sustainable (Mitchell et al., 2009). Technology development is required to support the implementation of knowledge translation strategies at the clinician, managerial, researcher, and academic levels. Communities of practice, predicated on “mutual engagement, joint enterprise and shared repertoire” (Cheek, Corlis, & Radoslovich, 2009, p. 235), similar to knowledge translation, require nurturing to develop and mature but could provide an effective model for developing an occupational therapy knowledge translation network. Occupational therapy associations at all levels must engage in these discourses and lobby to develop the knowledge translation capacity of occupational therapy systems.

Conclusion

As integrated knowledge translation becomes an expectation for research (Canadian Institutes of Health Research, 2009), enacting our role as change agents will require acting as our own advocates, lobbying for an environment that supports and encourages collaboration and provides a platform for merging clinical questions with the expertise needed to answer them. To move knowledge translation into action for occupational therapy systems, the unique characteristics of occupational therapy knowledge, professional interactions and values, and collaboration opportunities must be developed. Knowledge translation is a process that can help structure the profession’s endeavors toward this ambitious goal by reshaping how knowledge is both generated and used, yielding policy and clinically relevant research co-created by academics, policymakers, researchers, occupational therapists, and people with occupational challenges, thus enabling all involved to “envision new possibilities together” (Kinsella & Whiteford, 2009, p. 251) and participate more fully in knowledge translation. ▲

References


