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INSIDE

SPECIAL ISSUE:

Economic evidence for occupational therapy services

Guest editors: Andrew Freeman and Nadine Larivière

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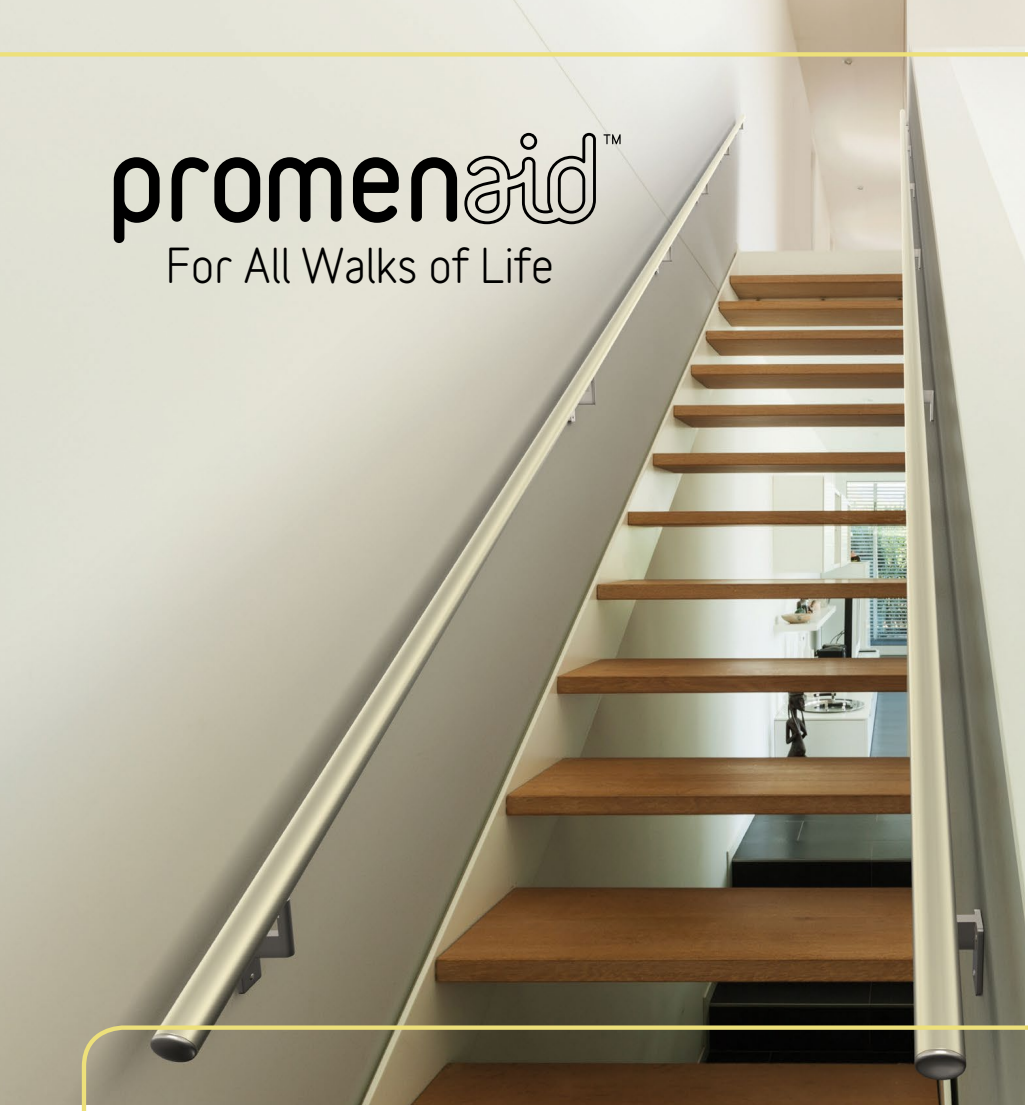

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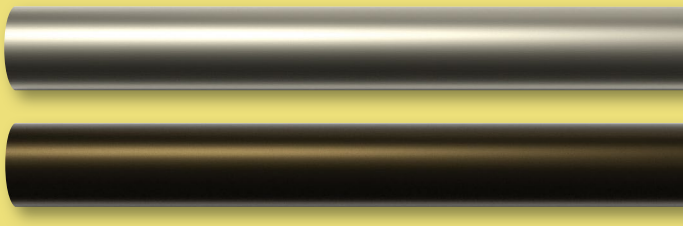

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What's new

CAOT supports occupational therapy research

To continue our support of vital occupational therapy research, the CAOT board has voted in favour of a new planned giving model for the Canadian Occupational Therapy Foundation (COTF), starting with the 2018-19 membership year. On behalf of CAOT members, we will donate up to $125,000 per year in funding annually. Our payment will be made up of five dollars for each paid member of CAOT and a dollar-for-dollar matching of COTF net fundraising amounts annually.

New CAOT-BC grant to honour Dianna Mah-Jones

The Dianna Mah-Jones Memorial Grant for Innovation was announced at CAOT Conference 2018 and will start in 2019. The grant is one of three CAOT-BC Research and Education Grants available and will support CAOT-BC members to participate in continuing education that will enable them to gain skills, knowledge, and competence to deliver innovative direct client care. The grant pays tribute to Dianna Mah-Jones, a creative and tireless advocate for innovation and excellence in client care and a major force in occupational therapy in British Columbia, whose tragic death in 2017 prompted the CAOT-BC Advisory Committee to propose this legacy.

Two new WFOT publications

Two new publications have recently been launched by the World Federation of Occupational Therapists (WFOT):

1. Sustainability Matters: Guiding Principles for Sustainability in Occupational Therapy Practice, Education and Scholarship, and
2. WFOT Student Guide for International Practice Placement

Both are available in the alphabetic Resource Centre listing at www.wfot.org/ResourceCentre

Annual General Meeting 2018

Thank you to those who attended CAOT's Annual General Meeting (AGM) held on March 26, 2018. Member attendance was 116 and participation was active and appreciated. Save the date for next year's AGM on March 25, 2019, 12-1 pm ET.

12 products newly awarded a CAOT Seal of Recognition

Over the past months, teams of product reviewers made up of CAOT members with relevant practice expertise have awarded 12 more products with a CAOT Seal of Recognition (the Seal). Seeing the Seal on product advertising or materials is an indication of quality that consumers and health professionals can use as a basis for making decisions on products to refer or purchase. The products that have progressed successfully through the rigours of the Product Recognition Program have undergone testing and evaluation of product claims and suitability for client referral. Each Seal recipient receives a product recognition report. All the new recipients have been posted, by category, to www.caot.ca/prp for both consumers and occupational therapists to view. Please make use of this valuable CAOT benefit!

Mark your calendars

CAOT is making plans to convene the occupational therapy profession at these locations and dates:

- CAOT Conference 2019 Niagara Falls, Ontario, May 29 – June 1, 2019
- CAOT Conference 2020 Saskatoon, Saskatchewan, May 6 – 9, 2020

"Who, me?" "Yes, you! Your voice matters.": A primer on the role of occupational therapists in health advocacy

Giovanna Boniface and Havelin Anand

As the association that gives voice to over 17,000 occupational therapists in Canada, the Canadian Association of Occupational Therapists (CAOT) engages in advocacy for the profession at the national and chapter levels, to realize its vision of making occupational therapy valued and accessible across Canada. Over the past year, a theme has emerged in the ideas and feedback received from members, who desire to build individual clinician capacity for advocacy. This article will be the first in a series on the topic of health advocacy, written with the purpose of sharing knowledge and resources so that occupational therapists can enhance their confidence, comfort, and capacity to engage in health advocacy at the micro, meso, or macro level(s).

What is health advocacy?

Health advocacy is a set of organized activities, strategies, and solutions designed to influence decision makers in order to achieve lasting and positive change for the common good, to improve the health of the overall population (Dorfman, & Krasnow, 2014). Quite simply, the purpose of health advocacy is to create positive change for people and their environments. It entails influencing the choices of governments and decision makers around policies, laws, resources, and budgetary allocations.

> *"With over 17,000 occupational therapists in Canada, we have tremendous power and opportunity to advocate for change and enhance access to our vital profession"*

> *"Health advocacy is integral to achieving better health outcomes for individuals and communities" (World Health Organization, 1986).*

Why is health advocacy critical for occupational therapy?

Advocacy allows us to share knowledge, expertise, and innovative or promising practices. It allows us to use individual examples and experiences for the overall good of the population, leading to better health outcomes. Even though advocacy efforts are meant to *influence* policy/decision makers, the information conveyed through advocacy efforts can support them in finding solutions to identified concerns (e.g., health ministries looking for ways to reduce hospitalizations, help seniors stay at home, or enhance primary care services may find inspiration from an evidence-based advocacy letter). Therefore, in a sense, advocacy may also *support* decision makers.

Advocacy provides the opportunity for occupational therapists to gain recognition as essential health care providers and to become a "go-to" group of professionals for advice, perspective, consultation, and input. Advocacy also provides opportunities to highlight the return on investment (ROI) in occupational therapy, as well as solutions to problems. By showcasing the ROI and solutions that occupational therapy brings to health care, it can position the profession to become a vital service, going from a "nice to have" to a "need to have" health care profession.

Recent advocacy work by CAOT includes showcasing the cost-effective solutions provided by occupational therapy (the ROI) around return to work or to civilian life for members and Veterans of the Canadian Armed Forces. Several years of initiating, nurturing, and cultivating relationships; meeting with the leadership at both the Department of National Defence and Veterans Affairs Canada (VAC); and attending and hosting booths at conferences, such as that of the Canadian Institute of Military and Veterans Health Research, led to announcements about planned increases in the creation of new occupational therapy positions within the Canadian Armed Forces and VAC.

Policy/decision makers are all around you

The decision maker who needs to be influenced in an advocacy effort is not always in government. Frequently, this person is within your sphere of influence. Some examples include your direct supervisor (e.g., advocating for improved workload management), a manager at a community health centre (e.g., advocating for more full-time equivalents [FTEs] to manage caseloads and reduce waitlists), your union (e.g., advocating to have occupational therapy included in your extended health benefits plan), and your immediate colleagues (e.g., advocating on behalf of a client at a team meeting or rounds).

Relationships are key

In health advocacy, the importance of relationships cannot be understated. In the pursuit of trying to influence change at

the organizational, community, or population level, it is crucial to target policy/decision makers. In addition, it is essential to mobilize community groups and stakeholders with similarly aligned visions to apply pressure to those same policy/decision makers. One needs relationships with all relevant stakeholders in order to facilitate and advance any advocacy strategy. These contacts and connections can be made on your own, on behalf of an organization, or in concert with one or more coalitions.

At the national level and chapter level, CAOT represents the interests of the profession in coalitions, collaboratives, and working groups, all the while cultivating relationships with many stakeholders. Working together with our partners, CAOT is active around several relevant issues including addressing the opioid crisis, expanding primary care, and promoting better health services for seniors, to name a few.

Is there a role for the occupational therapist?

Absolutely! Did you know that communicating the role and benefits of occupational therapy in supporting occupational performance and occupational engagement is an essential competency of practice for occupational therapists in Canada? In the *Essential Competencies of Practice for Occupational Therapists in Canada* (Association of Canadian Occupational Therapy Regulatory Organizations, 2011), competency 7.6 is "advocates for the occupational potential, occupational performance, and occupational engagement of clients"; key performance indicators are listed (p. 23). In addition, the *Profile of Practice of Occupational Therapists in Canada* highlights advocacy as an action that is part of the key competency of change agent (CAOT, 2012).

Getting started

An advocacy framework or model is a good place to start to find a template to guide actions and seize opportunities. There are many frameworks and models available for your reference, and the organization for which you work may even have one available for your use. Regardless of which advocacy framework you prefer, you will find that they have similar themes and principles. The following framework (adapted from Patton, 2011; Patton, 2012; and Vancouver Coastal Health, n.d.) encompasses the key principles of advocacy and can guide your actions:

If you do choose to engage in advocacy activities, it is recommended that you check with your employer regarding any relevant guidelines and protocols, so as to mitigate any risks (e.g., will you be advocating as a spokesperson for the organization or as an individual? What permission might you require to engage in advocacy?).

An example

You read an article in a community newspaper about an older adult who has been waiting over six weeks for a community occupational therapist to book a home visit. You recognize that this specific concern relates to a broader campaign currently being undertaken by your provincial or national occupational therapy association focusing on how occupational therapy can help older adults be independent and stay in their homes

Figure 1. **A framework developed by CAOT-BC, adapted from existing advocacy frameworks**

longer. If you choose to engage in advocacy on this topic, the next step would be to gather reliable information on the issue, such as by contacting CAOT or reviewing other stakeholder information (e.g., published information on the topic by the government and/or other information available from external stakeholders). It is this information that will inform the key message to be presented and the advocacy action(s) to be taken next. Ensuring that the message is aligned with what the rest of the profession is saying is key—it keeps you connected with the "bigger picture" and amplifies the message, which generally includes the problem and solution. While you are collecting information, you are also making use of support from stakeholders or community groups. In this example, the best course of action would be to write a letter to the editor, write an opinion piece or editorial, or request an interview with the journalist who wrote the article. Your message may highlight the shortage of occupational therapists in the local community health centre or the inability to meet the demands of the aging population in the community (the problem) and give a call to action to increase the FTEs for occupational therapists in the centre (the solution). Whatever angle you take, ensure the story is compelling and resonates with the reader (think: "Why does this matter to the reader?"). Finally, you need to monitor and evaluate the action—was the letter published? Did the journalist call you? If you did see a result from your action, don't forget to share it with your networks and professional association!

Your voice matters

Regardless of the outcome, by engaging in health advocacy you are raising your voice and shining the spotlight on an important issue—that we need to expand access to occupational therapy in order to improve the health and well-being of Canadians. With over 17,000 occupational therapists in Canada, we have tremendous power and opportunity to advocate for change and enhance access to our vital profession.

CAOT works hard on behalf of its members, advocating for occupational therapy, building capacity in the occupational

therapy community for its members to be change agents, as well as providing resources to support critical messages that demonstrate the value of occupational therapy.

Stay tuned for upcoming articles in this advocacy series highlighting:

- Advocacy at the micro, meso, and macro levels
- Developing the message
- The power of collaboration
- Media advocacy

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Using economic evidence to promote the value of occupational therapy: We cannot miss the boat!

Andrew Freeman and Nadine Larivière

There is strong agreement within our profession in Canada and elsewhere about the need for economic evidence to support and promote occupational therapy services (Lambert, Radford, Smyth, Morley, & Ahmed-Landeryou, 2014; Rexe, McGibbon Lammi, & von Zweck, 2013). Within the context of health care and related services, in which tremendous competition exists for available resources, not only is it necessary to demonstrate that occupational therapy makes a difference for clients, but also that it makes economic sense.

The relevance of this subject has been recognized over a number of years (e.g., Watson, 2000) and important contributions have been made in building capacity to develop and share economic evidence (e.g., Law, Law, & Watson, 2014). Occupational Therapy Canada's 2015 reflection day was dedicated to this theme (Freeman et al., 2016). One of the key conclusions that emerged from this meeting was that progressing the development and transfer of knowledge regarding economic evidence must be done with consideration of the profession's unique contribution and the populations that are believed to benefit most from this contribution (Rappolt, Freeman, Geoffroy, Boniface, & Cutcliffe, 2015). A further conclusion was that our profession's collective capacity to develop and use economic evidence must be expanded—capacity in this context involves not only having access to a more substantial body of economic evidence, but also, importantly, being competent consumers and communicators of this research evidence.

The aim of this special issue of *Occupational Therapy Now* is to contribute toward the latter part of this goal. In this editorial, we will first "set the stage" by presenting the results of an informal survey that we conducted on this topic, along with an overview of the current literature related to economic evidence for occupational therapy. We will then briefly present the articles you will find in this special issue.

Taking the pulse

In preparing for this special issue, we distributed an informal online survey to members of the Canadian Association of Occupational Therapists (CAOT) to capture a broad overview of their perspectives; we were delighted to receive 125 fully completed survey responses. Here are a few highlights, which reveal an interesting mixture of outlooks:

- 87% of respondents affirmed that it would be useful to have economic evidence for occupational therapy services.
- 38% of respondents reported using economic evidence; 71% of these individuals indicated that this evidence helps them to improve their practice or advocate for services.
- A significant percentage of respondents reported not having read any research evidence (45%) or other literature (82%) regarding economic evidence specifically related to occupational therapy services.
- However, quite a few respondents reported having read research evidence (69%) and other literature (49%) regarding economic evidence for health services in general.
- 65% of respondents reported having at least some capacity to understand economics research evidence, with a similar percentage reporting having some capacity to participate in discussions about economics research evidence with fellow occupational therapists or other colleagues and managers.
- 57% of respondents reported feeling at least somewhat competent to collaborate with researchers in producing economic evidence.
- 91% of respondents indicated that they would find it helpful to receive some support in being able to read and understand research evidence pertaining to occupational therapy services. As one respondent noted, *"It would be great to just have a general start of foundational knowledge to [allow us to] highlight the benefit of occupational therapy in public and private health care when advocating for services."*
- Various types of potentially useful supports were identified by respondents, including webinars (68%), in-person workshops (29%), and miscellaneous other ideas (e.g., online resources that can be accessed on one's own time, written guides and compilations of articles, and concrete examples that can be used to present to managers).

The respondents' overall sentiments are captured well by the following comment:

I am so pleased to see that our national magazine is taking a concerted effort to address this pressing issue. If we do not show the economic benefits of occupational therapy, other professions and groups will continue to take over areas of traditional occupational therapy practice. As a profession, we need to show why occupational therapy specifically is worth it and why it makes economic sense to funders and stakeholders.

In sum, these survey findings provide an overall sense that while respondents feel that economic evidence would be useful for advocating for occupational therapy services, many do not feel sufficiently equipped to understand or use economic evidence and wish to have access to supports in this area.

Where are we up to in the literature?

In preparing for this special issue, we took a quick look at the existing literature regarding economic evidence for occupational therapy services. Although some of these documents will be referenced throughout this issue, we will present some general trends here. As noted at the beginning of this editorial, some articles argue for the importance of having our profession build its capacity regarding economic evidence (e.g., Lambert et al., 2014). As well, some publications have emerged to assist our profession's members to develop their competency to understand and develop this kind of evidence (e.g., Law et al., 2014; Sampson, James, Whitehead, & Drummond, 2014). With respect to the research evidence, a few global reviews have been published (Green & Lambert, 2017; Rexe et al., 2013). The practice area that has received the most attention thus far is that of services for older adults; for example, there has been a general review of the cost-effectiveness of occupational therapy provided to older people (Nagayama, Tomori, Ohno, Takahashi, & Yamauchi, 2016), a systematic review of the economic evidence for home support interventions in dementia (Clarkson et al., 2017), and an evaluation of the cost-effectiveness of an intervention focused on reducing bathing disability (Zingmark, Nilsson, Norström, Göran Sahlén, & Lindholm, 2017). Other areas that have received some attention include: injured workers (Carroll, Rick, Pilgrim, Cameron, & Hillage, 2010), mental health (e.g., Morley & Smyth, 2013), Parkinson's disease (Sturkenboom et al., 2015), and pressure sore prevention (Stinson, Gillan, & Porter-Armstrong, 2013).

Although positive, the progress made to date in publishing research on economic evidence in these areas also highlights the need for research in other practice areas. As noted by one respondent to our survey, *"I've seen a lot of articles published regarding occupational therapy services [with] wait times in hospital and decreased re-admissions [used as metrics]. I think it would be beneficial for research to be applied to other areas of practice such as disability prevention or decreasing short-term/long-term disability outcomes."*

What are you going to find in this special issue?

In building the content for this special issue, we have endeavoured to respond to the profession's need to build foundational competence. To this end, we have included a brief "Economics 101" article (p. 10) to introduce readers to some key concepts; we have supplemented this with the inclusion of some useful references to help readers to further pursue their learning.

As well, we have deliberately adopted a broad perspective that acknowledges that building our profession's overall capacity requires the complementary and collective contributions of various stakeholders—practitioners, managers, researchers, and economists. In their respective articles about the "Lifestyle Redesign®" approach, Lévesque and Levasseur (p. 16) and Turcotte, Carrier, and Levasseur (p. 24) have discussed the integration of economic evidence into their perspectives as practitioners. In Duncan and her colleagues' article (p. 18), they have described how they were able to retrospectively add an economics component to a home care intervention analysis, working collaboratively with both researchers and practitioners in this process. From the perspective of a clinical coordinator, Adams has discussed the great need for economic evidence not only for existing services but also for the development of services that take into account a broad orientation to the many determinants of health (p. 21). Occupational therapist and hospital administrator Blandford has described several examples of the economic benefits associated with certain occupational therapy services and emphasized the tremendous advantages associated with occupational therapists' person–environment–occupation analyses (p. 27). Importantly, however, he has also made a case for occupational therapists being able to define the value of their services in terms that administrators like him are required to use. Finally, Metge provided essential information about how to effectively collaborate with a health economist (p. 13).

Conclusions

We are well aware that by focusing upon the "number-crunching" aspect of occupational therapy services, there is a danger of falling into the "managerialist" trap (Armstrong, 2013)—that is, changing our way of thinking about our services by reducing them to quantifiable elements that are easily digestible for service funders and yet no longer represent the overall essence of occupational therapy. However, it is worth remembering that if we do not actively contribute to discussions about cost-effectiveness or cost-benefit analyses of occupational therapy services, resource allocation decisions will continue to be made in any case—decisions that may or may not favour our profession and, more importantly, those who require occupational therapy services.

This special issue is merely one step toward helping to increase our profession's capacity to use economic evidence for occupational therapy services. At the end, if we have succeeded in making the topic less intimidating and more tangible, and have helped you to become a more competent consumer and communicator of this evidence, we will have achieved our goal!

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Occupational therapy economic evaluations 101: You can join and spur on the conversation!

Andrea Duncan and Nadine Larivière

Highlighted in the survey presented in the editorial (p. 7) is the importance of this issue's topic in our current context and the interest of occupational therapists in being competent consumers of economic evidence and collaborators in generating information that will resonate with health managers and politicians. One way to begin gaining competency is to understand health services economic evaluation a little better in order to speak the language of decision makers.

When we look at the growing literature on economic evaluations in occupational therapy, we are excited to see how much our profession has joined the conversation around economic evidence. Not only are we showcasing our clinical effectiveness, but we are also demonstrating cost-effectiveness. Our goal in writing this article is to demystify some of the terminology used in economic evaluations. We want to empower occupational therapists by highlighting how other occupational therapists are applying economic evaluations to their own clinical interventions and research agendas. Readers will advance their understanding, so they can participate in economic evaluations that are happening in their own practice and research contexts.

Completing an economic evaluation can be as simple as considering both inputs and outputs or, in the case of health services economic evaluation, costs and consequences. It is a process of considering the costs of providing a particular intervention versus the costs of the outcome of not providing the intervention *or* the costs of providing a different intervention. While the field of economics has enormously expanded in recent years, both inside and outside health care, economic evaluations are just as much an art as a science. The process is about making choices about what elements should and should not be included. You might choose to compare multiple interventions and consider multiple types of outcomes. You might choose to use evidence and data from a variety of sources, such as: existing hospital or Canadian Institute for Health Information data, new data collection, published literature, and/or from stakeholder engagement. Below, we will provide you with a list of recommendations to consider when completing an economic evaluation. First, we will provide you with an understanding of basic terms.

Common types of economic evaluations

Cost-benefit analysis

A cost-benefit analysis is one of the classic methods of economic evaluation. The process of such an analysis simply involves calculating all of the monetary benefits of a particular intervention and comparing these to the cost of the intervention (Drummond et al., 2015). For example, in the field of work rehabilitation, a cost-benefit analysis may be useful to help advocate for funding for occupational therapy services in the following way. If the cost of the services is expected to be $4,500 for one client, and the costs avoided by returning this client to work six months sooner than would otherwise have been possible are $10,500, then the benefit of paying for occupational therapy services could be demonstrated as a savings of $6,000. Quantifying the costs of our outcomes is important; however, occupational therapists know that many of our interventions impact outcomes that may be difficult to measure in terms of costs. This leads us to embrace other economic methods.

Cost-utility analysis

In health care in general, not just occupational therapy, the benefits of interventions can often be measured beyond any monetary gains. The process of completing a cost-utility analysis (CUA) attempts to quantify non-monetary items. For example, a measure of quality of life is called the **quality-adjusted life year,** or QALY. A QALY is an estimated value used to indicate how many additional quality life years an individual may obtain because of a particular intervention (Drummond et al., 2015). This process seeks to turn the outcome, or effect, of an intervention into a cost-benefit. By including QALYs, we can compare two interventions that have different expected outcomes.

Example: Zingmark, Nilsson, Fisher, and Lindholm (2016), in their publication "Occupation-focused health promotion for well older people—A cost-effectiveness analysis," reported that they calculated QALYs resulting from their intervention by scoring participants on the 12-Item Short Form Survey (SF-12) at two points in time, three months apart. The researchers used the improvements in SF-12 scores to calculate QALY scores. These scores were then used to help demonstrate the cost-effectiveness of their intervention.

Cost-effectiveness analysis

The most common economic evaluation we see in our profession's literature is the cost-effectiveness analysis (CEA). A CEA involves a process of comparing the costs of two or more interventions to their outcomes, or effects,

and determining if the incremental costs are worth the incremental benefits. Once benefits have been calculated in QALYs, the next step is to calculate the incremental costs, or the **incremental cost-effectiveness ratio** (ICER). The ICER is the economic difference between two interventions *or* the difference between completing an intervention and not completing an intervention. An ICER is simply calculated by subtracting the costs of the two interventions and dividing this by the difference in the effects.

Example: Lambert, Lorgelly, Harvey, and Poland (2010), in their publication "Cost-effectiveness analysis of an occupational therapy-led lifestyle approach and routine general practitioner's care for panic disorder," reported that they calculated the total mean costs and outcomes (using QALYs) of routine intervention and the lifestyle intervention. Cost data used were general practitioner (GP) appointments, non-GP appointments, occupational therapy visits, referrals to other agencies, and prescribed medication. The cost and outcome data were then used to calculate an ICER. This process was helpful in confirming that while the cost of providing the occupational therapy-led lifestyle intervention was more than that of providing routine intervention, it led to better outcomes. The ICER allowed the researchers to demonstrate the positive impact of this intervention over five-month and 10-month periods of time.

It should be noted that cost-effectiveness analyses and cost-utility analyses are defined inconsistently. By some definitions (Soares & Dumville, 2008), a CUA is an economic evaluation using only QALYs as the measure. Other economic literature used CUA and CEA interchangeably. It is very important to verify which terminology is being used and which approach is being described as you read about and participate in specific economic evaluations. A detailed example of a cost-effectiveness analysis of the *Lifestyle Redesign*™ approach can be found in this issue (Levesque & Levasseur, 2018; p. 16).

Finally, a simple way that clinicians can document costs is through cost analysis. This involves comparing the costs of two interventions or programs (Drummond et al., 2015). For example, Larivière and colleagues (2011) examined mental health service utilization six months before and six months after two interventions (day hospital treatment and inpatient hospitalization). In order for them to do so, participants provided information in a calendar format about the type and frequency of their use of mental health services (e.g., emergency visits, duration of hospitalization, visits to outpatient clinics), and this information was validated by researchers. Only direct costs were taken into account in this analysis because of the complexity of collecting data on indirect costs related to personal expenses (e.g., travelling, medication, loss of income). A detailed study that had measured mean costs of all of these services and the budget of the site of the study was used as a comparison. The cost analysis results revealed that the differential costs per participant between six months before and six months after were $118 for the day hospital group and $23 for the hospitalization group. The cost reduction related to service utilization was 38% in the day hospital group and 7% in the hospitalisation group.

Conclusion

In today's health care environment, health care dollars are finite. Therefore, considering cost-effectiveness alongside clinical effectiveness is no longer a "nice" thing to do; it is absolutely essential to ensure we are maximizing the efficiency of our system. This article is intended to invite occupational therapists into the conversation and describe a few basic terms. If you are keen to learn more, please see the accompanying supplement with recommended readings and resources. Keen to try an economic evaluation in your practice context? Incorporate some of these recommendations into your approach:

1. Engage partners: Work with researchers, accountants, statisticians, and other health professionals.
2. Find existing data: Look for local evidence. There is already a great deal of research and system-level data that has already been collected and is awaiting your economic lens and questions.
3. Ask yourself what perspective you are taking: Are you looking at the client level, organization level, system level, or societal level? This will help focus your question and data collection.
4. Detail clearly the interventions and/or programs you are comparing: Select standardized measures that reflect your clinical outcomes and goals.
5. Learn more: This article is meant to get you excited. Read, take courses, attend presentations, and ask for help.
6. Ask questions: Ask how your interventions and programs are being evaluated. If there is not an economic component in the evaluation, make sure that one is considered. Advocate for this very important addition.

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Additional recommended resources

1) Book: Drummond, M. F., Sculpher, M. J., Claxton, K., Stoddart, G. L., Torrance. (2015). Methods for the Economic Evaluation of Health Care Programmes (4th ed.). Oxford, UK: Oxford University Press.

2) Book: Annemans, L. (2008). L'économie de la santé pour non économistes: Une introduction aux notions, aux méthodes, et aux écueils de l'évaluation économique en santé. Gent, Belgium: Academia Press.

3) Book chapter: Dionne, P.A., & Vasiliadis, H.M. (2014). Les évaluations économiques dans le domaine de la santé : illustration d'une analyse des coûts du programme Integrated Psychological Treatment (IPT). Dans M. Corbière et N. Larivière (Eds.), *Méthodes qualitatives, quantitatives et mixtes dans la recherche en sciences humaines, sociales et de la santé* (pp. 231-255). Québec, QC: Presses de l'Université du Québec. This book chapter explains in an easily accessible way common types of economic evaluations and includes an example using an occupational therapy intervention for persons with serious mental illness.

4) Book: Law, M., Law, M., & Watson, D. (2014). Evaluating the evidence: Economic evaluations. In M. Law & J. C. MacDermid (Eds.), *Evidence-based rehabilitation: A guide to practice* (3rd ed., pp. 175-186). Thorofare, NJ: Slack.

5) Article: Sampson, C., James, M., Whitehead, P., & Drummond, A. (2014). An introduction to economic evaluation in occupational therapy: Cost-effectiveness of pre-discharge home visits after stroke (HOVIS). *British Journal of Occupational Therapy, 77*, 330-335. doi:10.4276/030802214X14044755581664

6) Course: Public Economics, created by National Research University Higher School of Economics and available on Coursera. https://www.coursera.org/learn/public-economics

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How to engage with a health economist

Colleen J. Metge

Your idea to improve your practice looks promising, but the hospital administrator has asked you some awkward questions: What is the improvement going to cost? Will the costs be more than the benefits you're sure will result from implementing the improvement? Can you give me a bottom line; in other words, will this be cost neutral or cost saving? Is this program or intervention competing with a similar one, or is it something entirely new? How does this new program or intervention compare to "doing nothing"?

Essentially, you have two options when trying to answer these questions—use the "Occupational Therapy Economic Evaluations 101 – You can join and spur the conversation!" article in this issue (p. 10) to work out the answers yourself or retain the services of a health economist. Interestingly, you can use both approaches to determine if the improvement in practice will be economically feasible. The article on "Economics 101" gives you the necessary concepts and language/jargon; a health economist can help you put them together, and this article will provide you with an introduction on how to engage with a health economist.

Health economists combine their knowledge of economics and health care to analyze how health care resources are used and distributed. They focus their efforts on ways to better understand the health care system, advance health care policies, and improve the quality of patient care. Mostly, they consider the impact of care interventions on health or evaluate the cost-effectiveness of current clinical processes, policies, and regulations.

Health economists understand the critical roles that economic reasoning and cost analyses play in forming public health care policies, as well as the interrelationships between economics and biostatistics, epidemiology, public health, and the burden and process of disease and disability. Based on this knowledge, then, health economists can produce data-driven research regarding the effectiveness of health services, systems, and interventions.

A health economist should take a distinctively integrated view of service costs and patient health and provide an analytical toolkit to help a health care professional, such as an occupational therapist, better understand the efficiency and equity implications of key resource allocation decisions, such as improving occupational therapy services.

But the question remains, "How do I relate to someone with this kind of knowledge?" Unless the health economist (or person applying the principles of economics) is an occupational therapist, then both of you come to the table as experts in your own fields. Remember this: a health economist coming from a different background needs you to give your perspective and to adequately describe exactly how you are wanting to improve an occupational therapy process and its outcomes within the existing health care system, not only for the sake of the system but for clients. The remainder of this article is a primer on what you need to get ready to engage a health economist to answer the questions posed by those above you. The content will also help you with the back-and-forth negotiations involved in retaining someone to help "make your case."

Before retaining a health economist or someone with the skills to undertake an economic analysis, you need to be prepared. By considering the following questions, you will come prepared, even if you do not know all the answers. One of the first things to remember is that an economic evaluation only addresses one dimension of health care program decisions, such as the decision to initiate an occupational therapy intervention. **Economic evaluation is most useful when preceded by three other types of evaluation**—each addresses a different question (Drummond, Sculpher, Claxton, Stoddart, & Torrance, 2015). With the answers to these questions, you will be well positioned as an expert in the practice of occupational therapy to engage a health economist:

a) **Can it work?** Does the health procedure, service, or program you are proposing do more good than harm to people who fully comply with the associated recommendations or treatments? This type of evaluation is concerned with *efficacy*. Two examples of efficacy studies are referenced in the recommended reading list (Sackley et al., 2015; Stewart et al., 2005).

b) **Does it work?** Does the procedure, service, or program do more good than harm to those people to whom it is offered? This form of health care evaluation, which considers both the efficacy of a service (can it work?), and its acceptance by those to whom it is offered, is the evaluation of its effectiveness or usefulness. An example of an *effectiveness* study is cited (Berger, 2013).

c) **Is it reaching those who need it?** Is the procedure, service, or program accessible to all people who could benefit from it? Evaluation of this type is concerned with *availability*. An evaluation of the access to occupational therapy services is referenced in the recommended reading list (Roots & Li, 2013).

Begin with the end in mind

Ultimately, in order to justify a change in service, you will have to report on the findings of all evaluations done regarding the service or intervention being proposed or evaluated. By using the following checklist, you will get an idea of how an economic evaluation can be reported on and what elements you will need before starting (or retaining someone to undertake) an economic analysis (Siegel, Weinstein, Russell, & Gold, 1996). You should expect various items (*in italics*) from the following checklist to be in the economist's project proposal. The other items are either a part of the process of the analysis (determining unit costs, sources of resource use costs, how health states [e.g., quality of life] will be measured, etc.) or part of the summary (results, limitations of the analysis, etc.). There are other checklists available that may be more helpful to you (e.g., Husereau et al., 2013).

If beginning with the end in mind does not help or the above is still too vague, then consider the following questions either before or while engaging with a health economist (Drummond et al., 2015).

1. Have you asked a *well-defined question* which can be posited in an answerable form?

- Do you have an idea of what costs (direct and indirect) and effects or outcomes of the service/intervention should be examined?
- Are you comparing alternatives to the intervention/program to a "do nothing" scenario? Regardless, a comprehensive description of any competing alternative(s) and/or the "do nothing" scenario will need to be given; in general, for each alternative, you need to be able to state who did what, to whom, where, and how often.
- From what viewpoint will the analysis be undertaken (hospital, government, society), and will the analysis be placed in a particular decision-making context? Although a societal perspective is seen to be the most encompassing, any perspective that entails using measurable inputs (costs) and outputs (consequences) is the most desirable.

Framework

- *Background to the problem*
- *General framing and design of the analysis*
- *Target population for intervention*
- *Description of comparator program(s)/service(s)*
- *Time horizon*
- *Statement of the perspective of the analysis*

Data and methods

- *Identification of outcomes of interest in analysis*
- Complete description of estimates of effectiveness, resource use, unit costs, health states, and quality-of-life weights and their sources
- *Methods for obtaining estimates of effectiveness, costs, and preferences*
- Critique of data quality
- Statement of year of costs
- *Statement of method used to adjust costs for inflation*
- Statement of type of currency
- Statement of discount rates

Results

- Reference case results (discounted at 3% and undiscounted): total costs and effectiveness, incremental costs and effectiveness, incremental cost-effectiveness (CE)
- Results of sensitivity analyses
- Graphical presentation of CE

Discussion

- Summary of reference case results
- Summary of sensitivity of results to assumptions and uncertainties in the analysis
- Discussion of the analysis assumptions having important ethical implications
- Limitations of the study
- Relevance of study results for specific policy questions or decision
- Results of related CE analyses
- Distributive implications of an intervention

Figure 1. **Necessary elements to include in a report of an economic analysis**

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2. Was the *effectiveness* of the program or services established? This combines the questions from above about (a) efficacy and (b) effectiveness.

- Was *efficacy* (can it work?) demonstrated through a randomized, controlled trial? If so, did the trial protocol reflect what would (and does) happen in regular practice?
- Was *effectiveness* (does it work in the real world?) established through an overview of clinical studies? Or, were observational data or assumptions used to establish effectiveness? If so, what are the potential biases in results?

3. Are you able to identify all the *important and relevant costs and consequences* (outcomes) of each alternative identified?

- Do you have a broad enough range of costs and consequences for the research question at hand?
- Have you thought of all relevant viewpoints? (Possible viewpoints include the community or social viewpoint and those of patients and third-party payers. Other viewpoints may also be relevant depending upon the particular analysis.)
- Are you able to include capital costs, as well as operating costs?

4. Can you measure accurately *costs and consequences* (outcomes) in appropriate physical units (e.g., hours of occupational therapist time, number of nurse/physician visits, lost workdays, gained life years)?

- Can you identify items of either cost or consequence that cannot be measured? If so, does this mean that they carry no weight in any subsequent analysis?
- Are there any special circumstances (e.g., joint use of resources) that make measurement difficult? Does the economist feel that these circumstances can be handled appropriately?

5. Can you *value* the costs and consequences *credibly*?

- Can you clearly identify the sources of all values? Possible sources include market values, patient or client preferences and views, policy makers' views, and health professionals' judgements.
- The valuation of consequences or outcomes should be appropriate for the question posed. In other words, the economist should be able to direct you to the appropriate type or types of analysis—cost-effectiveness, cost-benefit, cost-utility—such that the findings are understandable to you and others who are not economists.

6. Do costs and consequences need to be *adjusted for differential timing*?

- Costs and consequences that occur in the future need to be "discounted" to their present values. The economist can help you with this; he/she will use a discount rate and the rate should be justifiable.

7. Do allowances need to be made for *uncertainty* in the estimates of costs and consequences?

- The economist will examine the data on costs and consequences and help you to determine if a sensitivity analysis needs to be done. Justification needs to be provided for the range of values he/she uses in the analysis. Also, if the study's results end up being sensitive to changes in the values, are they within the assumed range used in the sensitivity analysis or within the confidence interval around the ratio of costs to consequences?

By taking the time to familiarize yourself with the concepts of economics, the requirements for undertaking an economic analysis, and what you can contribute to the analysis, you will be well on your way to determining if your idea is economically feasible.

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Lifestyle Redesign®: Inspiring and compelling economic results for innovation in health promotion!

Marie-Hélène Lévesque and Mélanie Levasseur

Given that it is a national priority for the profession to demonstrate the economic value of its interventions (Rappolt et al., 2015), it is no longer enough to demonstrate the unique contribution and effectiveness of occupational therapy practices. In fact, occupational therapists, like other stakeholders, decision-makers, and partners in the health care network, must now show that every dollar invested in health represents a direct or indirect economic benefit. Yet, as practitioners, we are not always well equipped to understand and use the research evidence emerging from economic analysis. Given my experience as a clinical occupational therapist and student researcher, this article examines the compelling economic results of *Lifestyle Redesign* (LR) and discusses their role in promoting the integration of this innovative intervention into occupational therapy practice.

In 2011, the accumulation of ten years of clinical practice gave me a pragmatic view of the challenges and issues related to the profession. Recognizing the context of fiscal restraint, issues related to population aging, and the need to fully exploit the occupational therapy contribution, I returned to school with the aim of exploring new preventive approaches. I subsequently came to understand that clinical applicability and cost-effectiveness would be key arguments in supporting the integration of preventive approaches to the practice.

During my studies, I was exposed to the field of occupational science, a subject that especially caught my attention, allowing me to take a fresh look at my practice. In researching the topic of my final project, I discovered, through readings and contact with other researchers, LR - a preventive occupational therapy intervention arising from the theoretical foundations of occupational science. Developed around the central theme of health through occupation, LR is an intervention that aims to support, through the development of healthy and meaningful occupational routines, the health, functioning, and quality of life of older adults. In concrete terms, this intervention combines a group approach (2 hours/week) with individual follow-ups (1 hour/month). Over a period of six to nine months, the occupational therapist explores topics of importance to older adults, such as safety, the use of transportation, and stress management, and discusses their relationship to health and occupation (Figure 1; Clark et al., 2015). Throughout the intervention, the older adults also reflect on the importance, meaning, and effects of their occupations on health. In its original form, LR was shown to promote significant improvements in the functioning, vitality, mental health, social interactions, and satisfaction with life of older adults (Clark et al., 1997; 2012). In addition, the intervention's cost-effectiveness was highlighted in a study (Hay et al., 2002) and is considered to be one of the first occupational therapy initiatives to use advanced research methods in the field of health economics (Clark, Carlson, Jackson, & Mandel, 2003).

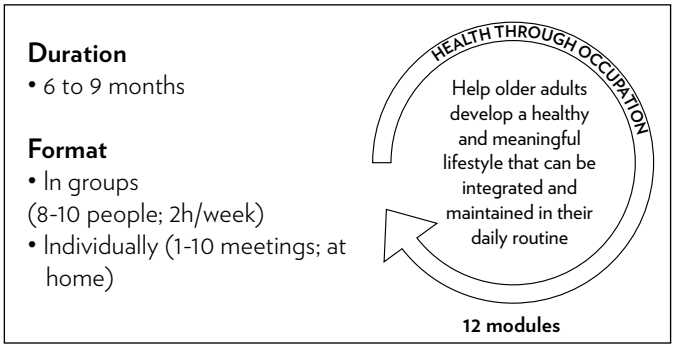

Figure 1. **Lifestyle Redesign: an overview**

What is the economic research evidence on Lifestyle Redesign?

A literature review allowed me to identify two rigorous randomized controlled trials (RCTs), one of which was conducted by Clark and colleagues (1997), which hypothesized that LR (experimental group) - compared to a social activity group (active control group) and to no intervention (passive control group) - would positively influence the health, functioning, and well-being of older adults. Among the team members, Professor Joel Hay was responsible for evaluating the cost-effectiveness of the intervention (Hay et al., 2002). To do this, he and his team first counted the hours that the occupational therapist spent in direct presence with clients, as well as preparation and travel time. The researchers' calculations revealed that the **average cost of LR** was US$548 (approximately CAN$785) per participant, for a nine-month intervention, offered at 2 hours per week in two residences. The team then compared the health expenditures of participants in the experimental group with those of the two control groups. Over a period of fifteen months, in order to document their medical expenses (e.g., clinic visits, hospitalizations) and domestic help (e.g., shopping, housekeeping), participants were contacted monthly by telephone. Although the results were not statistically different for these three groups, lower expenditure was

observed in the experimental group (US$967/participant) compared to the active (US$1,726) and passive (US$3,334) control groups. Furthermore, it appears that the **savings generated by reducing the use of health services** by LR participants (between US$759 and US$2,367) were sufficient to cover the cost of the intervention (US$548). In addition, LR resulted in positive impacts that have been sustained over time, particularly in the area of older adults' health. Finally, Hay and colleagues (2002) evaluated the **incremental cost-effectiveness ratio** (ICER): an index of the differential effectiveness of treatments, used as a guide in choosing which interventions to implement (Metge, 2015). Usually expressed as cost/Quality-Adjusted Life Year (QALY), that is, what it costs to add a disability-free life year, the ICER of LR was under US$50,000 (US$10,066), an intervention deemed profitable (Graham, Corso, Morris, Segui-Gomez, & Weinstein, 1998).

Moreover, in 2012, Clark and her colleagues published the convincing results of a second RCT on LR. Similar to Hay and colleagues (2002), Clark's team measured a number of economic variables, of which the estimated intervention cost was US$783 per participant, for six months at 21 sites, and the ICER, US$41,218. Thus, this study also supports the economic advantages associated with LR.

What are the implications of these results for practice?

The results of these two American studies on LR provide strong support for convincing decision-makers to use these efficient and cost-effective interventions, a conclusion that is also supported by the opinion of clinical experts. For example, four community-based occupational therapists, who participated in a focus group during my Master's project, were of the opinion that the integration of LR into front-line services could lead to reduced health care and service costs (Lévesque, Trépanier, Sirois, & Levasseur, 2016). Specifically, they perceived that using a group modality would increase the number of clients served; better accessibility of services for non-urgent needs could prevent the worsening of certain precarious situations and the use of more expensive health services. In short, they thought that one of the financial benefits of LR stemmed from a more responsible and targeted use of professional resources. It is relevant to note, however, that LR's economic evaluations were conducted in the United States; it will be important to review the details (e.g., Canadian dollars, salary of occupational therapists, cost of health services) in the Québec and Canadian contexts.

In conclusion, the involvement of occupational therapists in preventive care is considered by many to be a necessary response to the imperatives of health cost reductions (Murray, 2012; Rexe, Lammi, & von Zweck, 2013). In this context, LR studies are useful examples that contribute to this objective. Indeed, LR is not only an innovative intervention that supports the health and well-being of older adults, but also a potentially cost-effective solution for the health of aging Canadians. In the years to come, further research on the effects and cost-effectiveness of LR, including in its French version, will be necessary to support its integration into Canadian occupational therapy practices

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The economics of home safety assessments: How researchers used existing research data to complete an economic evaluation

Andrea Duncan, Qi Guan, Arrani Senthinathan, Anne Wojtak, Gayle Seddon, and Sandra McKay

In today's resource-constrained context, occupational therapy services must be cost-effective as well as clinically effective in improving and/or maintaining health, well-being, and quality of life (Freeman et al., 2016). In this article, we will illustrate how researchers can support an analysis of economic evidence for home safety interventions.

Individuals' functional independence decreases with age. It is well established that bathing is often the first activity of daily living in which seniors require support and assistance (Katz, 1963). This challenge is a major concern for service funders, as loss of independence in bathing can have important cost implications for caregiver and personal support worker services. Additionally, falls can occur when bathing is unsafe (Gillespie et al., 2012; Lockwood, Taylor, & Harding, 2015; Pighills, Torgerson, Sheldon, Drummond, & Bland, 2011).

Fall-related hospitalizations for Canadians over the age of 65 occur at a rate of 16 per 1,000, of which 50% are a result of falls occurring in the home (Canadian Institute for Health Information, 2008). Rates of falls, subsequent health outcomes, and associated costs are fairly consistent across international jurisdictions (Campbell et al., 2005; Church, Goodall, Norman, & Haas, 2012; Muntinga et al., 2012).

A recent Cochrane Review of community-based interventions that reduce the rate of falls revealed that multifactorial interventions have the best success at reducing falls incidence (Gillespie et al., 2012). The most effective intervention was a home safety assessment (HSA) in combination with subsequent home modifications. This intervention was found to reduce an individual's falls risk when implemented by an occupational therapist (Gillespie et al., 2012).

The *incremental cost effectiveness ratio* (ICER) is often used as a metric of economic evaluation when considering the cost and impact of two interventions. Researchers based in New Zealand calculated that the incremental cost of a fall was NZ$650, while the cost to deliver an HSA was NZ$325 per person (Campbell et al., 2005). Other researchers have demonstrated that HSAs have an ICER of NZ$5,400, which by health economists' standards indicates that they are an extremely cost effective intervention (Wilson, Kvizhinadze, Pega, Nair, & Blakely, 2017). In the case of Campbell and colleagues' analysis, the total health care costs when the intervention is not provided and a fall does occur was compared to the cost of providing the intervention and preventing a fall.

The starting point: Existing research data

In 2015, Dr. Sandra McKay, manager of research and evaluation at VHA Home HealthCare (VHA); Dr. Alison Novak and Dr. Emily King; and student occupational therapists Janice Chan and Kathryn Benoit completed a research project entitled *Bathroom Safety Recommendations in Home Care: Review of Current Occupational Therapy Practice*. This project's goal was to understand current occupational therapy practice in bathroom equipment recommendations and clients' actions in response to these recommendations. The project's authors used a retrospective chart review of 352 clients to identify the frequency of equipment recommendation implementation following an occupational therapy HSA. In general, the findings revealed that clients more often followed through with bathing equipment recommendations than toileting equipment recommendations. Funding of equipment was also identified as a barrier to the acceptance of some equipment (Benoit, Chan, King, McKay, & Novak, 2017).

Developing the economic evaluation question

Andrea Duncan, Qi Guan, and Arrani Senthinathan collaborated with Dr. Wojtak and Dr. McKay to conduct an economic evaluation using raw data collected from the retrospective chart audit used in the student project described above. The first step was to develop the specific research question for this evaluation. Although we were using existing data, it was necessary to identify a new approach and question, which required multiple stakeholder meetings involving both the Toronto Central Local Health Integration Network (LHIN) and VHA. The Toronto Central LHIN is responsible for the coordination and delivery of publicly funded home and community care services to its local residents, while VHA delivers occupational therapy services under contract to the Toronto Central LHIN.

VHA was interested in conducting a cost–benefit assessment of the use of occupational therapists for HSAs

and specifically wished to know how to assess the value of HSAs and determine if options existed for better utilizing occupational therapy resources. The researchers were interested in better understanding why the Toronto Central LHIN pays for HSAs, what it perceives as their value, and how VHA identifies the value of the services it provides. To this end, the researchers consulted the occupational therapists from VHA who have conducted HSAs, asking the following three questions: 1) What are the main components of an HSA? 2) Can you describe the characteristics of your ideal client who benefits from a HSA? 3) What is the present value of a HSA?

The occupational therapists reported that each of their clients participates in a global functional assessment, which identifies the client's physical abilities to engage in mobility, transfers, and activities of daily living. In assessment of bathroom safety, 85% to 90% of clients would be identified as requiring attention to safe access, mobility, and transfers, mostly specific to the toilet and bathtub/shower. The therapists believe that they add the most value when they are sent in to see clients who are: newly discharged from hospital; have had a previous fall; are isolated and living alone; are at risk of institutionalization; are at risk of developing pressure ulcers related to poor positioning and seating; are using personal support worker services for bathing and toileting; or are experiencing multiple comorbidities. Although the therapists identified many advantages associated with HSAs, the prevention of falls in the bathroom was a key benefit often mentioned.

Based on the existing data, the needs of the Toronto Central LHIN, and the perspectives of the VHA occupational therapists, the researchers decided that it would be feasible and beneficial to conduct an economic evaluation using a cost–benefit analysis. A HSA was identified as the intervention and the implementation of bathroom safety equipment was identified as the outcome. The most appropriate economic evaluation question that was eventually agreed upon was: *What is the cost–benefit of a home safety assessment in relation to recommendation and successful implementation of bathroom safety equipment?*

Carrying out the economic evaluation

The researchers applied known costs to HSAs and bathroom equipment. Specifically, the contract prices that the Toronto Central LHIN pays for HSAs and bathroom equipment rental were applied to the cost considerations. Additionally, findings from the existing literature were used to estimate the likelihood of a fall when equipment was accepted compared to instances in which it was not accepted. Our analysis led to an understanding of the likelihood of recommendations being implemented, which in turn informed the creation of two cost–benefit decision trees that compared the economic impact of having a HSA or not. The results of the cost–benefit analysis were consistent with other researchers' findings, in that the HSAs from the chart audit were deemed to be a cost beneficial intervention.

Discussion and conclusions

In today's health care climate, funding is finite, and it is important to determine the monetary benefit of current funding models to optimize dollars spent. As researchers, practitioners, leaders, and funders, it is our responsibility to not only provide research-informed services but also to demonstrate that health care dollars are utilized efficiently.

Although the economic findings of the study on home bathroom safety were generally favourable, the findings and recommendations also identified areas where further cost savings and system efficiencies could be achieved. For example, future economic evaluations should examine the costs associated with improved implementation of home safety equipment for bathrooms, such as increasing the responsibility of the Toronto Central LHIN care coordinator or increasing the number of occupational therapy visits for clients identified as being at high risk for falls.

The results of this economic analysis were shared with the Toronto Central LHIN and VHA and appear to have informed discussions about funding allocation for occupational therapy services. The real-world implications for policy, funding, and future research seem to suggest that this case study was successful.

As authors of this case study, we have two recommendations for readers. The first recommendation is regarding feasibility. It is important to recognize and exploit existing opportunities for economic evaluation. In this case, data were already available, and initiating the project was a matter of defining a secondary research question. Not all economic evaluations need to start at the very beginning.

The second recommendation relates to partnership opportunities. Regardless of area or context of practice, this case study demonstrates that bringing together researchers, students, funders, service organizations, and practitioners can lead to an informative research project. Each of these stakeholders could not have achieved the results by themselves; it was collective and shared goals that permitted this project to be undertaken.

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An economic perspective on occupational therapy services in mental health and substance use: Thinking ahead and thinking big

Tracy Adams

Among the strengths of our publicly funded health care services in British Columbia is that of meeting the health needs of all individuals regardless of income status, race, or education level. Currently, in my role as practice coordinator for mental health and substance use working in the Vancouver Coastal Health (VCH) regional health authority, I partner with operational managers to assist with recruiting, orienting, and subsequently supporting occupational therapists in practice in their respective settings. In addition, I participate in guideline and policy development for VCH to align practice with organizational goals.

Our mental health and substance use services include inpatient, tertiary, and community settings, where we fully embrace the use of a trauma-informed, culturally sensitive, and harm reduction approach. However, the limited availability of economic evidence is making it difficult to articulate the need for occupational therapy services and thus advocate for them. Given the many competing resource and service needs in publicly funded health care, it is more important now than ever to have such data available when resource allocation decisions are being made. In this article, I will discuss the importance of clearly defining the occupational therapy role in our everyday work but also that of shifting our profession's culture to include the use of an economic health forecasting approach regarding how occupational therapy services can save costs in the public health care system.

A comprehensive system for complex needs

Our public mental health system sees two main groups of clients: (1) those experiencing psychosis, such as due to schizophrenia, schizoaffective disorder, or bipolar disorder and (2) those experiencing mood issues, such as those resulting from depression, anxiety, or borderline personality characteristics. Many of our clients experience a combination of mental health symptoms, have multiple diagnoses, and may or may not use substances. Because of client complexities, determining functional abilities and what interventions are needed in the presence of clients' experienced symptoms becomes the main goal of care. Where our public health care service shines is in pairing optimization in pharmacology with enhancement of an individual's quality of life through psychosocial rehabilitation. In our health authority, the continuum of mental health care encompasses a variety of services, including: a 24-hour access center for urgent and non-urgent issues, emergency psychiatric assessment unit, inpatient psychiatry, community mental health teams, assertive community treatment (ACT) teams, community rehabilitation programs, and an outpatient program. Not only does our system offer both direct and indirect services seen in traditional inpatient and community services, there are also specific rehabilitation services with specialties in employment and supportive housing , as well as specialized programs that interface with the criminal justice system.

The limits of current resource allocation approaches

However, even though our health authority offers a variety of services that encompass most areas of occupational performance that are likely to contribute to recovery and autonomy, current resource allocation decisions are made around program development goals and models of care by referencing descriptors of costs, as opposed to utilizing data to demonstrate subsequent budgetary savings to the system.

In the current context of practice in mental health and substance use services, it is an increasing challenge to make the case for occupational therapy due to the understandable pressure on our public health care system to react to more urgent situations, such as the opioid and housing crises. Implementing a recovery approach can take time. Clients who experience mental health and substance use symptoms often require ongoing support for goal attainment, which involves either direct hand-over-hand interventions or a coaching model that is quite different from those used in other practice areas in which it is more common to address challenges in ways that require less time (e.g., through adaptive aids or prescriptive exercises for the improvement of hand function following a stroke). Occupational therapy services in mental health and substance use are not linear, as relapse of mental health symptoms or substance use is a normal part of recovery. However, the overall value of occupational therapy and the way it can ultimately lower costs for the system can be significant.

Health forecasting data: An approach with potential

The use of health forecasting data would be a creative way

to project health care spending from a proactive frame of reference as opposed to our current reactive methods (Soyiri & Reidpath, 2013). Although the literature about health forecasting is generally limited to specific diseases and demographic groups such as diabetes, chronic obstructive pulmonary disease, and the aging population, some examples exist with respect to mental health services. The Mental Health Commission of Canada (MHCC; 2017) provided a summary of literature that outlined programs with cost-saving potential. For example, Roche and colleagues' (2008) study reported a cost savings of $938 per person over a period of four years with the use of a child and youth mental health program, which translated to a savings of $3,902 for publicly funded programs. In another example, Horton and colleagues (2012) reported a cost savings of $21 per day when diverting individuals from the emergency department by offering them a single counselling session, in comparison to the costs associated with an acute care overnight stay.

In the MHCC's literature summary (2017), there was a prevalence of material addressing program-specific cost savings, as opposed to profession-specific cost savings, with the exception of some that addressed psychology and counselling. Is there a way to generate economic data on the differences in health care costs associated with occupational therapy services that ultimately demonstrate success transitioning clients out of the mental health system, in comparison with keeping clients in inpatient settings, such as with occupational therapy services related to vocational rehabilitation, life skill development, or housing? Could a health forecasting approach be used for occupational therapy services specifically, that is, to outline both the needs of clients with mental health and substance use challenges and the services provided across the lifespan, in order to demonstrate overall cost savings to the public health system?

Aligning occupational therapy with social determinants of health

Occupational therapy models are well aligned with social determinants of health (Mikkonen & Raphael, 2010), with two concrete examples being employment and education. If an individual is unemployed, financial stress increases risk for illness; the poorest 20% of Canadians are twice as likely to be diagnosed with two or more chronic health conditions in comparison to the richest 20% of Canadians (Public Health Agency of Canada, 2011), which in turn places increased economic stress on health care systems (Canadian Council on Social Determinants of Health, 2013). Investment in education is also a strong predictor of improved health and quality of life (Low & Dow, 2006).

I have been able to demonstrate the utility and flexibility of the occupational therapy role in the role of a concurrent disorders therapist on an ACT, using an occupational therapy lens and harm reduction approach to increase and maintain function while individuals were using substances. For example, when working on objectives around housing or employment, I worked with my clients on goals related to accessing safe supplies as well as on establishing daily routine and time management around substance use to ensure that housing and employment were not placed at risk. In another example, while recently developing a service delivery model for a new pain clinic, I was able to articulate the benefits of utilizing occupational therapy services versus those of other professions, outlining our ability to apply our therapeutic interventions to decrease days of productivity lost, whether related to returning to work or to the role of primary caregiver. Although occupational therapy is not necessarily always considered for pain management programs, the occupational therapy profession was recently selected as the appropriate profession to provide cost-effective services in this area.

What are the implications for occupational therapists' competencies?

As resource pressures mount, there is a constant need for occupational therapists to balance decision making within their roles to meet the needs of their clients in a reactive system while trying to stay true to our profession's values of prevention-oriented and sustainable care. Given the limited economic evidence available, it is even more challenging to stay true to the principle of providing service not only to individuals but to their surrounding communities as well. Cost saving measures are a common topic of conversation in my position as I liaise with operational managers and directors; however, the dearth of economic evidence and evidence-supported defined occupational therapy roles presents a great risk, in that other disciplines (e.g., social work, nursing, psychology, vocational rehabilitation) will begin to define roles for us. My point is not in any way to minimize the important roles of these other professions; rather, it is that some of these other disciplines have done a better job than occupational therapy of outlining their roles and services in the literature and in explaining them to the general public.

I have worked with my colleagues in advocacy roles and in academia to make them aware of the current challenges facing our profession in mental health and substance use, as they may or may not come from a background in mental health and substance use or are not occupational therapists themselves. It is important to prepare our future occupational therapists to align the care they are providing with social determinants of health, not only with respect to transitional services and the empowerment of clients with illness self-management skills, but also with respect to broader dimensions such as education, employment, food security, housing, and the social safety net (Mikkonen & Raphael, 2010).

We need to clearly define our role in the research evidence base as well as in a way that our health care system understands. This latter point is particularly relevant in our health authority, given our program management model in which the clinical supervisor or manager of a team may not be an occupational therapist. Some key competencies to support clear role definition include having strong clinical reasoning and analysis skills, translating these into written documentation, and consistently utilizing outcome measures

to demonstrate functional improvements at the client and environmental level. In my work on the professional practice team, I work with occupational therapists to support their ongoing competency development. I utilize all opportunities to coach and inspire these therapists, as well as to provide feedback to not only develop their written documentation to include stronger language around clinical analysis, but also to try to encourage and empower them to document with confidence. Using confident language such as "requires" rather than "will benefit from" demonstrates a "must" for overall care versus a "nice-to-have"; using a strong documentation style also encourages maximal use of quantitative, standardized measures in conjunction with informal observations. Although the economic evidence base related to occupational therapy continues to evolve, I believe that clear role definition can also be accomplished by demonstrating our scope through everyday documentation.

Conclusion

In conclusion, my recommendations are as follows:

- continue to liaise with profession-specific advocacy groups and academia to clearly define the occupational therapy contribution to mental health and substance use services;
- advocate to funding sources and government regarding how occupational therapy is a cost-saving service through a health forecasting model;
- develop competence and confidence in entry-level clinicians, including through providing education around leadership and emerging roles in health care;
- have frontline occupational therapists articulate how occupational therapy can assist and support clients with increasing their autonomy and achieving functional goals, as a means of transitioning them through the health care system;
- advance research on evaluating outcome measures specific to occupational therapy in relation to health care trends, in order to better define the profession's role.

The occupational therapy contribution is not isolated to one area, given our consideration of all occupational performance components, as well as the intricacies and impacts of the environment, thus aligning with social determinants of health. Therefore, moving forward, the economic evidence needs to not only highlight cost saving measures when comparing aggregate data for inpatient stays, but also how occupational therapy services that help clients maintain housing and employment, return to or complete education, reduce substance use, or decrease contacts with the criminal justice system are all cost-saving measures that directly impact health and are worthy of investment. Within all these areas, we are increasing individuals' functional abilities and enabling them to participate in occupations that promote self-efficacy and the reclamation of purpose and their own identities.

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Is it cost-effective to promote older adults' social participation? Using the results of economic studies to broaden your practice

Pier-Luc Turcotte, Annie Carrier, and Mélanie Levasseur

Social participation restrictions among older adults are associated with increased use of health services and related costs (Shaw et al., 2017). To minimize these expenditures, in the context of an aging population, occupational therapists can contribute to collective prevention efforts by promoting older adults' social participation. Defined as the involvement in activities that provide interactions with others in the community (Levasseur et al., 2010), social participation is a key determinant of active and healthy aging (Gewurtz et al., 2016). However, it is difficult for occupational therapists to promote social participation, particularly because of economic pressures (Carrier et al., 2016). Having encountered these challenges in my home care clinical practice, I contacted a research team to carry out a participatory research study aimed at rethinking our occupational therapy practices in home care. Our study identified that there are obstacles to delivering social participation interventions (Turcotte et al., 2018). We also found that one of the potential facilitators is the availability of economic studies demonstrating the cost-effectiveness of such services. In addition, since economic discourse occupies an important place in health services, it is essential that occupational therapists become familiar with economic studies targeting social participation interventions. To support occupational therapists working in home care who wish to implement such interventions, this article aims to propose ways of identifying, interpreting, generating, and using the results of economic studies, using older adults' social participation interventions as an example.

Identifying economic studies

In order to obtain economic studies related to social participation interventions, we conducted a scoping literature review, involving key partners in home care services (Turcotte et al., 2018). Using specific research questions and a variety of key words, scientific literature was selected from eight databases. Of the resulting articles, 19 studies were selected, four of which contained economic data. The selected studies described occupational therapy interventions aimed at promoting older adults' social participation. Studies that did not sufficiently describe the occupational therapists' particular contributions were excluded. Studies that contained economic data mainly assessed the cost/utility ratio of occupational therapy practices offered to older adults in the community, that is, the cost of obtaining benefits compared to that of other types of interventions.

These four studies compared the cost-effectiveness of three types of interventions (Table 1). The first two studies focused on *Lifestyle Redesign*®: a preventive occupational therapy intervention that combines group and individual sessions to develop a healthy and meaningful lifestyle for older adults (Hay et al., 2002; Clark et al., 2012). The third study focused on a group-based occupational therapy intervention aimed at promoting the occupational engagement of older adults at risk of social isolation (Zingmark et al., 2016; Table 1). The last study evaluated a support intervention for caregivers of older adults with dementia in an individual context (Graff et al., 2008). While this type of literature review may seem difficult to achieve in the practice setting, occupational therapists may find it useful to identify economic studies relevant to their context, particularly by verifying their research questions with researchers or information scientists.

Interpreting the results of economic studies

To interpret the results of the selected economic studies, the recommendations of Drummond and colleagues (2015) were considered (see articles by Duncan and Larivière [p.10] and Metge [p.13] in this special issue). In light of these recommendations, the selected four studies demonstrate social and individual economic benefits, and support the relevance of occupational therapy services.

Given that the cost-effectiveness threshold – that is, the cost at which an intervention is deemed economically viable – may vary from one setting to another (Drummond et al., 2015), economic studies must be interpreted in a contextualized way. According to the cost-effectiveness threshold reported in studies set in a variety of contexts, the three interventions evaluated were economically viable. However, as they have not been the subject of a study comparing the interventions to one another, no consensus has been reached on the interventions most likely to be viable (individually versus in groups). Moreover, depending on the analytical perspective used, each study did not take into account the same costs, making the results more or less comparable. In addition, since the currencies used varied from one study to another, their transferability to the current Canadian context may be questionable. Nevertheless, the

Table 1
Economic studies on occupational therapy interventions in older adults' social participation

Author (year) Country *Name of the intervention*	Economic evaluation design •*Sample* •*Analysis perspective*	Context *Duration*	Economic impact
Combined group and individual interventions (n = 2)			
Hay et al. (2002) United States *Lifestyle Redesign®*	Cost-effectiveness RCT Group 1: occupational therapy intervention; Group 2: social activities; Group 3: control (regular treatment); *n = 163 older adults* *Perspective: societal*	Community *Nine months, weekly group sessions of 2 hours and 9 hours of monthly individual sessions with two occupational therapists and up to 10 older adults*	Significant gain in healthy life years of 4.5% ($p < 0.001$); Cost per healthy life year estimated at $10,066 US per group
Clark et al. (2012) United States *Lifestyle Redesign®*	Cost-effectiveness RCT Group 1: occupational therapy intervention; Group 2: control (regular treatment); *n = 137 older adults* *Perspective: not described*	Community *Six months, weekly group sessions of 2 hours and 10 hours of individual sessions with an occupational therapist and between 8 and 10 older adults*	Significant gains in healthy life years of 3.8% ($p < 0.05$); Cost per healthy life year estimated at $41,218 US per group
Group intervention (n = 1)			
Zingmark et al. (2016) Sweden	Cost-effectiveness RCT 1) Individual group (IG) ; 2) Activity group (AG) ; 3) Discussion group (DG); 4) Control group (regular treatment); *n = 177 older adults* *Perspective: societal*	Community *IG: 3-8 individual contacts (telephone, home visits) spread over a period of 10 weeks;* *AG: eight group sessions of 90 minutes alongside 5-8 older adults;* *DG: one group session of 2 hours with 7-9 older adults*	Significant gains in healthy life years for AG of 0.6% after 3 months ($p < 0.05$); Significant gains in healthy life years for DG of 0.7% after 3 months ($p < 0.05$); Significant reduction in health costs for DG after 3 and 12 months ($p < 0.05$); Total avoided costs for DG after 3 and 12 months, estimated at 1100 Euros per person ($p < 0.05$)
Individual intervention (n = 1)			
Graff et al. (2008) New Zealand	Cost-benefit RCT Group 1: occupational therapy intervention; Group 2: control (regular treatment); *n = 135 dyads (older adults and caregivers)* *Perspective: societal*	Community *Five weeks, 10 individual sessions in the presence of an occupational therapist*	Health costs avoided, estimated at 1748 Euros per person (CI: 95%)

RCT: Randomized Controlled Trials; CI: Confidence Interval

results of the selected economic studies indicated that occupational therapists could achieve more lasting results in improving the health of older adults by combining the two types of interventions (individual and group).

Generating economic data

Since there are few economic studies, it is important for occupational therapists to help generate them, including participating in evaluative research. In this example, evaluative approaches may be relevant for analyzing the costs associated with implementing occupational therapy practices that promote older adults' social participation. These approaches can be used to account for the costs of desired practices (e.g., occupational therapists' salaries, travel costs for occupational therapists or older adults). These approaches also allow for the calculation of costs related to hospitalizations, emergency room visits, and other health services that will have been avoided through occupational therapy interventions.

More precisely, occupational therapists can establish partnerships with researchers, managers, and members of community organizations in their practice settings. As health care facility budgets are public, occupational therapists can document the costs of their services with the help of their managers. By adopting a societal perspective rather than just that of a health care facility, the data relating to direct costs (e.g., expenses incurred by the intervention) and indirect costs (e.g., productivity losses of a caregiver, due to work absences) can also be accounted for. This way, occupational therapists can ask clients to compile, in a calendar or logbook, the health care services they used prior to the intervention that is to be implemented, as well as throughout its implementation. To justify the time required to promote social participation, performance indicators for occupational therapists can be chosen to better capture all the direct and indirect impacts of interventions. Considering the economic studies available on occupational therapy interventions, such evaluative approaches should help to stimulate the interest of decision makers in the development of social participation initiatives.

Using the results of economic studies

To make use of the results from economic studies, occupational therapists can call on their role as change agents to convince managers to incorporate innovative practices. In this sense, occupational therapists can benefit from using their effective communication skills to demonstrate the economic benefits of their interventions and forge partnerships with their managers and members of the community.

The results of economic studies on occupational therapy services can be used to, among other elements, justify the choice of occupational therapy over other, less expensive, human resources. For example, it may be a matter of adapting the message to the person concerned, by comparing the cost-effectiveness of current occupational therapy practices to that of occupational therapy interventions that have been demonstrated to be economically viable. Furthermore, during our participatory research involving occupational therapists, managers, service users, and members of community organizations, community stakeholders emphasized their interest in supporting occupational therapists in their interventions. To do this, occupational therapists and members of community organizations could establish partnerships to better target and support older adults living with social participation restrictions. These partnerships could potentially relieve occupational therapists and allow them to spend more time in direct interventions with their clients. They could also help reduce some direct and indirect costs. By appropriating the economic language and by surrounding themselves with allies to implement innovative practices, occupational therapists can ensure the full deployment of their prevention skills.

Conclusion

In this article, using older adults' social participation interventions as an example, we have proposed concrete ways of using the results of economic studies to broaden the scope of occupational therapy practice. Based on a comprehensive review of the literature, the described participatory approach allowed us to highlight economically viable practices, including group modalities, and create a favourable context for implementing them in home care. As a clinician, this approach helped me become more familiar with the economic realities at stake, and be aware of existing economic evidence that validates and supports these innovative practices. I have also realized that there are relatively easy ways of documenting the implementation costs. In the context of an aging population, it is more important than ever to be surrounded by allies in the implementation of innovative occupational therapy practices.

Acknowledgments

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Occupational therapists and patient flow: Important contributions and opportunities to make a difference

Mark Blandford

I am an occupational therapist and administrator of a 330-bed tertiary general hospital in Victoria, British Columbia. I believe that the skills I use to address the complexity involved in running a hospital are much the same as those that occupational therapists use to support their clients. A hospital is a multi-system entity, and, as with clients, there is no single solution to a given problem. Just as the physical, psychological, environmental, and social components of occupation can influence an individual's success in rehabilitation, so do factors like population, economics, collective agreements, medical advances, and politics affect a hospital's ability to achieve its goals.

My skills as an occupational therapist have had much to do with any success I may have had running a hospital as any leadership training I have undertaken. As the world struggles to find cost-effective ways to deliver efficient and effective health care, occupational therapists should realize that they can provide more than direct services to clients, crucial though this role is. In this article, my goal is to share two key insights. First, occupational therapists are often natural leaders. Their professional mindset and the way in which they assess and support clients make them naturally predisposed to managing complex health care delivery system issues. Second, their skills can be applied to positively influence one of the biggest economic challenges facing the acute care system, that is, managing bed occupancy and overcapacity.

As an acute care hospital leader, although I have to be concerned about many things, foremost in my mind is ensuring the delivery of excellent care, to every patient, all the time. This goal is closely followed by the aim of fostering a professional environment that is an excellent place to work for practitioners and staff. It is very possible to achieve these goals; however, of all the multitude of barriers to doing so, there is one overarching issue that keeps me, and, I guarantee, the person who runs the hospital you work in, awake at night: hospital patient flow.

Patient flow

Managing patient flow involves needing to discharge more people out of the hospital on a daily basis than are admitted. If a hospital cannot accommodate the sick and injured people coming in, its processes will grind to a halt, leaving the goal of delivering excellent care far off in the distance. As for the goal of having a hospital be an excellent place to work, I'm afraid that in circumstances of unmanaged patient flow, this is a "pipe dream." Patient flow is currently a major challenge in acute care settings across Canada and the United States. Many practitioners see this issue as simply stemming from a lack of funding—although funding is a significant factor, failure to manage patient flow is about much more than money. Other factors that influence flow include the lack of primary care physicians and urgent community care supports available for patients, which means that they are reliant on acute care hospitals to care for conditions that could be managed by a primary care provider in the community. Additionally, most jurisdictions lack adequate nursing home/long-term care options, which can lead to patients staying in acute care hospitals for extended periods of time while they wait for a residential bed. In the view of many, myself included, although adding more acute care capacity to our hospitals through additional funding is an option, it is the least preferred approach because it undermines efforts to strengthen the various community options (Rutherford, Provost, Kotagal, Luther, & Anderson, 2017). Strengthening and increasing primary, nursing, and rehabilitation care in the community, coupled with providing education to improve the public's understanding as to when expensive acute care resources are actually required, ultimately comprise a better long-term solution.

The cost of failing to manage flow can mean poor care outcomes for patients, as well as high levels of stress and reduced job satisfaction for staff. Adverse patient care events such as medication errors are also much more likely to occur when flow is not well managed. Administratively, the impact of poorly managed flow, where a hospital has to support more patients than it is designed or funded for, is escalating costs. For example, in my hospital, we are funded to provide care for 330 beds but are regularly forced to manage 360-380 patients. At approximately $1,200 per day per client, the cost overrun mounts up very quickly. This also means that I will not have funds to do other more strategic and proactive things (e.g., hire more occupational therapists and other proactive rehabilitation personnel). I am regularly lobbied by staff who implore me to add more resources to a particular program or service that would arguably speed patients along the care pathway and out of the hospital. The fact is that the pressing urgency of sick patients being cared for in hallways or waiting

in the emergency room (ER) means I am frequently forced to devote money, energy, and resources to emergency services to care for these patients rather than spend on proactive resources to prevent such issues in the first place.

Thus, for most acute care hospitals, daily focus and effort are required to ensure optimal patient flow (Bender & Holyoke, 2018). Hospitals like mine are no exception; our hospital has operated on most days at an average of around 110% of its funded capacity—that is, a minimum of 33 extra unfunded beds open every day. On many days, this is easier said than done, and the pressure to achieve this goal weighs heavily on the management team. Simply put, the effects of failure to manage hospital flow mean that advancing care is impossible.

How occupational therapists can help improve patient flow

In my health region, we have implemented many innovations to deal with issues around flow; getting occupational therapists to work differently has been one component of our strategy. This approach is congruent with my belief that rehabilitation professionals working in creative and proactive ways and taking leadership roles in flow management can make a significant difference. For example, in Victoria, we have been experimenting with using occupational therapists to tackle three discrete aspects of the flow problem: (1) reducing unnecessary admissions through the ER; (2) initiating early active rehabilitation plans from the ER for frail elderly clients; and (3) supporting the early discharge of complex neurology rehabilitation patients. I will describe each of these three approaches/interventions in detail below. We have been able to demonstrate that because of the way in which occupational therapists practice, and more importantly *think*, they can have a significantly positive impact on hospital flow.

1. Reduction of unnecessary admissions

In the ER, frail elderly patients with multiple comorbidities frequently present a dilemma for ER physicians (ERPs). ERPs have to act quickly; by default, they are trained to make quick decisions and move on to the next patient. In the case of frail elderly patients, once the immediate presenting medical issue has been dealt with, the ERP frequently faces the dilemma of (a) admitting the patient to the hospital so that co-occurring problems can be sorted out or (b) discharging the patient home and risking that an unresolved mobility, social, or environmental challenge, or difficulty with activities of daily living, will cause the patient to return to the ER. In a busy ER environment, ERPs need to be reassured that this type of patient is safe to go home, and quickly, or they are forced to admit. When admitted, this kind of patient rarely experiences a short stay, and the chances of them ultimately needing a higher level of care increases—exponentially increasing their hospital stay. From a hospital flow perspective, this is a crucial point of decision—admission typically leads to 15 to 30 bed days if the patient goes home afterward and many more if she or he is assessed as needing subsequent nursing home placement. **Alternate level of care** (ALC) occurs when patients are not yet admitted to the health care setting most appropriate for their clinical needs and are waiting to be transferred to their discharge location (e.g., a nursing home). We measure ALC as a percentage of total bed days: a 10% ALC means 10% of beds contain patients waiting for other placements. A high rate of ALC means we are failing to move patients in a timely manner from acute care beds to more suitable beds, resulting in fewer acute care beds out of which to work. At our hospital, we average between 7-10% ALC; this is considered good, insofar as many hospitals are at 15% or higher. This high percentage means that 10-15% of the hospital's capacity is effectively not accomplishing the main purpose of an acute care hospital—treating acutely ill patients—and severely compounds the flow problem.

A 2017 study by the Canadian Institute of Health Information (CIHI; 2017) revealed that the highest predictor for a move to nursing home-level care is a hospital stay; approximately 30% of all clients placed in a nursing home from hospital exhibit a functional profile that could be managed in the community with enhanced support. In my region, we are extremely efficient at moving people from acute care to nursing homes, but we also recognize that more patients could probably go home than do. The reduction of unnecessary nursing home placements is a key objective; to combat this problem, conversations around discharge needs and options need to start as early as possible with clients and families.

Our approach has been to have occupational therapists conduct a detailed assessment of cognition, mobility, and social barriers to having a person return home at the point of entry in the ER. Working with a nurse specializing in geriatrics, a discharge nurse, and a home care team, two occupational therapists support one to three patients per day in being directly discharged from the ER. This result may seem like a small number relative to the overall scale of the flow problem; however, the bed days saved and the prevention of possible ALC scenarios is priceless and well worth the investment.

2. Early occupational therapy intervention to decrease ALC conversion

In cases in which an acute care admission from the ER is necessary, an occupational therapist meets with the patient and family immediately after the decision to admit has been made. The overarching goal of this approach is to reduce the likelihood of an ALC "conversion" once the patient arrives on a floor. Transfer from the ER to a proper bed can sometimes take 10 to 20 hours. During that period, family members of such clients (if available) are likely to be present in person, which makes it an ideal time to fully obtain the clients' baseline pre-admission functional status. This assessment means that the floor team will know what they are aiming for in terms of outcomes immediately upon the patient's arrival.

Through the use of this approach, the occupational therapist is preparing family members for the patient's return home when the time is right and giving the client confidence that "we can fix this together and get you home." This isn't easy, in that many families are convinced that being in hospital is the best thing for their loved one; although this is true when

one is acutely ill, it is less so once that acute phase has passed (considering the negative consequences that can stem from hospital stays, such as falls and hospital-borne infections). The value of conversation facilitated by a skilled therapist *at the point of admission* cannot be underestimated as a strategy to reduce inpatient bed days and prevent a needless ALC conversion. Although I believe that this strategy has led to a definite reduction in ALC bed days, such is the complexity of capacity and flow that it is hard to draw a conclusive connection between one intervention and the ultimate goal. However, throughout the winter of 2018 (hospital capacity typically surges during the winter months) we have managed to sustain an ALC rate of 9% at our hospital when we usually see it spike to 11%—this rate is promising and provides us with success upon which to build.

"Many occupational therapists don't realize the power that their professional education and experience has to tackle the very real economic challenges caused by the overcapacity facing our health care system today."

3. Early supportive discharge

Our third intervention, undertaken with clients who have experienced a brain injury or cerebrovascular accident (CVA), has been instrumental in saving approximately eight inpatient bed days per client. Essentially, an occupational therapist and a speech-language pathologist create a home-based rehabilitation plan for selected clients and navigate them home early by providing their final week of therapy in the client's home. Again, collaboration with home care teams and, in particular, the delegation of rehabilitation tasks to rehabilitation assistants, is elegantly simple but hugely effective. Originally proposed by an occupational therapist and speech-language pathologist, this service challenges the very notion that some clients can only have their rehabilitation delivered in an institutional setting. A total of 509 bed days were saved in a 12-month period; the importance of this program's positive effect on patient flow at our hospital cannot be overstated. We are a tertiary neurological hospital serving a population of 760,000, and on a regular basis, we struggle to transport neurological patients from outlying areas to the tertiary stroke unit. The saving of this number of bed days in tandem with other activities, such those related to our aggressive transport and repatriation policy, increases the likelihood of patients reaching a specialist unit in time for it to make a difference.

Conclusion

The three projects discussed have really put occupational therapists on the map in my health authority, for doing work that had not been previously considered. The key to our success has been the innovation and leadership demonstrated individually by the therapists involved. They have shown tenacity and creativity, reflecting the training and skillset of all occupational therapists, which makes a difference. The holistic and practical nature of occupational therapy, alongside occupational therapists' ability to see the big picture from a client's point of view, as well as take into account the environmental dimension, make it the discipline of choice when dealing with issues of patient flow, unnecessary admissions from the ER, and unnecessary transfers to nursing home care from hospital. Many occupational therapists don't realize the power that their professional education and experience has to tackle the very real economic challenges caused by the overcapacity facing our health care system today.

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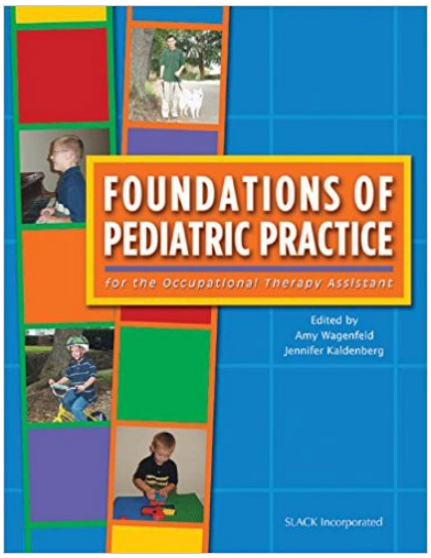
Book Review



Wagenfeld, Amy, Kaldenburg, Jennifer, and Honaker, De Lana. (2017). *Foundations of Pediatric Practice for the Occupational Therapy Assistant* (2nd ed.). Publisher: Slack Incorporated. 496 pp. CAD $100.76, can be purchased through Amazon.ca, Amazon.com, and Amazon.co.uk.
ISBN 978-1-63091-124-9

The comprehensive new edition of this text delivers highly relevant material applicable to both the novice occupational therapist and occupational therapist assistant working in the pediatric setting. This text makes a significant contribution to the field through its well organized and well researched sections on various interventions, all with an unwavering occupation-based approach to clinical goals, treatment, and documentation.

Ambitiously, this text provides an overview of the history of the professions of the occupational therapist and occupational therapist assistant, their foundations, relevant models and theories, ethics and the practice context, human development, and developmental conditions. The text further delivers chapters on key intervention areas, such as positioning, sensory integration, feeding, play, self-care, vision, hand development, handwriting, early intervention, preschool and school-based therapy, pediatric services in various settings, mental health services, technology, and orthopedic intervention. A new addition to the text is a chapter on childhood trauma, which, while brief, offers relevant background and a valuable introduction to this area.

Throughout the text, there is care taken to delineating the occupational therapist role and the occupational therapist assistant role, highlighting accurately the responsibilities and the strengths of each role and the collaborative nature of the relationship between these professionals in various contexts. Responsibilities and scopes of practice are reviewed in relation to various intervention areas.

The authors include case studies and suggest practical applications, offering clinically sound examples that emphasize and encourage a sensitive and thoughtful consideration of contextual variables that influence practice, such as family systems, cultural variables, collaborative models of intervention, and funding considerations, as well as relevant practice models, ethical principles, and regulations. Considerations that a Canadian reader should take into account include this text's focus on American systems, regulations, and funding structures. The Canadian reader must consider differences in practice context, for example in school health delivery models, while applying relevant interventions, research, and best practices.

The functional focus of this text provides "stories from practice" and cases that ground conceptual ideas in an accessible, engaging, and practical manner for both the occupational therapist and the occupational therapist assistant. The practical examples and guided reflective exercises will resonate with the experienced practitioner and provide a sound real-world lens for the novice clinician.

Review by Teresa Avvampato, OT Reg.(Ont.)

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Guest Editor: Kevin Reel, BSc(OT), MSc(medical ethics), OT Reg. (Ont.), Assistant Professor, Department of Occupational Science and Occupational Therapy, University of Toronto.

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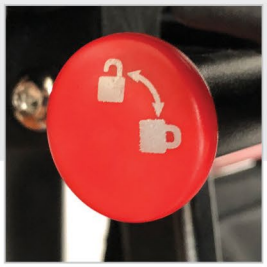

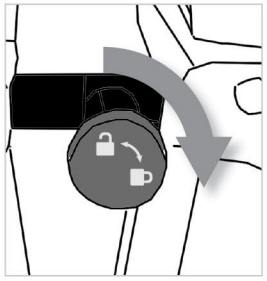

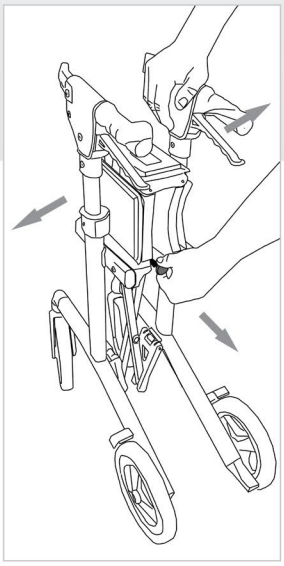

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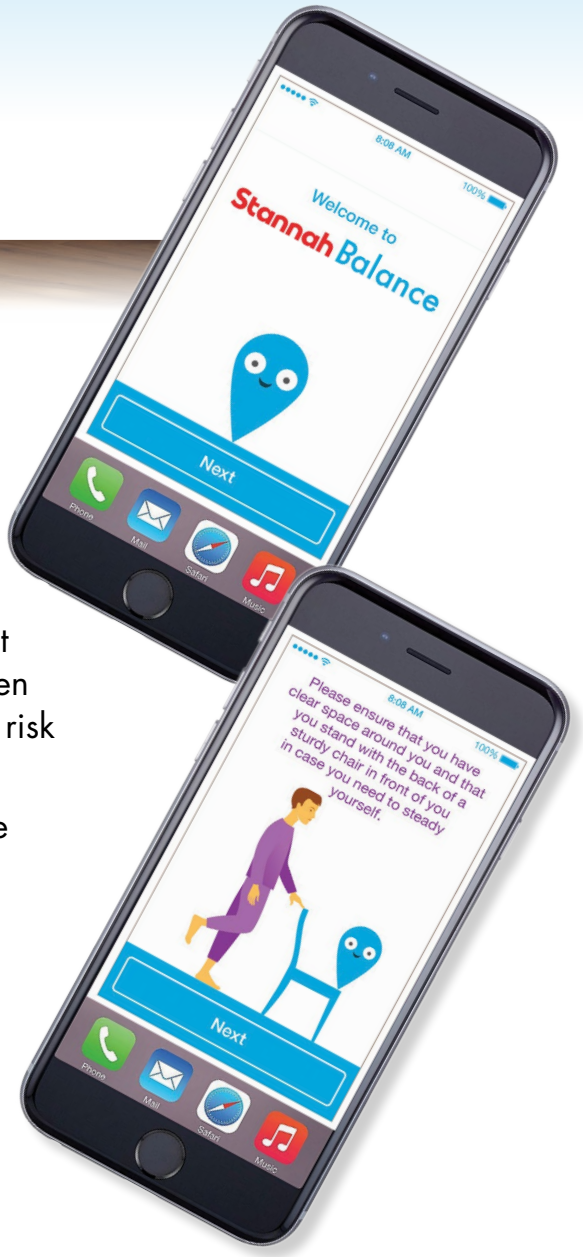

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