

A call for sustainable practice in occupational therapy

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Abstract

Background. The ability of the earth to sustain health among humans and in the natural world is under threat from overpopulation, environmental degradation, and climate change. These global threats are anticipated to harm health and human occupation in many direct and indirect ways.

Strategies are needed to mitigate the effects of these threats and to build individual and community capacities to foster resilience. **Purpose.** This paper links issues of sustainability with occupational therapy philosophy and discusses how employing a sustainability lens with professional reasoning can help practitioners integrate sustainability into their practice. **Key**

Issues. Human occupation is inseparable from the environments in which people live. Human occupation has caused the current environmental crisis, and targeted human action is required to safeguard future health and well-being. **Implications.** Occupational therapists have an ethical obligation to use professional reasoning strategies that, taken collectively, can help to build a

sustainable and resilient future.

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A basic belief shared by occupational therapy practitioners is that human beings have the right to engage in occupations that are important and necessary to their health and well-being (Kielhofner, 2009). Occupational therapy practitioners have long understood the influence that the environment has on an individual's occupational performance (Dunn, Brown, & McGuigan, 1994). However, the ability of the earth to sustain an environment that allows humans to thrive is currently threatened by overpopulation, environmental degradation, and climate change (Antsey, 2013). The World Federation of Occupational Therapists (WFOT) challenges occupational therapists to foster client participation while simultaneously promoting a sustainable environment (WFOT, 2012). Despite this challenge, occupational therapy associations in only a few countries to date have developed concept papers on integrating sustainable activities into practice (see College of Occupational Therapy, 2013; Swedish Association of Occupational Therapy, 2012). The purpose of this paper is to present a compelling argument to occupational therapy practitioners to embrace sustainability in their practice to positively influence individual and global occupational health.

In this article, we first discuss how human occupational health is affected by global environmental issues and define key terms. Next we discuss conceptual theories and practice models that focus on the critical importance of the environment on occupational performance. We then call on occupational therapy educators and practitioners to broaden their understanding of environment to include acting and practicing in ways that demonstrate an understanding of and a commitment to global sustainability movements. Finally, we present a case scenario that illustrates the relationship between the environment and health, illustrating how a sustainability

lens that considers social, environmental, and economic factors can be integrated with professional reasoning to support sustainability concepts in practice.

Impact of Global Issues on Human Health and Well-Being

The profession of occupational therapy supports the view that participation in occupation promotes health and well-being and is the right of all people (Wilcock & Townsend, 2008).

However, global environmental threats may present direct and indirect challenges to people in maintaining health-promoting occupations (Antsey, 2013). For example, direct effects of global climate change may include a greater frequency and intensity of extreme weather events (e.g., drought, excessive heat, floods, storms), reduced air quality, and greater spread of illnesses, such as those spread by ticks and mosquitoes (Health Canada, 2009; U.S. Environmental Protection Agency, n.d.).

These direct effects may result in personal injury and potential disability, and an increased incidence of respiratory and heat-related health problems. Secondary effects, exacerbated by environmental degradation and population issues, include food and water vulnerability, poor sanitation, unemployment, temporary displacement, and climate-related migration, which will likely have even greater effects on population health and human occupation (Costello et al., 2009).

Climate change and extreme weather events may expose individuals to traumatic experiences and chronic stress due to fear, economic challenges, and displacement (Fritze, Blashki, Burke, & Wiseman, 2008; Goldman & Galea, 2014). Displacement may result in disruption of occupational habits that support engagement in meaningful occupations (T. M. Smith, Drefus, & Hersch, 2011), or interruption of socialization patterns that individuals use to

help navigate times of difficulty. Migration often carries with it the loss of social, cultural, economic, and environmental factors that support physical health and emotional well-being (Huot & Laliberte Rudman, 2010). Traumatic events, including those that may be caused by displacement and forced migration, can result in psychological and mental health problems (Doherty & Clayton, 2011), including post-traumatic stress disorder (Paxson, Fussell, Rhodes, & Waters, 2012). The effects of traumatic events on an individual's ability to recover occupational health are affected by a myriad of other factors, including social, emotional, and financial resources. As Costello et al. (2009) have noted, "Climate change will have its greatest effect on those who have the least access to the world's resources and who have contributed least to its cause" (p. 1694), increasing inequity and challenging concepts of social and occupational justice. Those most vulnerable to the effects of climate change include those with disabilities and chronic illness, children, older adults, the poor, and the homeless (Health Canada, 2009)—populations that frequently receive occupational therapy services.

While the effects of climate change have the potential to disrupt occupations, it is also important to consider the role of human occupations on the environment. Thatcher (2013) considers a bi-directional relationship in which humans and the environment influence the health of each other. A recent major report by the Intergovernmental Panel on Climate Change (2014) noted that it is highly likely that human activity is the primary cause for global warming. Capon (2014) argues that human occupation has negatively affected the world's ability to support population health, and that health professionals must expand their view of health to include a planetary perspective.

Defining Sustainability

Given the role that humans have played, threats to the world's ecosystems can only be mediated by changing human behaviours. Christiansen and Townsend (2010) state that occupations consistent with sustainability involve environmentally friendly practices that minimize depletion of environmental resources, such as reducing consumption, recycling, and reusing materials rather than buying new. Although a common and popular term, sustainability can be difficult to define, as it is a broad concept that is applied in many ways. According to the U.S. Environmental Protection Agency (2013), sustainability has to do with ensuring that people can exist in harmony with the natural environment, and that the earth's resources will continue to be available in the future to support environmental and human health. Perhaps the most well-known definition of sustainability—also known as sustainable development—comes from the United Nations' 1987 Brundtland Commission Report (United Nations, n.d), which was incorporated into Canada's Federal Sustainable Development Act (2008): "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations, n.d., p. 16). Maintaining planetary health requires action on a number of fronts, including mitigation efforts, such as reducing environmental pollutants and decreasing carbon emissions, and adaptation, which is the ability of a system to respond successfully to environmental changes (Laukkonen et al., 2009). Another concept to consider is resilience, which represents the ability to "adapt to the turbulence ahead," recognizing that global resource consumption continues to grow despite sustainability efforts. Resilience acknowledges the dynamic systems in which we live, and focuses on the ability to plan for, respond to, and recover from the inevitable and potentially irreversible changes that will be faced, as climatic tipping points are reached (Hecht, Fiksel, & Moses, 2014). While scientists cannot fully predict

the impact of climate change, the small actions of each individual, multiplied by potentially millions (or even billions) of people, can indeed make a difference in the future of the well-being of the earth, and consequently, in the well-being of the people who live on it. It is important to note that the concepts of both sustainability and resilience stem from the human capacity to adapt, a concept at the very core of occupational therapy practice (Schkade & Schultz, 2008).

Sustainability Lens

Sustainability can be conceptualized as a decision-making framework that helps people, groups, and organizations navigate the many choices with which they are faced on a daily basis that shape their occupational performance and engagement (M. M. Brown, 2012). Every decision to be made can be viewed through a sustainability lens to help determine if the potential impact of that decision would be positive, neutral, or negative with respect to social, environmental, and economic outcomes. While it may not always be possible to make a choice that has an equivalently positive impact on each of these areas, it is hoped that, over time, one's understanding of the full impacts of a course of action may be deepened.

To further explain this lens, consider the context of a common scenario—purchasing a cup of coffee on the way to work each morning. If a person views the scenario through a sustainability lens that person might consider the negative environmental impact related to the decision to use a Styrofoam cup and disposable plastic stirrer. One might also consider the negative social impact of unfair labour practices on traditional coffee plantation workers. Additionally, one might reflect on the personal economic impact for opting for more costly organic, fair trade-certified coffee products or the community-scale impact of patronizing a locally-owned coffee shop instead of a chain shop. Using this lens to mindfully consider the

social, environmental, and economic impact of one's choices, this person could decide to modify habits by making coffee at home, or bringing a reusable travel mug to the shop, or supporting a local coffee shop that offers fair-trade coffee. Integrating a sustainability lens requires conscious effort at first; however, it can become part of a person's habit of mind over time and can minimize the negative impact on the three dimensions of sustainability. This process is a step toward mitigation and adaptation that were mentioned previously as key components of sustainability and resilience thinking.–

The Importance of Environment in Occupational Therapy

The WFOT (2012) defines the goal of occupational therapy as enabling participation in everyday life. Occupational therapy practitioners achieve this outcome by working with people and communities to promote occupational engagement by modifying occupations and the environment (WFOT, 2012). A review of definitions of occupational therapy of randomly chosen members of the WFOT reveals that most include the concepts of human, environment, and occupation (WFOT, 2013). These conceptual elements delineate the role and focus of occupational therapy. A belief included in most of these definitions is that the client, who can include the individual, group, or population, can achieve a state of health or wellness by engaging in meaningful occupation within a context or environment.

In conceptual models of occupational therapy practice, theorists posit relationships between the core elements of the person, occupation, and environment that guide clinical practice. Starting in the late 1980s, concurrent with changing notions of health and disability that followed from a shift in viewing health from a medical model to viewing it from a social or more interactive model, Western occupational therapy theorists proposed conceptual models that

described the interactions among clients, occupations, and the environment (Kielhofner, 2009). These ecological models emphasize the important role environment plays in influencing the occupational performance of clients (C. Brown, 2014). In the medical model, which dominated definitions of health until this time and continues to do so, health and disability are seen to reside within the client and interventions focus on fixing the person. In social models, which emerged from independent living and disability rights movements of the 1970s, health and disability are seen as resulting from interactions among clients and their environments (Burnett, 2013; Fougereyrollas & Beauregard, 2001). This interactional relationship is critical to more contemporary occupational therapy models that have come to guide current occupational therapy practice. In contrast to the medical model of disability, in which the focus is on curing the person, the social model provides practitioners with the option of altering the physical and social environments as treatment. For example, in the social model of disability, occupational therapy practitioners can attempt to change the social environment, which includes discrimination policy and attitude awareness strategies to increase inclusion of people with disabilities in all aspects of the built and social environment (Goodley, 2011). Policies regarding climate change and other factors that negatively impact occupational performance can be considered by occupational therapy practitioners as well, if the notion of the environment is expanded beyond the physical and social aspects of environment to include how broader institutional policies may impact occupational performance and engagement.

In the 1990s several Canadian and US based theorists, who still thought that environment was not given the same status that the client and occupation received in occupational therapy conceptual models, advanced a number of ecological models, for example, the Person-

Environment-Occupation Model (Law et al., 1996), the Person-Environment Occupation Performance Model (Christiansen & Baum, 1997), and the Ecology of Human Performance Model (Dunn, Brown, & McGuigan, 1994). The nature of these models was also influenced by the independent living and disability rights movements that advanced a social model of disability, previous occupational therapy conceptual models that moved beyond the medical model, and social science theories of Bronfenbrenner (1979) and Lawton (1986), who describe the importance of environment in social systems. These ecological models also include the clients and occupation as part of their consideration but they emphasize the importance of environment as facilitator or barrier to achieving health and wellness.

The most obvious aspect of environment is the physical environment, including the built and natural environments where we live, work, and play, but the environment includes a social aspect as well (American Occupational Therapy Association [AOTA], 2014a; Craik, Davis, & Polatajko, 2007). The social environment is multidimensional and includes support systems and sociopolitical influences that impact clients' occupational performance. For occupational therapy practitioners, a consideration of occupational performance and a client's ability to participate in meaningful occupations must be embedded within the environment where the occupation takes place. It is certainly not new to us as practitioners that stairs may be an environmental barrier to someone who uses a mobility device. Negative stereotypes about the capabilities of people with disabilities are equally obstructive social barriers. Healthcare regulations are also part of the social context, which may place restrictions on access to services. These social issues are highlighted in contemporary views of occupational justice in occupational therapy practice (Nilsson & Townsend, 2010) and the social dimension of sustainability (UN, n.d.).

Professional Reasoning and Sustainability

In the recent statement on environmental sustainability, the WFOT (2012) urged practitioners to “re-evaluate practice models and expand clinical reasoning about occupational performance to include sustainable practice” (p. 1). Clinical or professional reasoning refers to the processes that therapists use to plan, carry out, and evaluate client care (Schell, 2014). Occupational therapy practitioners use a number of different processes when considering interventions for the clients they serve (Schell, 2014). The complex environmental, economic, and social dimensions of sustainability require individual, community, and institutional action. The following case scenario will highlight opportunities to expand professional reasoning to include a sustainability lens, which was discussed earlier in this paper.

Case Scenario

You are a home health occupational therapy practitioner working with a 70-year-old woman at her independent living apartment located in a retirement community. She was recently discharged from the hospital following a hip fracture secondary to a fall that occurred in the community centre. A review of her medical chart reveals that she also has emphysema and uses a portable oxygen tank. Through the development of her occupational profile and analysis of occupational performance, you determined that her endurance and functional mobility continue to be limited. She is using a rolling walker but has to rely on others to push her in a manual wheelchair for long distances. Her main priorities are to be able to join her friends in the community dining room, participate in social events at the facility, and be safe and independent with functional mobility needed for activities of daily living (ADLs) and instrumental activities of daily living (IADLs) at the facility and in the community.

A typical course of occupational therapy would likely address these issues from an individual, client-centred approach. However, while evaluating the client in her apartment and around the retirement community, you make numerous environmental observations that are negatively affecting your client and have the potential to impact others in the facility who may be dealing with health and aging issues. There are long distances between the apartments and communal space with limited rest areas. All buildings are connected by walkways that are enclosed in glass, resulting in fluctuating temperatures, poor ventilation, and poor lighting (often excessively bright with glare). Dining room policies require that residents leave their mobility devices at the entrance due to space and aesthetics. You also note that the facility is located in an isolated part of town away from many community-based resources.

Professional Reasoning Through a Sustainability Lens

When considering the above case scenario, you note that all of the above-mentioned factors affect your client and, if you add the sustainability lens to your professional reasoning, you should consider the rights not only of your client, but of the residents of the retirement and broader communities as well. Your responsibilities extend further than merely meeting your individual client's physical needs to considering occupational and social justice issues. Your consideration of these broader responsibilities may allow your client and others in the community to engage in the things that they need to and want to do without negatively impacting others, the environment, or the economics of the situation. This kind of thinking is in line with recent arguments that occupational therapy must move from focusing solely on the individual's pathology to modifying our practices to serve communities and the environment (Iwama, 2013).

Pragmatic reasoning. Pragmatic reasoning, which involves dealing with the practical issues of implementing occupational therapy practice (Schell, 2014) can be used to address these bigger issues in the case scenario presented through both an occupational therapy and a sustainability lens. The overarching goal could be to enhance and promote occupational engagement while considering the social, economic, and environmental costs of each recommendation. For example, it could be recommended that the client use a loan closet to borrow a wheelchair and other needed equipment as opposed to purchasing the items. This option would help to keep abandoned therapy equipment out of the waste stream and could decrease the cost to users (Adler & Séguin, 2007; Li Pi Shan, Chrusch, Linassi, Sankaran, & Munchinsky, 2012; Vincent, Routhier, & Guérette, 2003). Obtaining therapy materials locally also reduces economic and environmental costs related to shipping. The client currently needs to rely on others to travel long distances in her manual wheelchair. While a first thought might be to look into acquiring and utilizing a powered mobility device, a sustainability lens would help the therapist to weigh the environmental, economic, and social costs with the client's desire for independent mobility.

Additionally, the therapist could use technological solutions to improve service such as employing electronic methods to store and send the client educational materials and using telehealth to supplement regular visits (AOTA, 2013; Canadian Association of Occupational Therapists [CAOT], 2011). Such a plan would foster environmental sustainability by reducing the use of paper, reducing reliance on fossil fuels, and decreasing emissions required for transportation to the client's place of residence (Yellowlees, Chorba, Parish, Wynn-Jones, & Nafiz, 2010). This plan would also be economically sustainable allowing the therapist to improve

access and maximize the impact of therapy while maintaining costs (Bendixen, Levy, Olive, Kobb, & Mann, 2009). Evidence is growing that similar plans meet with client satisfaction (Lindberg, Nilsson, Zotterman, Söderberg, & Skär, 2013) and promote coordination of care (Moyers & Metzler, 2014). While the educational materials may be focused on the individual's needs, electronic formatting lends itself to easy editing and environmentally friendly ways of disseminating the information to others in the future.

Scientific reasoning. Scientific reasoning in occupational therapy is a logical process that involves considering evidence-based interventions that will best address performance problems that the client faces (Schell, 2014). Using scientific reasoning with a sustainability lens requires expanding thinking about the individual alone to considering how actions will affect others as well. To make the hallway more usable for the client and for all residents, which in turn would promote sustainable community options, considerations might include alternative window coverings for glass hallways that can help to control temperature and ambient lighting, strategic placement of hanging plants to enhance air quality (Orwell, Wood, Tarran, Torpy, & Burchett, 2004), and the addition of benches for rest breaks (e.g., benches made from local and/or sustainable materials). Making common spaces in the facility more welcoming and inviting for residents not only promotes socialization but may have environmental and economic benefits as well. It may be easier to manage heating, ventilation, and air conditioning controls to maximize energy efficiency and reduce utility costs than to regulate occupant comfort levels of numerous individual rooms.

Ethical reasoning. Using ethical reasoning (Schell, 2014) and a sustainability lens (M. M. Brown, 2012), residents of the retirement community should be encouraged to reexamine the

facility's policy that prohibits the use of mobility devices in the dining area: the policy promotes stigmatization and occupational marginalization and may violate legal statutes (Span, 2012). This could be a potential area for the practitioner to encourage client self-advocacy as proposed by the Occupational Therapy Practice Framework (AOTA, 2014a). Advocating for one's own rights and for those of others is an important aspect of social sustainability and reflects the notion of occupational justice. Another aspect of advocacy relates to getting involved with professional organizations to promote sustainable actions. Occupational therapy practitioners can get involved in many ways and on many levels, but they also should be mindful that clients may find advocacy activities to be meaningful and empowering. Grass-roots community-based movements that advocate for change in policies at local levels can influence sustainable community practices (McKnight, 2013; A. Smith & Seyfang, 2013). Practitioners can encourage their professional organizations to support change by presenting at national and international conferences and writing in professional publications. In many countries, professional organizations represent practitioner concerns to legislative bodies. In the United States, practitioners can support the American Occupational Therapy Political Action Committee (n.d.), a political action committee that aims to influence federal policy. OT Susnet, a division of the Centre for Sustainable Healthcare (n.d.), in the United Kingdom, may provide resources and a model to occupational therapy practitioners, educators, and students who are interested in promoting sustainable activities.

Conditional reasoning. This case scenario could be taken a step further by considering the ability for residents to interact in the surrounding community. The occupational therapy practitioner could encourage access to public or shared transportation, restaurants and shopping

opportunities, and green spaces and other leisure areas. Acting on this thinking may result in community efforts to decrease greenhouse gas emissions and increased physical and mental health among people who live in the area (Capon, 2014). The examples provided here could be considered to be representative of conditional reasoning (Schell, 2014), where the therapist uses experience to consider the multiple aspects of the problem and constantly revises interventions to imagine a future for his or her client as well as for other residents. This kind of professional reasoning promotes the concept of a sustainable community and expands our thinking from a focus on the individual to include all of the aspects of occupational therapy that our conceptual practice models guide us to consider.

Primary Care Model Using a Sustainability Lens

If occupational therapy realizes a shift towards a primary care model, as has been endorsed by North American professional organizations (AOTA, 2014b; CAOT, 2013), it may become more feasible to address some of the above mentioned issues. The “triple aim” of primary care focuses on improving population health, reducing healthcare costs per capita, and improving client experiences (AOTA, 2014b). The goals of primary care are consistent with the social, environmental, and economic dimensions of sustainability. Increased focus on preventive and community-based services may support integration and reimbursement of occupational therapy practice that views professional reasoning with a sustainability lens. However, such a move will require educating ourselves and our students about primary care, getting involved in service activities related to primary care in our communities, and educating primary care physicians, other team members, and clients about the value of occupational therapy (Donnelly, Brenchley, Crawford, & Letts, 2013; Donnelly, Letts, Brenchley, & Crawford, 2013; Moyers &

Metzler, 2014). It will be critical to provide evidence that supports the efficacy and cost-effectiveness of occupational therapists' participation in primary care.

Conclusion

This paper has presented a sustainability lens that we argue can be integrated with professional reasoning to ensure that occupational therapy practitioners are considering global environmental issues. Expanding theories and clinical reasoning strategies that guide our practice to include a focus on sustainability makes sense given occupational therapy practitioners' understanding of the importance of environment and its impact on occupational performance and engagement. In addition to addressing issues related to individual client care in our day-to-day practice, occupational therapy practitioners should also consider ethical dimensions of the issues by utilizing the sustainability lens discussed in this paper. This lens encourages practitioners to focus on the consequences of our actions and consider our duties, responsibilities, and the morally correct action to be taken, which is an extension of ethical reasoning (Kanny & Slater, 2008). It is hoped that integrating a sustainability lens into professional reasoning will encourage practitioners to incorporate sustainable practices that help to build inclusive communities that promote occupational justice, where people can engage fully in the occupations of daily life (Townsend & Polatajko, 2013).

While many of us who practice occupational therapy are aware of social models of disability that guide us to focus our attention equally on the individual as well as environmental factors which impact disability (Burnett, 2013), we may function in an economic environment which primarily reimburses a medical model approach to health care. The choice is ours whether to continue status quo in this health care environment or revise our thinking and advocate for the

changes necessary to promote occupational health in the context of a changing global environment. One option presenting itself currently is to move occupational therapy into primary care settings, which may provide the impetus to allow occupational therapists to address global issues that impact the occupational health of our clients (AOTA, 2014b; CAOT, 2013).

While issues of sustainability are beginning to be addressed by occupational therapy professional organizations in Sweden (SAOT, 2012), the United Kingdom (COT, 2013), and by the WFOT (2012), there is much more work to be done. To make the changes that are needed to address global environmental health issues, occupational therapy practitioners worldwide must examine the evidence, consider their actions, and reframe professional reasoning to address sustainability issues. As noted by the WFOT's position paper on sustainability, it is imperative that occupational therapy practitioners collaborate globally to provide evidence about "sustainable occupational performance and occupational therapy practice" (WFOT, 2012, p. 2). A key message of the sustainability movement is to think globally and act locally. Occupational therapy practitioners have the power to initiate change in their personal actions, their workplaces, their communities, and their governments to ensure a sustainable and resilient future.

Key Messages

- Overpopulation, environmental degradation, and climate change present serious threats to human health and well-being.
- Existing theoretical perspectives and professional reasoning strategies can be expanded to reframe our thinking about the relationship between human occupation, the environment, and health.

- Occupational therapy practitioners are challenged to use this expanded thinking to incorporate a sustainability lens into their everyday practice, through individual and collective action.

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