

**Indigenous land-based interventions and nature-oriented wellness programs:  
Commonalities and important differences**

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**Abstract**

The importance of Indigenous mental health has been highlighted and affirmed by the Truth and Reconciliation Commission of Canada report (2015), the Canadian Psychological Association and The Psychology Foundation of Canada's Task Force report responding to the TRC findings (2018), as well as numerous recent studies. Unfortunately, Indigenous Peoples in Canada continue to suffer from a lack of appropriate mental health care. Land-based interventions have been cited as one culturally appropriate approach to wellness; nevertheless, given the diversity of nature-oriented wellness programs, confusion exists over the qualities unique to and common across each program. As such, this paper will discuss the qualities of nature-oriented wellness programs currently in use by Indigenous communities (e.g. land-based interventions) with land-based approaches outside of Indigenous communities such as forest bathing, Outward Bound programs, and green or blue space research. The authors will then explore what sets Indigenous land-based interventions apart from these other wellness programs and discuss why land-based interventions hold a deeper meaning for Indigenous Peoples.

**Keywords:** Indigenous; Land-based intervention; Forest bathing.

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Land-based interventions have been shown to be an important part of current mental health and well-being programs across many Indigenous communities in Canada. Walsh, Danto, and Sommerfeld (2018) explored the application of one land-based intervention in a Cree community in northern Ontario, and compared it with other land-based programs among Indigenous communities. That study reported that nature-based programs exist beyond Indigenous communities, and that these programs share some features with Indigenous land-based interventions (Walsh et al., 2018). To elaborate this finding, we now ask the question: In what ways are “back to nature” programs similar to, and different from, the land-based interventions within Indigenous communities? This article will explore commonalities and important differences across culturally divergent mental health approaches that rely on the natural environment.

### **Land-Based Interventions**

Within Indigenous communities in Canada, land-based interventions generally aim to improve health through the teaching of culture, engaging in traditional activities, fostering intergenerational connection, and re-connecting with the land (Walsh et al., 2018). Although First Peoples have relied on the healing nature of the land since time immemorial, the origins of the term “land-based intervention” are difficult to pinpoint. The current use of the term seemingly originated from healing programs that arose in Canada during the 1980s (Public Safety Canada, 2002). Though the majority of these early programs centered on alcohol addiction, newer programs focus on a wider range of issues and use different methods of operation, including greater reliance on traditional approaches to healing (Public Safety Canada, 2002). Currently, there are a growing number and variety of land-based interventions in place in Indigenous communities across Canada (Public Safety Canada, 2002; Walsh et al., 2018). Examples of traditional activities commonly found in these programs include hunting, trapping, fishing, outdoor navigation, smudging, singing, drum making, and using sweat lodges (Chisasibi Wellness, 2014; Dobson & Brazzoni, 2016; Department of Industry, Tourism, and Investment [ITI], 2014; Kwanlin Dun First Nation [KDFN] Justice Department, 2010). Through participation in these activities, connections between family, friends, and ancestors, as well as spiritual ties to the land, are strengthened, enhancing the sense of identity and improving the self-confidence of individuals and communities (ITI, 2014; Kirmayer et al., 2003; Radu et al., 2014; Robbins & Dewar, 2011; Roué, 2006; The Minister’s Forum on Addictions and Community Wellness, 2013). As a result, land-based interventions have been shown to decrease

rates of suicide, alcohol abuse, substance abuse, and mental illness for Indigenous Peoples (Chandler & Lalonde, 1998; Plaskett & Stewart, 2010). Furthermore, in addition to highlighting Indigenous ways of knowing, these interventions address and seek to mend the intergenerational trauma created by residential schools, and are important contributors to the process of decolonization (Wildcat et al., 2014).

Indigenous land-based interventions often highlight the unique primordial, spiritual, and mutual caretaking relationship between First Peoples and the land (Robbins & Dewar, 2011). For instance, Danto and Walsh (2017) found that one community noted for its positive mental health outcomes spoke of their unique connection to the land as a significant factor in their overall health. Additionally, Ross (2014) emphasizes that Indigenous traditional lands are “...full of the stories of [their] people, and full of spiritual ties that provide nourishment and comfort” (p. 260).

Although Indigenous Peoples have a unique connection to the land, peoples of many divergent backgrounds recognize the land as healing. Numerous programs not affiliated with First Peoples emphasize that a lack of connection to the land is a source of stress and therefore seek to reconnect people to the land for therapeutic purposes. The following paragraphs will review the key features of some of these nature-based wellness programs developed outside of an Indigenous context.

### **Green (or Blue) Space Research**

Green/Blue space research explores the incorporation of green and blue spaces (e.g. parks, trails, gardens, ponds, lakes) into urban planning and design to improve the health of residents. The concept likely dates back to ancient times, where, for example, “...records of early Roman philosophers and physicians...show that walking in gardens, exposure to rooms filled with light, staying close to water, and other nature-based activities were effective [ways] to improve mental health and sleep” (Selhub & Logan, 2012, p. 11). During the industrial revolution, green spaces were seen as an escape from increasingly dark and claustrophobic cities (Selhub & Logan, 2012). In his 1865 report on Yosemite National Park, landscape architect Frederick Law Olmsted wrote that “...the enjoyment of scenery employs the mind without fatigue and yet exercises it, tranquilizes it and yet enlivens it; and thus, through the influence of the mind over the body, gives the effect of refreshing rest and reinvigoration to the whole system” (para. 32). An influential concept in this field is the Biophilia hypothesis, coined by Erich Fromm (1973) as “...the passionate love of life and of all that is alive” (as cited in

Williams, 2017, p. 21), which was then popularized in the 1980s by Edward O. Wilson who described it as “the innately emotional affiliation of human beings to other living organisms” (as cited in Terrapin Bright Green, 2012, p. 5). Another important contributor to this field was Roger S. Ulrich, who provided scientific evidence on the health benefits afforded to hospital patients who viewed a natural landscape (1984).

Modern-day studies have shown that being in and around green or blue spaces increases the likelihood of physical exercise and social interaction, improves cognitive function and mood, and promotes feelings of calm and restoration (Berman et al., 2008; Bratman et al., 2015; Hadavi, 2017; Harris, 2017; Nichols, 2014; Thomas, 2015; Volker & Kistemann, 2013; White et al., 2018). This area of research has been influential in decreasing the global disease burden, the economic burden of mental illness, the use of pills/medication, as well as increasing productivity (Cohen-Cline et al., 2015; Kristine et al., 2017; Mukherjee et al., 2017; Terrapin Bright Green, 2012; Thomas, 2015; White et al., 2018; Wood et al., 2017).

### **Outward Bound Programs**

Outward Bound programs (similar to outdoor adventure, therapeutic adventure, or therapeutic wilderness programs) involve physically challenging outdoor expeditions, typically in groups, that are aimed at teaching new skills, building character, and enhancing teamwork (Outward Bound, 2018). The concept began in the 1930s, when Kurt Hahn created an outdoor education school for youth to develop physical skills and learn about outdoor survival (Outward Bound International, 2018a). In 1941, Hahn opened the first Outward Bound program with Lawrence Holt, where its purpose was to train young sailors during WWII (Outward Bound International, 2018a). Hahn’s philosophy behind the program was his belief “...that people who were put in challenging, adventurous outdoor situations gained confidence, redefined their own perceptions of their personal possibilities, demonstrated compassion, and developed a spirit of camaraderie with their peers” (Outward Bound International, 2018a, para. 2). Following its inception, the program was widely adapted and changed – there are now Outward Bound schools in 33 countries that operate in over 250 locations (Outward Bound International, 2018b).

Studies have shown that these programs help individuals connect with others, improve family communication, and raise confidence and self-esteem (Goldenberg & Soule, 2015; Hattie et al., 1997; Liermann & Norton, 2016; Norton, 2008; Norton & Watt, 2013). Furthermore,

Jirasek, Veselsky, and Poslt (2017) found that Outward Bound programs can inspire adult participants to form a spiritual connection with the environment. As a result, participation in these programs has led to decreases in school absenteeism, substance abuse, and depression (Ang, Farihah, & Lau, 2014; Cason & Gillis, 1994; Norton, 2008). Studies have also reported that Outward Bound programs can be used as an alternative form of mental health treatment for veterans who are reluctant to use more traditional methods (Bettmann et al., 2018; Scheinfeld, Rochlen, & Russell, 2017).

### **Forest Bathing**

Forest bathing, or “shinrin-yoku” as it is known in Japanese, refers to the act of immersing oneself in nature through all the senses (Li, 2018; Selhub & Logan, 2012; Williams, 2017). In 1982, the term was created by Tomohide Akiyama, Director of Japan’s Agency of Agriculture, Forestry and Fisheries at the time, in an effort to encourage citizens to spend more time in nature as well as to protect the surrounding forests (Li, 2018). In 1990, Dr. Yoshifumi Miyazaki conducted a small study for Japanese television, showing that a walk in the forest was accompanied by larger improvements in energy and mood than a similar walk inside a laboratory (Selhub & Logan, 2012). Though this initial study “...was more a speculative investigation than scientific inquiry” (Li, 2018, p. 63), it sparked the development of more rigorous scientific studies in the following years. Since then, research has shown that forest bathing induces physiological changes, including decreases in cortisol, blood pressure, and pulse rate (Li, 2018; Park et al., 2009; Park et al., 2010; Tsunetsugu et al., 2007). Studies have also suggested that breathing in chemicals, known as phytoncides, emitted by forest vegetation helps boost the immune system (Li et al., 2006; Li et al., 2008). Furthermore, forest bathing has been linked to psychological benefits, including feelings of calm and improved energy as well as decreases in depression, anger, and stress (Li, 2018; Morita et al., 2007; Park et al., 2009; Park et al., 2010; Tsunetsugu et al., 2007). As a result, the Japanese government has currently named 62 areas in Japan as designated forest therapy sites (Li, 2018).

It is worth noting that the Japanese religions of Shinto and Buddhism have been described as precursors to the development of forest bathing (Li, 2018; Williams, 2017). For instance, “Shizen – which translates as ‘nature’, or ‘naturalness’ – is one of the seven principles of Zen aesthetics ...[and involves the belief] that we are all connected to nature, emotionally, spiritually, and physically” (Li, 2018, p.23). Furthermore, Shinto promotes the belief that spirits, called “kami”, live within

all aspects of nature (Li, 2018). For example, some Japanese folk stories feature deities called “kodama” that reside in trees, and individuals are cursed if they cut down any tree in which a kodama lives (Li, 2018). As such, the bond between humans and nature is an integral part of the Japanese way of life, and could therefore provide the foundation for the concept of forest bathing.

### **Ecopsychology and Health Geography**

These programs and orientations also relate to the growing field of ecopsychology, in terms of the relation between humans and nature. In general, “...Ecopsychology explores the synergistic relation between personal health and well-being and the health and well-being of our home, the Earth” (International Community for Ecopsychology [ICE], 2019). It deals with the ever-expanding disconnect between humans and the natural environment, impacted by the rise of industrialism, as well as how best to mend this connection for the betterment of both the planet and humans themselves (Greenway, 1999). It also involves an emphasis on spirituality, specifically pertaining to a feeling of being at one with nature, which is often considered a necessary step in the process of repairing this disconnect (Greenway, 1999).

Another field related to these programs is Health Geography, which deals with how the places in which people live affect their health and well-being (Crooks et al., 2018). Originating in the 1900s, the field has evolved from looking at purely demographic influences on environment and health, to including more social and cultural impacts (Crooks et al., 2018). As a result, Health Geography is currently an “...interdisciplinary field of study informed by diverse and dynamic perspectives” (Crooks et al., 2018, p. 5). A related sub-discipline of this field focuses on therapeutic landscapes, first described by Wilbert Gesler (1993) “...as places with ‘an enduring reputation for achieving physical, mental, and spiritual healing’...” (as cited in Wilson, 2003, p. 84). While early studies centered around healing sites considered to be “intrinsically therapeutic”, later studies expanded to include how individuals’ subjective relationships to certain places affects healing (Bell et al., 2018). As such, research on therapeutic landscapes has been influential in exploring “...the interconnections between place, identity and health” (Wilson, 2003, p. 84).

### **Discussion**

At first glance, there seem to be significant similarities between forest bathing, Outward Bound programs, green or blue space research, and land-based interventions used by Indigenous peoples. However, these apparent similarities bear further scrutiny. For instance, all

programs/orientations emphasize that humans have an innate emotional connection to nature (e.g. the biophilia hypothesis) and that enhancing this relationship with nature leads to health benefits (e.g. decreased stress). Nevertheless, there are important difference between Indigenous land-based interventions and nature-based wellness programs developed outside of an Indigenous context.

First Peoples’ long-held ancestral ties to traditional regions of land have become inextricably linked to identity (Kirmayer et al., 2009; Robbins & Dewar, 2011; Wilson, 2003). Indigenous Peoples are likely to have an eco-centric sense of self, meaning the person is “connected to the land, animals, and the environment” as well as a cosmo-centric sense of self, which “connect[s] the person to an ancestral lineage or to the spirit world” (Kirmayer et al., 2009, p. 22). Through the process of colonization, the land of First Peoples was taken away, thereby leading to a significant loss of culture and identity which in turn contributed to major health problems (Kirmayer et al., 2009; Robbins & Dewar, 2011; Wildcat et al., 2014). Land-based interventions are specifically designed to address and mend that externally imposed disconnect from self, community, and culture, and it is through this reconnection with the land, and the cultural history embedded within it, that health benefits arise (Radu et al., 2014; Ross, 2014). As a result, according to some research, in order to have the greatest impact, land-based interventions should be carried out on land that has specific meaning for Indigenous participants (Ross, 2014; Wildcat et al., 2014).

In contrast, Green space research, for example, evolved out of civil engineering and urban planning and was therefore born within a colonial context. Green space research often focuses on incorporating urban natural spaces to increase productivity (Terrapin Bright Green, 2012), since “...stress reduction is good for corporate health” (Kugelmann, 1992, p. 166). Through this lens, nature is a resource to be used in the service of creating more efficient producers within a capitalist economy, rather than a primordial caretaker and the foundational context of identity.

All programs emphasize the benefits of spending time in nature. Outward Bound programs, for example, largely emphasize removing people from their everyday environments and immersing them within the context of an outdoor adventure (Outward Bound International, 2018b). However, for Indigenous land-based interventions, being out on the land is not about exploring someplace new, but returning to one’s ancestral lands and home to learn more about one’s origin and identity

(Chisasibi Wellness, 2014; Dobson & Brazzoni, 2016; Ross, 2014). As such, Indigenous healing comes from “Leading people back to their roots...” (The Minister’s Forum on Addictions and Community Wellness, 2013, p. 5).

Most nature-oriented wellness programs emphasize the importance of making connections, in some cases spiritual connections. For example, forest bathing likely has its origins in the spiritual beliefs of Shinto/Buddhism (Li, 2018), and one study of an Outward Bound program showed an increase in a sense of spiritual connection with nature in general (Jirask et al., 2017). Nevertheless, the connections within Indigenous land-based interventions require the presence of Elders (Chisasibi Wellness, 2014; Radu et al., 2014; Roué, 2016), who “...are viewed as repositories of cultural knowledge, spirituality, and traditional language” (Walls & Whitbeck, 2012, p. 1287). As a result, these approaches to healing and wellness often emphasize intergenerational knowledge transfer and connection, not only between community members but relatives from earlier generations and other spiritual and cosmological referents as well (Kirmayer et al., 2009; Radu et al., 2014; Ross, 2014).

While land-based interventions can be used as examples to highlight human connections to the land and nature, the differences between these and other nature-based programs are equally important. Ignoring these differences, or over-generalizing, runs the risk of misunderstanding the unique features of the relationship between Indigenous Peoples and their land. For example, some nature-based programs are seen through a colonial lens, whereas Indigenous land-based interventions are both a defense against and response to the impact of colonization. Specifically, green space research arose from the creation of cities and is in the service of a capitalistic society, and forest bathing was developed by the Japanese government as a way to help citizens cope with increasing urban and technological development. However, land-based interventions were created to mend the severed ties of Indigenous peoples to their traditional land and culture as a result of colonization.

Furthermore, there are important differences across programs with regard to self-concept and the process of healing. Green space research and Outward Bound programs come from an individualistic viewpoint, either looking at personal health in the city or improving an individual’s character. Forest bathing may have a background that can be seen through a more relational and eco-centric lens, in terms of the connection between people and nature in Shinto/Buddhism, yet the present-day program focuses on health from a more

individualistic lens. In contrast, land-based interventions reflect Indigenous notions of “...healing [as] a community and collective process” (Radu et al., 2014, p. 91-92). As such, these programs are manifestations of a more collectivist/eco-centric/communalistic viewpoint, where healing takes place as a group rather than on an individual basis.

Perhaps the most significant difference involves the concept of identity and how it influences health and wellness. Green space research and forest bathing focus primarily on the physical and psychological health benefits that come from being in natural spaces. Outward Bound programs focus on cultivating compassion, cooperation, and confidence as a result of spending time in the wild, but there is no explicit sense of the indelible link between land and identity.

Indigenous land-based interventions differ in that they affirm that identity and health, particularly mental health, is only possible to the degree that First Peoples are connected to their land. If individuals with an eco-centric identity, whose sense of self is inextricably tied to the land on which they live, are displaced from their home, their sense of self becomes jeopardized.

As such, government policy of forced relocation for people whose identity is tied to the land has created a trauma for which Indigenous people need a particular kind of healing. Similarly, findings by Wildcat et al. (2014), emphasize that “...if colonization is fundamentally about dispossessing Indigenous peoples from land, decolonization must involve forms of education that reconnect Indigenous peoples to land and the social relations, knowledges and languages that arise from the land” [Abstract]. Hence, land-based interventions, as well as other Indigenous programs developed by and for Indigenous people, bring a unique perspective and have an important role in healing this rift.

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