

Counselling Without Walls: Facilitating a Path to Healing Through Nature-Based/Ecotherapy
and the Human-Nature Relationship

By

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Abstract

The world is experiencing a dual crisis: increased human suffering marked by increasing rates of what are known as mental health disorders and mounting environmental distress typified by climate change events. The interplay between these crises necessitates an exploration of the role nature-based/ecotherapy can play in reducing suffering and offering a healing path for humans and nature. Although evidence suggests an increase in nature-based/ecotherapy interest and the value of the human-nature relationship, there has been a shift away from the original intent of a reciprocal relationship and a lack of understanding on how to implement nature into therapeutic practice. The literature explored suggested a gap in ethical and reciprocal practice, as well as a lack of buy-in from counsellors and clients. A personal connection to a place/experience in nature, and a deep understanding of the interrelated web of all things demonstrate avenues to facilitate a reciprocal human-nature relationship which reduces suffering for both and increases interest in incorporating nature into therapy as a healing modality. From these findings an ecologically ethical framework and an experiential workshop for counsellors was created.

Keywords: Nature-Based Therapy, Eco Therapy, Ecopsychology, Human-Nature Connection, Climate Change & Mental Health

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Chapter 1: Introduction

First a Story

Recently, at my internship, I was working with a client seeking counselling to ensure they were “on track” after being involved in a traumatic incident. They wanted to confirm that what they were experiencing was normal and would not be considered indicators of post-traumatic stress disorder. The incident went as follows: my client, a retired nurse, was leaving the apartment building where they lived, when they came upon a neighbour lying unresponsive on the ground. Their medical training instincts kicked in, they called 911, and performed cardiopulmonary resuscitation (CPR) until first responders arrived. My client later learned that the neighbour had fallen while cleaning their windows and did not survive the fall. While discussing the impact of this event, my client described experiencing hypervigilance and insomnia. They avoided going out the front door of their building and felt a sense of guilt over the neighbour’s death. They repeatedly asked themselves, “Could I have done more?” “Should I have started CPR sooner?”

As we worked together over the next several weeks, the client expressed a strong connection to nature. Eventually, they shared that they had once again begun to use the front door of the building and in so doing, noticed that there was a crushed hedge where the person had fallen. As we continued to work together, we often spoke of the hedge as a metaphor for well-being and an anchor point to their experience. Would the hedge recover and grow back in the spring? Would the client recover and experience personal renewal? Would the building manager replace the hedge? How would the client feel if they did?

At our final appointment together, the client shared that while stretching in front of their building prior to a bike ride, they noticed that snow-bell flowers were growing in front of the

hedge, which had begun to grow new branches. The client wondered whether the little flowers that signal hope, rebirth, and overcoming challenges had been there before. Regardless, it did not matter. The client experienced a full circle moment, during which they felt able to let go of the guilt, worry, and sadness. They gave their time to nature and were offered healing in return.

Overview of the Topic

Humans are experiencing increased suffering and a reduction in well-being, exemplified by rates of what is known as mental illness. In 2019, it was estimated that approximately 970 million people, or 1 in 8, were living with what is known as a mental health disorder and that rates of anxiety and depression rose at least 26% during the COVID-19 pandemic (World Health Organization [WHO], 2022). Greenleaf et al. (2014) found that this number (which does not account for those who go undiagnosed or untreated), had more than doubled in just over a decade.

While people experience suffering, so too does the environment, which indirectly and directly impacts the human population. In Canada, the province of British Columbia is currently experiencing the worst forest fire season on record (Holliday, 2023). At the same time, some 4,600 km east, the province of Nova Scotia is experiencing rainfall and flooding Environment and Climate Change Canada considers a once-in-a-hundred-year event (Mitchell, 2023). These experiences are what Bateson (1972) referred to as an ecological crisis in the 1970s. This is, therefore, not a new phenomenon but rather one that is becoming increasingly unsustainable.

“We, and the flora and fauna with which we share our planet, have limited capacity to adapt to rapid or extreme climatic changes” (Berry et al., 2010, p. 123). The Synthesis Report provided by the Intergovernmental Panel on Climate Change (IPCC, 2023) highlighted that the historically unprecedented climate change we are experiencing is caused by greenhouse gas

emissions from humans' behaviour and is unsustainable. "Global warming, contamination of air and water, forest habitat devastation, and reduced biodiversity are all examples of human-induced environmental changes" (Beery & Wolf-Watz, 2014, p. 198). At the same time, mental health disorders continue to increase worldwide at unprecedented rates and are anticipated to "constitute the second greatest burden of non-fatal disease by 2030" (Berry, 2009, p. 453). Buse et al. (2022) concluded that adverse experiences, such as climate change events, significantly impact mental health.

The data demonstrating the parallel increase in climate change events and what we call mental health disorders are a clear indication of the relationship between human beings and their natural environment. Humans are depressed and anxious, and so too are the rivers and forests. The connection between climate change and mental health is further exemplified by possible subtypes of the emerging *psychoterratic* syndromes such as Eco-Anxiety, Eco-Grief (Berry et al., 2010) and Eco-Guilt (Ágoston et al., 2022). These psychoterratic syndromes are described as forms of psychological distress directly related to the increase in climate change events (Berry et al., 2010) and they demonstrate the reciprocal nature of this relationship. As human behaviour continues to be associated with increased levels of carbon dioxide (CO₂) the temperatures continue to rise, creating the conditions for increased forest fires and heat domes, which in turn has the potential to lead to increased levels of human distress. According to Berry et al. (2018), the negative effects of heat waves on folks' well-being is statistically equivalent to the negative effects of unemployment. If true, how might we begin to reverse the negative environmental impact thereby reducing human suffering?

"When we forget that we are embedded in the natural world, we also forget that what we do to our surroundings we are doing to ourselves" (Suzuki & McConnell, 1999, p.

179). Ecologists hold the belief that humans and the world beyond are connected through an interrelated web, and therefore every action has an impact on another part of the web (Pompeo-Fargnoli, 2018). In Simard's book "Finding the Mother Tree" (2021), she described the fungal network or mycorrhizal network that connects the forest underground and allows information and resources to be shared amongst the forest. Her experiments demonstrated that tree roots surrounded by a barrier impeding their ability to connect to this network were alienated causing the trees to struggle, suffer, and often die. If humans are also posited to be part of this network separation from the natural world might induce the same response.

The benefits of human-nature connections have been in the consciousness of nature writers and environmentalists such as Emerson and Thoreau since the 1800s (Emerson et al., 1991; Mayer & Frantz, 2004). This awareness has existed and been implemented in therapeutic practice since its inception. Freud is known to have walked with clients as a form of therapeutic intervention (Newman & Gabriel, 2023). Freud's student Erikson would encourage clients to spend time in contact with nature, having reportedly found his own healing experience through that process (Berger & McLeod, 2006). Somewhere along the way, the ecological perspective was dropped from therapy and is only beginning to reemerge in the form of ecopsychology (Buzzell & Chalquist, 2009), and nature-based/eco-therapy (Burls, 2007).

Ecopsychology brings together the concepts of ecology and psychology (Buzzell & Chalquist, 2009). Nature-based/ecotherapy is the practice of these concepts and works to incorporate nature into therapy (Burls, 2007). Counsellors and others in the helping field are beginning to include clients' natural environment and how they interact with it as part of their ecological context (Greenleaf et al., 2014). However, although many studies demonstrate the benefits of incorporating the human-nature relationship into counselling, there remains little

incorporation by counsellors (Greenleaf et al., 2014). In addition, Harper et al. (2019) pointed out that many counsellors are implementing this work in a fashion that views humans as separate from nature; that nature exists for human benefit. This, they argued was not the original intention of nature-based/ecotherapy and can perpetuate the issue of human-nature suffering.

As the integration of ecopsychology and nature-based/ecotherapy has grown, a notable gap remains in considering a client's ecology in practice. While there is existing literature on the subject, it falls short of effectively combining the original intention of the human-nature relationship for genuine buy-in. Understanding what is needed to bring about this crucial shift in perspective and the associated ethical and reciprocal facilitation methods needs to be further explored.

Purpose Statement

As nature-based/ecotherapy grows in public and professional awareness, its popularity also increases. Although this blossoming attention has the positive aspect of making these practices more accessible, it also has become co-opted by colonial ideology and capitalist systems, which view nature as a commodity for human use. Nature-based/ecotherapy was intended to help facilitate the human-nature relationship and included healing for humans and non-humans as a foundational tenet (Harper et al., 2019). There are numerous examples of nature being referred to as a resource for humans subverting the original intention. As practitioners move farther from the original intention, the healing potential is diminished. Diminished healing potential is unethical. Therefore, this capstone aims to explore how nature-based/ecotherapy may be used ethically and reciprocally to provide healing for humans and nature so as to realign with its original intention.

Additionally, although there is much research and experience to support the use of nature-based practices in counselling (Greenleaf et al., 2014), there still appears to be limited use indicating a lack of buy-in from both professionals in the helping field as well as clients (Blumer et al., 2012; Greenleaf et al., 2014). As such, a secondary aim of this capstone is to explore barriers to incorporating nature into therapeutic practice to encourage practitioner and client buy-in to using these practices. More specifically, my research questions are: How can counsellors use nature-based practices to build/facilitate human-nature relationships ethically and reciprocally, allowing a healing experience and reducing suffering for both? How can buy-in be elicited from both counsellors and clients?

The intended audience for this paper is all human beings, and particularly those working in the helping and counselling fields. We have all suffered, struggled, and needed space to heal, and we live together on this planet. I hope that by providing the theoretical and philosophical underpinnings of nature-based/ecotherapy, readers will gain a deeper understanding of the importance of this work and how it may be ethically implemented.

Theoretical/Conceptual Framework

Various frameworks that interlink and grow upon each other including cybernetics, post-humanism, ecopsychology, ecofeminism, systems theory, rhizome theory and Indigenous knowledge inform this capstone. These frameworks “embrace the notion that true understanding of our clients happens with consideration for their ecological context” (Greenleaf et al., 2014, p. 168).

The rhizome serves as a great metaphor/image for connections among these frameworks and the concepts of ecopsychology (Kinman, 2022). Rhizome, also called the creeping rootstalk, is a horizontal underground plant stem or “mass of roots” that grows in multiple non-linear

directions creating connections (Friesem, 2021, par. 2). Like the mycorrhizal network described earlier, rhizome networks connect the natural world underground to foster reciprocal sharing of resources and information (Kinman, 2022; Rhizomenetwork, 2017). The following definition was adopted by philosophers Deleuze and Guattari as a metaphor for an alternative way of thinking about the world and humans' place in it (Friesem, 2021): "rhizome has no beginning or end; it is always in the middle, between things, interbeing" (Friesem, 2021, par. 3). Not only is it non-linear but also non-hierarchical. This is a shift from the dominant Western view that understands the world from a dualistic and hierarchical perspective with humans at the top. Instead, Kinman (2022) identified how the rhizome metaphor provides a deep understanding of the ecological perspective, the "image connects us to realms that are tied to the communal" (par. 5). This metaphor of communal interconnectedness will provide a foundational understanding of the other theories and perspectives yet to be discussed.

The nature of these theories and concepts are academic, scientific, philosophical, political, and cultural. I will touch on these theories and concepts to provide a lens through which this capstone will be explored.

Cybernetics

Cybernetics and the work of anthropologist Gregory Bateson highlight several important aspects required for a shift in thinking about ecological work in counselling. At its core is the need for a non-linear, non-dualistic, humble, and systems approach to thinking and interacting with the natural environment (Bateson, 1972; Palmer, 2022). Bateson believed "the mind is not limited to humans, this separation is what sets us against nature and each other" (Palmer, 2022, p. 21). Palmer (2022) explained that the mind appears from the communication between systems and is not contained inside a body. For humans to survive, they went on; there needs to be a shift

in perspective to connectedness versus separation. This aligns with the post-humanist movement.

Post-Humanism

Post-humanism challenges the notion that there is a divide between humans, nature, and technology and looks past the humanist perspective at the more than human (Callus & Herbrechter, 2012; Palmer, 2022; Theresa, 2021). Palmer (2022) highlighted the similarity to Bateson's work, specifically that; both request a shift in understanding that humans are not distinct from the rest of the world. Furthermore, they explained, work to decenter humans as superior beings.

Ecopsychology

Ecopsychology was originally a counterculture movement reacting to the Western view of humans as separate from nature (Harper et al., 2019). Ecopsychologists believe that humans' psychological suffering can be explained by their disconnection from the natural world and works to "redefine the self and sanity within an environmental context" (Pompeo-Fargnoli, 2018, p. 2). Therefore, ecopsychologists work to facilitate the human-nature relationship to reduce suffering.

Ecofeminism

Ecofeminism builds on the foundations of ecopsychology by merging it with feminist theory offering a social justice perspective (Pompeo-Fargnoli, 2018). Ecofeminism believes that the patriarchal systemic issues that harm and suppress women and other marginalized folks are the same issues that devalue nature (Pompeo-Fargnoli, 2018). Birkeland (1993) described ecofeminism as a "holistic value system in which values and action are inseparable: one cannot care without acting" (p. 19). Ecofeminism requires activism and ethics.

Systems theory

Systems theory offers a therapeutic framework for combining the valuable aspects of these perspectives. Systems theory conversations began in the 1940s and have since evolved into dozens of systems theories used in counselling today (Dallos & Draper, 2010; Gehart, 2018). Systems theory modalities sprung from Bateson's cybernetics work and included the systems that clients live in and are a part of, as these are aspects that influence a client's well-being (Gehart, 2018). The idea that we are a part of a whole and the value of exploring a client's entire ecology will inform this capstone.

Although there is potential for some systems theories to be problematic in that they place the counsellor as separate from the system and in the role of "expert", systems theories have continued to evolve and grow (Rhizomenetwork, 2017). The genogram (a way of visually mapping family relationship patterns over several generations) is a systems theory tool that will be explored as an opportunity to build human-nature connections in Chapter 3 (Gehart, 2018; Joseph et al., 2023; Nève-Hanquet et al., 2023).

Indigenous Knowledge

Although the aforementioned theories originate from Western perspectives, much of what has been learned about this topic is knowledge that Indigenous peoples have carried since time immemorial. Although Indigenous worldviews are diverse and distinct, there are commonalities in their relationship with nature that offer valuable learning for ethical and reciprocal practice (Grim, n.d.; Joseph, 2023). Joseph (2023) highlighted the collectivist nature of Indigenous worldviews that accept that the human and non-human worlds are interrelated. Concepts such as reciprocity, animism, and kinship are some of the nature-inclusive concepts that will be further explored in the literature review.

Contribution to the Field

Although there is various research regarding the benefits of nature-based/ecotherapy in support of physical and mental health, there remains a gap between what is known and understood cognitively and what is practiced. There are also limitations in the literature in relation to ethical practices in nature. Specifically, there is a divide between knowing and doing. This capstone will answer, in part, how to create “buy-in” for counsellors and clients incorporating nature and building human-nature connections as a healing modality. This includes changing how we think about the natural world and our place in it and how this can be invited versus coerced. The fundamental question is how to make human-nature connections personal and accessible while remaining ethical.

By synthesizing current literature on nature-based practices and exploring the human-nature relationship, readers are provided with a starting point for how this work can be ethically added to their practice, including: the benefits, the impact, and the challenges. As a component of this capstone, I will create an ecologically ethical framework and an experiential workshop for counsellors. This will include a working outline/agenda on how practitioners may incorporate nature ethically and reciprocally. It is my hope that greater understanding and experience with these practices will reduce barriers and increase buy-in and ethical use in the helping field.

Reflexivity and Positionality Statement

I want to acknowledge that I am a white settler, cis-gender, heterosexual female who is non-disabled and has the privilege of being in the middle class of the socio-economic landscape. Overall, my intersectional position is one of privilege, and this impacts my worldview. I work to keep this in mind not only for this capstone project but in my future work

in the counselling field. I am aware that I have unconscious biases that have yet to reveal themselves to me, and I continue to work on unlearning the colonial worldview.

My ancestors were settlers to what we now call Canada (Turtle Island) and farmed the stolen lands of the Indigenous peoples of Alberta and Saskatchewan for generations. I was born on Treaty Six Territory, the traditional lands of the *nêhiyaw* (Nay-hee-yow) / Cree, Dene (Deh-neyh), Anishinaabe (Ah-nish-in-ah-bay) / Saulteaux (So-toe), Nakota Isga (Na-koh-tah ee-ska) / Nakota Sioux (Na-koh-tah sue), and Niitsitapi (Nit-si-tahp-ee) / Blackfoot and *Métis* (*May-tee*) peoples (Edmonton, AB); grew up on Treaty 4 Territory, the traditional lands of the *nêhiyaw* (Nay-hee-yow) / Cree, Dakota, Nakota, Lakota, Anishinaabe (Ah-nish-in-ah-bay) / Saulteaux (So-toe), and the homeland of the *Métis* Nation (Regina, SK); and now live, work, and play on the unceded, ancestral, and traditional territories of the *xʷməθkʷəy̓əm* (Musqueam), *Skwxwú7mesh* (Squamish), and *Səlílwətał* (Tsleil-Waututh) Nations (North Vancouver, BC). As an adult, I spend time in the Cariboo on the traditional territory of the T'exelcencm First Nations (Williams Lake Indian Band) and the Xat'súll First Nation (Soda Creek Indian Band). These lands have impacted who I have become, in equal measure to the influence of my parents, sisters, and friends. These lands are part of my ecological identity and community. This capstone project was reflected on and written upon these same lands, in the silence of the woods, the vastness of the open prairies, and the movement of an urban center.

Clinebell (1996) highlighted the use of telling one's "earth story" in ecotherapy as a method of reconnecting a client to the natural world (p. xvii). It also offers, they suggested, a lens through which to understand someone's perspective and the current state of their relationship with nature. I will share a part of my own earth story here to add to the understanding of why I am drawn to this topic and this work and where I hope this project can lead.

I grew up during the time when the, “Reduce, Reuse, Recycle” movement was gaining momentum, and schools began incorporating these initiatives into their curriculum. This time is what Clinebell (1996) referred to as the “environmental awaking” (p. xviii). On a personal level, I recall it being seen as kind of “dorky” and uncool to recycle, and vividly remember the school bus dropping me off in front of my house and making sure it had turned the corner before picking up any litter I found nearby. While I knew that care for the environment was important, I did not want to be picked on. I suppose this was the beginning of my appreciation for nature, and a feeling that I related to it. I remember getting bundled up to sit on my swing to watch thunderstorms, and when feeling alone, low, anxious, or lost, I went outside and walked. I am not “outdoorsy” or an “adventurer,” however, I have always found solace outside the walls of my room, my home, and my mind.

Always fascinated by paleontology and archeology, the day my mother and I stopped on a road trip to Drumheller, Alberta, was perhaps the best day of my childhood. I was about eight or nine years old, and every summer, my mom and I would drive from Regina, where we lived, through Alberta and into British Columbia, visiting family along the way. Making “good time” was very important to my mom, so stopping to spend the day in Drumheller was unusual. We visited the Royal Tyrell Museum, did all the walks and hikes, and visited the hoodoos (tall, thin spires of sandstone eroded by wind and rain). Time seemed not to exist. About 30 years later, I was on another road trip travelling in the opposite direction, this time on my own. I had recently experienced a few losses and was grieving. While on my solo trip, I found myself in Drumheller, AB, and decided to stop and visit the hoodoos. There appeared to be no one else around that day, and I recall feeling calm in this familiar landscape. I came across a rock I felt drawn to, not because it did not belong but because it seemed to stand out. Without much

thought, I built a small sculpture with that rock as the central feature. When I stood back and looked at the sculpture, I saw what I could not access with cognition or express with words. I simultaneously witnessed and expressed my grief and communicated with a non-human spirit. I took a photograph and left the sculpture. In so doing, I left behind guilt and took with me self-compassion. On reflection, I would call this a healing experience. Could I have had this experience if I did not already have a bond with this place in nature? Why was I drawn to that rock? The documentary “Fantastic Fungi” directed by Schwartzberg (2019) suggested that nature speaks, but humans no longer know the language to communicate with nature. How do we “learn” the language to reconnect to the web? How do we remember?

I have had the opportunity to offer nature-based practices at my internship, specifically walking therapy and using nature as a metaphor, as exemplified in the earlier story. I have walked with clients in nearby forests, through busy streets, and sat with them in local parks, coffee shops, and the counselling room. Without fail, once we have brought these practices into therapy, clients want to keep them as part of their work.

I have also had the opportunity to participate in trainings on nature-based practices. I was surprised at how different the perspectives were. One offered a comprehensive discussion and suggestions about ethical practices, notably collaboration with local Indigenous communities. The other did not mention or seem to have considered this type of ethical practice, instead focusing on how to promote walking therapy in private practice. Both offered essential and valuable information about the benefits of these practices, but I found the first resonated for me. I wanted to explore this seeming dichotomy, in the understanding of these practices. My expected and hoped-for outcomes for this capstone are to provide a greater understanding of how this work can be ethically implemented into therapy and why it is so valuable.

Definition of Terms

A word on terms and language. Throughout this project, I will refer to mental health and in various ways. The terms *mental health* and *mental illness* provide pathologizing language, which is internalizing and not ecological but is also the language used in many of the sources referenced. For this reason, I will refer to poor mental health as suffering, struggling, anxiety, and depression when appropriate. Similarly, I will refer to healing in the sense of healing from a traumatic experience or grief, a decrease in poor mental health symptoms, or a reduction in climate change events. Throughout this project, I will use the terms human, nature, human-nature, and non-human to create distinction for clarity's sake. However, part of my research highlights that humans are one member of the natural environment and not separate.

Anthropocentrism: A worldview that centers humans as the most valuable beings (Pompeo-Fagnoli, 2018).

Biophobia: A dislike or fear of the natural environment, usually caused by negative experiences in such settings or isolation and estrangement from the natural world (Blumer et al., 2012).

Blue Spaces: Outdoor spaces near bodies of water such as oceans, lakes, and rivers (Masterson-Algar et al., 2022).

Decolonization: Restoration of Indigenous peoples' traditions and worldviews, shifting how Indigenous Peoples understand themselves and their culture, and recognizing Canada's colonial history and its negative impacts on non-Indigenous Canadians (Indigenous Corporate Training inc., 2017).

Deep Ecology: A movement that critiques anthropocentrism, instead viewing humans as equal to nature and the non-human world, and "argues for a biocentric ethic" (Pompeo-Fagnoli, 2018, p. 2). Deep ecologists believe in the interconnectedness and value of all elements and work

towards “ecological harmony” (Greenleaf et al., 2014; Palmer, 2022; Pompeo-Fargnoli, 2018, p. 2).

Earth Story: Personal experiences with nature that have shaped a person’s identity and exemplify the degree of connection one has with the natural world (Clinebell, 1996).

Eco-Anxiety: Feelings of concern, worry, stress, and fear about climate change and the state of the planet currently, and for future generations (Greenleaf et al., 2014). This sometimes relates specifically to the impacts caused by the Western lifestyle and commodity and growth-driven mindset (Greenleaf et al., 2014).

Eco-Grief: The experience of feeling sadness, anger, and loss related to the destruction of nature, such as the “loss of species and green spaces” (Greenleaf et al., 2014, p. 168).

Greenspace: Spaces comprised of mostly vegetation, including parks and gardens (Zamora et al., 2021).

Indigenization: For non-Indigenous peoples, the acknowledgment and belief that Indigenous worldviews are equal to Western worldviews. Also, the consultation with Indigenous Peoples in your area before implementing Indigenous knowledge into practice (Indigenous Corporate Training Inc., 2017).

Nature-Based/Ecotherapy: The application of ecopsychology theory (Burls, 2007). The practice of incorporating nature and the natural world into therapeutic practice (Greenleaf et al., 2013). The basis of this practice is that suffering for both can be reduced by facilitating the human-nature relationship.

Shallow Ecology: The view that pro-environmental behaviours should not interfere with human interests. Shallow ecology looks outside itself for solutions to the climate crisis instead of an

internal shift in values (Palmer, 2022). An example of shallow ecology would be the use of electric cars.

Sustainability: From a systems lens, “practices that protect and enhance the human and natural resources needed by future generations to enjoy a quality of life equal to or greater than our own” (Blumer et al., 2012, p. 77).

Outline of the Capstone Project Chapters

Following this introduction, a literature review will incorporate academic research alongside narrative writing and Indigenous voices. Masterson-Algar et al. (2022) highlighted the importance of integrating approaches and multidisciplinary work in gaining an in-depth understanding of this topic. I have worked to include quantitative and qualitative research from various disciplines, including psychology, counselling, social work, education, environmental science, geography, ecology, Indigenous knowledge, and combinations thereof to discover links that lead to actionable items. The literature review will explore four main topics: 1) nature-based/ecotherapy, including benefits and limitations/challenges/barriers; 2) how we define nature and how that relates to the human-nature relationship; 3) ethical considerations; and 4) perspectives on reciprocal practice. I intend to include many voices and points of view on the topic to gain insight into the “problem” and provide a path forward.

The third and final chapter will discuss the literature review's salient points and how they answer the questions of ethical and reciprocal practice, as well as client and counsellor buy-in. This information will be used to inform Counselling without Walls. Counselling without Walls is a workshop for counsellors and others in the helping field. The workshop intends to create buy-in, bridge the gap through experiential learning, and provide participants with information on how to incorporate nature into their practice ethically. The goal is to have this as

a part of the healing resources offered to clients. By exploring what is required for nature-based/ecotherapy to support a reciprocal healing experience, I provide suggestions for a framework of ethical practice that includes concepts of social justice, sustainability, decolonization, and indigenization.

Chapter 2: Literature Review

Rates of mental health concerns and climate change events continue to increase, indicating a rupture in the human-nature relationship (Berry, 2009; Greenleaf et al., 2014; Harper et al., 2019). Nature-based/ecotherapy practices offer the potential to work to repair this rupture (Burls, 2007; Harper et al., 2019). However, these practices have become co-opted by Western capitalist practices that view nature as a commodity for human benefit, diminishing the healing potential for all (Harper et al., 2019). The intention of this literature review is to investigate how nature-based/ecotherapy practices may be realigned with their original intention to provide a healing experience for both humans and nature. Through an exploration of the current literature on nature-based/ecotherapy practices, the human-nature relationship, and ethical considerations, I hope to gain an understanding of how to both facilitate a reciprocal human-nature relationship as well as increase interest in this practice amongst those working in the helping field.

Nature-Based/Ecotherapy

Nature-based/ecotherapy is the application of the concepts of ecopsychology in counselling practice (Burls, 2007; Buzzell & Chalquist, 2009; Pompeo-Fargnoli, 2018). Ecopsychology, is the joining of ecological with psychological theories (Buzzell & Chalquist, 2009). More specifically, ecopsychology explores the relationship and interconnectedness between humans and the natural world with the goal of creating sustainability and a healing experience for both (Buzzell & Chalquist, 2009; Clinebell, 1996). Nature-based/ecotherapy facilitates the human-nature relationship by inviting nature as a partner into therapeutic practice (Harper et al., 2019). As suggested by Blumer et al. (2012), it offers clients and counsellors an alternative avenue to therapeutic healing than has previously been offered.

These practices may include adventure/wilderness therapy, walk-and-talk sessions, pet therapy, forest bathing, and horticulture therapy, to name a few (Naor & Maysless, 2021; Newman & Gabriel, 2023; Shen et al., 2022). Although these practices are intended to occur outdoors in nature, they may also be brought indoors, for example, nature as a metaphor or bringing natural objects indoors (Berger & McLeod, 2006). Even having a view of nature, or looking at images of nature, has been shown to improve human well-being and induce healing (Greenleaf et al., 2014). Some believe that nature may be included in counselling by being in the background or foreground of a session (Berger & McLeod, 2006; Newman & Gabriel, 2023). A session that takes place outdoors in nature, such as a walk-and-talk session, is an example of nature in the background. A session that involves building a nature sculpture with found objects during a session, is an example of nature in the foreground. At the same time, Harper et al. (2019) argued that not engaging with nature (i.e., nature in the background) is not ecological in that it exemplifies using nature as a resource versus inviting nature in as a healing partner.

History/Original Intent

First called psychoecology by educator and writer Greenway in the 1960s (Attfield, 2021), the concept of ecopsychology came to prominence in the 1990s; however, the healing aspects and the human nature relationship existed long before this (Buzzell & Chalquist, 2009). Berger and McLeod (2006) highlighted the inclusion of nature in shamanic healing practices performed in ancient times. This was when humans lived in more direct contact with nature than today. Pretty (2002) estimated that 350,000 generations of people lived as hunter-gatherers. Mayer and Frantz (2004) suggested that these generations had an intimate relationship, knowledge, and connection to the land for survival, which offered “a sense of belonging, place, and feeling embedded within the broader natural world” (p. 505). In her book *Braiding*

Sweetgrass, Kimmerer (2013) described the human-nature connection as integral to the origin story of Indigenous peoples of North America—a continent that many Indigenous Peoples refer to as Turtle Island. The reciprocal nature of this relationship informed how Indigenous people lived with the land and is part of the original intention of the work of ecopsychology.

Current Practices – Benefits, Limitations & Challenges

As mentioned, nature-based/ecotherapy is practiced in various ways to offer contact with nature and its healing potential. The original intention of the ecopsychological perspective was for this to be a mutual and reciprocal relationship. When we heal the planet, we heal ourselves, and vice versa (Clinebell, 1996). Since there are various implementations of nature-based/ecotherapy, the following will offer a general overview of the benefits and limitations of these practices from a Western perspective as noted in the literature.

Benefits. There are many physical, psychological, emotional, and social benefits of nature-based/ecotherapy practices and time connecting with nature. These factors are related from a holistic and systems perspective. Benefits in one area, therefore, positively impact the others.

Physical Benefits. Spending time outdoors in nature improves physical health in a few ways. Being outdoors has been shown to encourage physical activity, which helps reduce the chance of developing chronic health conditions such as cardiovascular disease (Barton & Pretty, 2010). Even without participating in physical activity, spending time sitting in nature reduces blood pressure, heart rate, and cortisol levels, which lessen experiences of stroke, cardiovascular disease, and diabetes (Murray et al., 2019; Shen et al., 2022; Sia et al., 2020; Wolf & Housley, 2016). Newman and Gabriel (2023) determined that walking and movement-in-nature

counselling sessions helped participants regulate their emotions. This demonstrates that physical health is foundational to psychological and emotional well-being.

Psychological and Emotional Benefits. Time in nature provides several benefits supporting human psychological and emotional well-being. One example of this is problem-solving. Mayer et al. (2009) found that spending time in nature offers people a reflective space to find solutions to minor problems and increases positive affect. This finding was echoed by Dybvik et al. (2018), whose participants found that “the serenity of being in nature...provided a backdrop that made their usual problems seem less dramatic in comparison, which in turn helped them change their perspective and ways of dealing with problems” (p. 441).

In addition, folks often feel less worried when in nature (Dybvik et al., 2018). Several studies found that walking in nature versus an indoor environment improved participants' mood and self-esteem (Barton & Pretty, 2010; Greenleaf et al., 2014). Greenleaf et al. (2014) found it reduced symptoms of depression and anxiety with the effect equated to anti-depressant use. This conclusion was supported by the work of Dybvik et al. (2018), who found that several participants from a mental health treatment facility reported a reduction in symptoms leading to less medication use after spending time connecting with nature.

Social Benefits. Spending time with others in nature fosters social connections, which has been found to improve psychological and emotional well-being (Greenleaf et al., 2014; Joschko et al., 2023). Dybvik et al. (2018) found that outdoor group activities created space for people to feel more socially secure and trusting and allowed them to connect with others more easily.

Horticulture therapy with older adults is a great example of how group activities in nature can look in practice. Interacting with nature through horticulture therapy has been shown to

offer not only physical and psychological benefits (such as improved self-esteem and improved immune function) but also social engagement and connection (Franco et al., 2017; Greenleaf et al., 2014; Joschko et al., 2023; Shen et al., 2022). These impacts are most valuable for older adults who report feeling less isolated and having value and purpose (Lee et al., 2022; Shen et al., 2022). Community gardens offer older adults' opportunities to interact with different generations and be able to pass on memories and traditions (Wolf & Housley, 2016). This type of meaningful social engagement also provides a sense of responsibility and purpose that can be invaluable to maintaining their well-being (Wang & Glicksman, 2013). The activity associated with working in community gardens also increases peoples' sense of autonomy and agency, which increases overall life satisfaction (Blumer et al., 2012). Furthermore, Wolf and Housley (2016) found that, through horticulture therapy and gardening, older adults with lower incomes or those experiencing food insecurity have the added benefit of being provided a healthy food source. Not having to go to the food bank as often or being able to offer food to a neighbour can be very empowering. Social connections are essential to well-being; the human relationship with nature provides opportunities to build relationships with others and connect to the community.

Benefits over a Lifespan. These practices also offer several benefits for folks throughout their lifespan. As previously explored, horticulture therapy has been shown to have many benefits for older adults. Similar benefits exist for youth. Outdoor play and time spent in nature has been shown to reduce some of the challenging attention deficit hyperactivity disorders (ADHD) behaviours experienced by some youth in addition to increasing their cognitive and emotional abilities, inspiring creativity, and aiding in self-regulation skills (Greenleaf et al., 2014; Newman & Gabriel, 2023; Pompeo-Fargnoli, 2018).

For youth and families grieving the death of a significant person in their lives, bereavement camps set in nature, are a place where, in a very short time, peer support unfolds through an integrative therapeutic approach in an outdoor setting (Salinas, 2021). These opportunities have been shown to provide space for youth to express their grief through play, adventure therapy, artistic expression, and ritualization (Salinas, 2021). Additional benefits Salinas (2021) discovered are a reduction in anxiety and increased post-traumatic growth.

Benefits in the Therapeutic Relationship. There are also benefits from working in nature that are directly connected to the counselling session and therapeutic relationship. It is well known that the therapeutic relationship between client and counsellor is the best predictor of positive therapeutic outcomes (Harper & Fernee, 2022; Paré, 2013). Counselling outdoors offers some unique advantages to facilitating a solid therapeutic alliance. Nature offers an impartial space where clients and counsellors can work collaboratively (Dybvik et al., 2018; Newman & Gabriel, 2023). Together, decisions are made on where to sit, walk, or how they might invite nature into the relationship. In addition, this less formal setting has been shown to help normalize counselling and mitigate the relationship power differential by walking side-by-side versus facing each other, for example (Newman & Gabriel, 2023). Others have found that clients report feeling more engaged with the outdoor counselling process and are more open to sharing feelings and experiences (Greenleaf et al., 2014; Newman & Gabriel, 2023).

Outdoor counselling has also been found to offer counsellors unique information about their clients. Viewing how clients interact in a natural setting as well as with others and nature can provide important information regarding how they interact in other relationships (Greenleaf et al., 2014; Harper et al., 2019). Such interactions span multiple areas including ethical considerations. To illustrate, Greenleaf et al. (2014) noted that when working with a young

client, they observed them pick flowers out of someone's yard. They recalled that they would bring this up later as an opportunity to explore the youth's understanding of their relationship with nature. If they had not been in the natural setting with their youth client, they would never have known the behaviour, or thought to explore the youth's relationship with nature.

What Contributes to these Benefits? Mindfulness and relationships are two aspects that contribute to the benefits of nature for human well-being. Natural environments encourage us to engage all our senses-sights, sounds, smell, taste, touch, thermoception, proprioception, vestibular system. When people spend time in nature and connect with a whole sensory experience, they instinctively become mindful which leads them to be able to regulate emotions, reducing symptoms of anxiety and depression as well as feelings of worry (Dybvik et al., 2018; Franco et al., 2017; Sahni & Kumar, 2021). Vidovic et al. (1999), in their study of children's attachment to pets, found that regardless of gender, children who had a relationship with a pet displayed more empathetic and social behaviour. This exemplifies the value of personal connection to the reciprocal nature required to provide a healing experience.

Another beneficial factor of nature-based/ecotherapy is its adaptability. Nature-based/ecotherapy may be implemented with other therapeutic practices. It is often used with art therapy and mindfulness practices (Harper et al., 2019; Pike, 2021). It is also used successfully with differing populations and settings (Greenleaf et al., 2014; Kopytin, 2017; Salinas, 2021). Including individuals and families of various ages, genders, abilities, cultures, and socioeconomic status (Harper et al., 2019; Kopytin, 2017; Wang & Glicksman, 2013).

Challenges & Limitations. Although there are many benefits of connecting with nature in general and nature-based/ecotherapy in particular, it may not always be the right fit. A review of some of the potential challenges and limitations that may be experienced, enables practitioners

to work to mitigate them where possible. Challenges related to accessibility, uncertainty and unclear expectations, and buy-in will be discussed.

Accessibility. One limitation that is frequently discussed is accessibility to nature. This refers to people with physical limitations that make accessing outdoor spaces challenging and a lack of access based on privileged proximity to green or blue spaces. Climate change also makes accessing the outdoors more difficult for everyone (Newman & Gabriel, 2023), as a result of reduced air quality due to forest fire smoke, which makes outdoor therapeutic activities prohibitive. Furthermore, neurodivergent people or those with physical disabilities or limitations, may be challenged or completely unable to access outdoor spaces (Harper et al., 2019).

One mitigating option that may benefit some, is indoor virtual nature experiences. Mayer et al. (2009) discussed that although virtual nature is not as effective as actually being in nature, it can still be an option for those unable to access the outdoors. In their study of indoor nature experiences for older adults living in residential care homes, Lee et al. (2022) concluded that offering a multisensory experience, in which participants listened to, touched, and talked about birds, led to a deeper connection with nature. They reported that this improved participants' cognitions and social relationships and increased positive affect by eliciting positive memories and experiences. This highlights the power of recalling natural experiences and that they can be elicited to offer healing in the present. Harper et al. (2019) wrote that remembering or imagining a positive experience in nature through multisensory exploration can be more vivid than the original experience and can provide a healing experience. This is supported by the work of Franco et al. (2017), who found that the multisensory experience in nature, in-person or virtually,

is required to build a deeper human-nature connection. There is, therefore, a pathway to nature for all.

Uncertainty, Unclear Expectations & Suitability. Harper et al. (2019) described clients' sense of uncertainty regarding expectations of therapy outdoors as a common challenge. Blumer et al. (2012), also included "uncertainty with regard to clinical application, and ambiguity" as two of the main barriers to engaging folks in these practices (p. 81). Harper et al. (2019) suggested that although being in nature often supplies a sense of connection for clients, the uncertainty and sometimes even concern being experienced is related to an unawareness of their relationship to nature, themselves, and the present moment.

Based on past experiences or mental illness, some clients may not be suitable for nature-based/ecotherapy. Dybvik et al. (2018) reported that clients with certain psychological disorders found experiences in nature overwhelming and isolating and felt that "psychopathology is a hindrance to the positive effects of exposure to natural environments" (p. 442). Biophobia, or a fear of nature, sometimes based on past negative experiences in a nature setting, could potentially exclude someone from being suitable for nature-based/ecotherapy (Blumer et al., 2012). Newman and Gabriel (2023) found that some clients reported feeling less safe working outdoors, which caused them to limit their emotional expression.

Harper et al. (2019) concluded that an ecological assessment helps mitigate some of these limitations by helping develop a sense of where clients "are at" in their relationship with nature and determine if they are a suitable candidate for this type of therapeutic practice. They explained that by exploring current and past experiences in nature, similar to what Clinebell (1996) referred to as earth stories, counsellors gain insight into where and how they can begin implementing nature into sessions. For example, a client who reports having an adverse

relationship with nature, it is best, with respect and consent, to start with nature as a metaphor or bring nature objects into the room to begin to build the relationship (Harper et al., 2019). This connects closely with another challenge to nature-based/ecotherapy use that will be discussed following; buy-in.

Buy-in. Although there is abundant research and awareness of the benefits and healing potential of incorporating nature into therapy, clients need help understanding what nature-based/ecotherapy looks like in practice to be willing to participate. As previously mentioned, sometimes, this is due to fear or uncertainty, but it can also be due to disinterest and ambiguity about its value (Blumer et al., 2012).

Mayer and Frantz (2004) suggested the importance of positive messaging to elicit long-term buy-in from clients. This suggestion was also supported by Palmer (2022), who proposed inviting people into this work instead of using coercion. Hooley (2016) argued that providing clear information and building a strong therapeutic relationship early on helps develop engagement and buy-in from clients.

It is essential to mention that it is not only clients who have challenges buying into outdoor counselling. In a survey of counsellors, Clinebell (1996) completed an informal questionnaire with sixty-two people working in the helping field, and although many had positive childhood experiences in nature (54 half urban/half rural) and believed in the healing potential and value of nature (49), fewer than half (20) would ask clients about inviting nature into session. This is echoed by Blumer et al. (2012), who found, through interviewing marriage/couple and family therapists, that although ecological practice and systems theory are intertwined, practitioners reported not understanding how to integrate this into their family practices, even though they believe in its value. They found that one issue family therapists had

as a barrier to including an ecological approach was being unaware of how connected clients were to nature and not wanting to push an agenda that did not align with their values. Others, they discovered, questioned if the therapeutic setting was an appropriate place to discuss connectedness to nature. Many did not seem to know how to bring it into the room in a relatable way. Clinebell (1996) on the other hand, argued that it is our responsibility to bring this up in counselling as the impacts are wide reaching. Harper et al. (2019) pointed out that not offering clients a potentially healing intervention is unethical. Although Blumer et al. (2012) found that some could see nature as a resource, they were still uncertain of the practicalities. This is the most significant barrier to working with an ecological lens and requires further conversation.

Some limitations or challenges with current nature-based/ecotherapy use are related to drifting from its original intent and dualistic thinking. For example, equating contact with nature to anti-depressant use and the terms “green exercise,” “dose of nature,” and “nature prescription” demonstrate how nature is viewed as a commodity for human consumption by many doing this work/research (Barton & Pretty, 2010; Greenleaf et al., 2014; Van den Berg, 2017). This exemplifies I believe, a capitalist and colonial view of nature that neglects to acknowledge the reciprocal healing experience ecopsychology intended, making these practices ineffectual in the long-term, harder for counsellors to buy into, and unethical. Part of this “forgetting” may connect with how nature and ecology are understood and defined in the current consciousness.

Nature, Ecology, and the Human-Nature Relationship

Facilitating the human-nature relationship is foundational to nature-based/ecotherapy (Harper et al., 2019). Understanding the relationship and how it functions requires understanding the definitions of nature and ecology.

What is Nature?

The definition and human understanding of nature has evolved over time. The origins of the term “nature” can be traced back to several languages including Greek, Latin, French and Chinese (Ducarme & Couvet, 2020; Harper et al., 2019). In Greek, the root word for nature is *phusis*, meaning “growing,” and “producing,” and included humans in its definition (Ducarme & Couvet, 2020). In Latin, *natura* originally meaning to be “born,” or “to birth,” evolved during the Roman Empire to the “creative process” and then God the creator (Ducarme & Couvet, 2020; Harper et al., 2019). This iteration was also the beginning of dualistic thinking about humans and nature. Ducarme and Couvet (2020) explained that polytheist cultures, like those of the Greeks and Romans, understood their gods as a part of nature, whereas monotheist religions viewed God as above nature. Therefore, they continued, since humans are believed to be made in the image of God, they too outrank nature. Any other thinking, Haraway (1987) highlighted, was viewed as heresy.

An additional shift occurred during the 19th century when the work of Charles Darwin was published and popularized (Ducarme & Couvet, 2020; Haraway, 1987). The discovery that humans and animals are biologically connected dissolved the boundary between humans and nature and dismissed the premise of human superiority (Haraway, 1987). This continued evolution, according to Ducarme and Couvet (2020), is part of what has made defining nature elusive. Although humans are considered part of nature from an ecopsychology perspective modern definitions demonstrate this is not widely believed in the Western world.

Current Definitions of Nature. Current definitions of nature are often varied and vague, excluding humans and human creations. For example, the Merriam-Webster Dictionary (2023) defined nature as “the external world in its entirety” (par. 1). The Oxford Dictionary (2023) defined nature as “all the plants, animals and things that exist in the universe that are not

made by people” or “other than human” (par. 1). Wikipedia (2023) defined nature as “the physical world or universe” and clarified that although humans are considered part of nature, human activity is a separate category (par. 1).

Indigenous Concept of Nature. In contrast to colonial ways of thinking, Indigenous Peoples include themselves as a part of the natural world, viewing plants, land, and animals as family members (Indigenous Corporate Training inc., 2015; Kimmerer, 2013). Kinship extends past human relationships to the more-than-human world (Topa (Four Arrows) & Narvaez, 2022) and is demonstrated through animism (Kimmerer, 2013). Animism is the belief that nature has a soul. Kimmerer (2013) described the importance of referring to nature as we would our family in the human-nature relationship. She argued that by referring to nature as *it* instead of *her* a barrier is built between humans and nature, “absolving ourselves of moral responsibility and opening the door to exploitation” (p. 57). Animism is applied to anything that is understood by Indigenous Peoples to have a spirit, including rocks, places, drums, weather patterns, stories, and songs (Kimmerer, 2013). Cultural context, therefore, plays a significant role in understanding and defining nature.

Cultural Context. Culture and worldviews influence how nature is defined and understood (Haraway, 1987; Topa (Four Arrows) & Narvaez, 2022). Haraway (1987) argued that the continued evolution of how we define and understand nature exemplifies the cultural process of inventing labels to understand ourselves. She pointed out that these binary labels, such as *man* and *woman*, create systems of dominance by dividing genders, for example, or humans from nature. Beery and Wolf-Watz (2014), in their discussion of replacing the term nature with place, argued, “the place concept escapes claims for mutual purity that follows the dualistic division between nature and culture, and as a result, the question of what nature really is

becomes less relevant” (p. 203). Topa (Four Arrows) and Narvaez (2022) argued that there are currently only two worldviews on this topic; humans are spiritually and physically part of or separate from nature. They explained that although dualistic thinking is not part of the Indigenous worldview, a choice must be made between these two so that healing can occur.

Nature Defined for Therapeutic Practice. When inviting nature into therapeutic practice, many practitioners choose a definition. For example, Harper et al. (2019) clarified that in their work, nature is “a place for healing that is primarily not human-made, and generally nearby, close to where we and our clients live, work, and play” (p. xii). Like Topa (Four Arrows) and Narvaez (2022), they are aware that this seems contrary to the belief that humans and their creations are part of nature but argued that this is necessary to provide structure for clients.

What is Ecology?

Ducarme and Couvert (2020) highlighted that because the definition of nature is somewhat intangible, particularly in scientific and political use, ecology has been found to be a suitable replacement as it is less influenced by cultural perspectives and worldviews. Although nature and ecology are sometimes used interchangeably in the literature, ecology has its own definition and understanding worth exploring.

The word ecology is derived from a combination of Greek words meaning “the study of the home” and began being used over 150 years ago (Clinebell, 1996; Farb, 1963, p. 10). It is “the study of living things in relation to their environment and to each other” (Farb, 1963, p. 9). Historically, science has explored things in isolation; ecology, on the other hand, is unique in that it explores how they interact, impact, and are impacted by each other (Harper et al., 2019). From an Indigenous perspective, Joseph (2023) identified that this scientific viewpoint reminded her of

the concept of interconnectivity she had learned from community elders. Ecosystems, she explained, are all living organisms relying on and connected to one another. When this understanding is applied to therapeutic practice, ecology refers to exploring how clients engage and interact with the natural world (Harper et al., 2019).

Human-Nature Relationship

Practitioners of nature-based/ecotherapy combine nature and ecology to facilitate the human-nature relationship, as humans' connection to nature is understood to reduce suffering (Harper et al. 2019). Humans are part of nature (Palmer, 2022) and exist in an ecological context or interconnected web with other natural organisms (Harper et al., 2019). Therefore, exploring the human-nature relationship is required.

Human-Nature Disconnection. Many believe that our modern/Western lifestyle, including urbanization and increased technology use and dependence, has created a disconnect in the human-nature relationship that has led to increased rates of mental health diagnoses (Greenleaf et al., 2014; Mayer & Frantz, 2004; Pompeo-Fargnoli, 2018). Greenleaf et al. (2014) identified that 82% of North Americans live in urban settings leading to fewer opportunities to connect with nature. Evans and McCoy (1998) estimated that humans spent 90% of their time working and living indoors. Zamora et al. (2021) argued that this is partly due to increased technology use in electronics such as smartphones, television, and video games. These lifestyle changes have been correlated to increased mental health diagnoses such as anxiety and depression among humans of all ages and “feelings of isolation, despair, and a diminished sense of meaning and purpose” (Greenleaf et al., 2014, p. 169). The argument, therefore, is that less time with nature equates to a disconnection and correlates to increased suffering and decreased well-being.

One explanation often cited in the literature for this experience is the biophilia hypothesis. In his book *Biophilia*, Wilson (1984) hypothesized that humans have a biological, historical, and unconscious need to connect to nature and other living things that is not related solely to survival needs (Berry et al., 2010; Greenleaf et al., 2014; Harper et al., 2019; Mayer et al., 2009). In addition, Wilson (1984) hypothesized that humans inherently prefer natural objects to “inanimate and artificial matter” (Dybvik et al., 2018, p. 434). Therefore, the less time humans spend connecting with nature and natural objects, the less this inherent need is being fulfilled, leading to distress.

The Problem with Biophilia & the Disconnection Hypothesis. Although the biophilia hypothesis offers useful support to the value of the human-nature relationship, some take issue with certain aspects. For example, Windhorst and Williams (2016) argued that the human-nature relationship is complex and that although this hypothesis includes “psychological fulfillment” from this human-nature connection, people are not only controlled by genetics, and time in nature may not always be a benefit to certain people based on their past experiences (p. 234). It could also be argued that this is an anthropomorphic, or human-centered, view in that it only explores the relationship in one direction. In their qualitative study of ecotherapists' common beliefs, King and McIntyre (2018) reported that this inherent human-nature connection exists because humans are part of nature. This understanding partly developed from the deep ecology movement, which believed in the intrinsic value of all living things and dismantled the idea of a hierarchy with humans at the top (Palmer, 2022; Pompeo-Fargnoli, 2018).

The notion of disconnection or rupture in the human-nature relationship demonstrates problematic duality (Beery & Wolf-Watz, 2014). Disconnection implies termination, detachment, and isolation suggesting, therefore, that the contract between humans and nature is

completed. Detachment and isolation, meaning separation, would indicate that humans no longer have an impact on nature. However, this is not the case. Just because we do not participate in the relationship does not mean it does not exist and that an impact is not made. Palmer (2022) argued that because we are part of nature, what we do to it, we do to ourselves, often with results and impacts we could not have predicted. This is echoed by Topa (Four Arrows) and Narvaez (2022), who highlighted the Indigenous understanding that humans are inextricably intertwined and that when one part is not participating in harmony, the whole is weakened. “It is understood that a person who harms the natural world also harms himself” (Salmón, 2000, p. 1329). This impact happens regardless of how aware humans may be. Suzuki and McConnell (1999) referred to this as a forgetting of our place and role in the greater web. “Remembering, then, means understanding the self as ecological (a part of nature) rather than egological (apart from nature)” (Pompeo-Fargnoli, 2018, p. 2). Instead of a repair or a reconnection, a remembering of our role is facilitated through nature-based/ecotherapy.

Is Technology to Blame? As increased technology use is often hypothesized to be one of the causes of the rupture in the human-nature relationship, it is worth exploring. As mentioned, many argued that technology use reduces contact with nature and negatively impacts the human-nature relationship (Zamora et al., 2021). However, Haraway (1987) argued that making technology an enemy creates a division and a binary between humans and technology which can lead to systems of power and domination. At the same time, Bateson (1972) highlighted humans’ constant and increased dependency on technology as one of the “drivers leading us to catastrophe” (Palmer, 2022, p. 15). He believed that it allowed us to overpopulate the planet and demonstrated our arrogance concerning the environment. However, this was not the primary influence he chose to focus on, believing instead that concentrating on how we think

and view ourselves in relation to nature would be a more successful avenue to change (Palmer, 2022).

From a post-humanist perspective, some would argue that technology has provided many benefits, such as advancements in health care (Palmer, 2022). However, others argue that the unknown ecological consequences are often not fully considered or understood, leading to unsustainability (Palmer, 2022). As discussed by Haraway (1987), however, technology is part of our social reality and, in that way, informs aspects of our identity. Technology must be considered if we are doing this work with ecological values in mind. Thinking of it as neither good nor bad but how we might ethically use it should be the focus.

Human-Nature Relationship in Therapy. Humans' relationship with nature is important in the therapeutic setting and healing experience. Facilitating a reciprocal relationship is part of the work of ethically practicing nature-based/ecotherapy.

Facilitating the Human-Nature Relationship. In nature-based/ecotherapy the human-nature relationship is facilitated by inviting nature into therapy as a co-therapist (Berger & McLeod, 2006; Harper et al., 2019). However, this relationship does not occur just from being in nature. Harper et al. (2019) emphasized the importance of counsellors first seeing themselves as part of nature and understanding their relationship with nature before including nature as a co-facilitator in counselling. It is also important, they suggested, to discover where clients are in their understanding and connection with nature.

Understanding how connected someone feels to nature is the first step in learning how to facilitate their relationship with nature (Clinebell, 1996; Harper et al., 2019). Masterson-Algar et al. (2022) argued that respect develops when humans have an internal understanding that they are part of the web of nature, and this “must be the basis of a sustainable relationship between

human beings and nature” (p. 4). Mayer & Frantz (2004) highlighted that this more sustained or deeper connection helps create a more reciprocal experience increasing the well-being of nature and humans.

Humans’ relationship with nature includes relationships with other humans and themselves (Blumer et al., 2022). How connected someone feels with the natural world predicts their connection to others and themselves (Harper et al., 2019). In an empirical study of human-nature relationships, Kleespies (2021) determined that connection, community, and care were equally essential aspects of a person's relational values, which include “people’s own relationship with nature as well as their relationship with others that affect nature” (p. 1517). Understanding a client's relational values is one way to determine how connected they feel with the rest of the natural world.

Healing Potential. When clients feel a sense of safety and connection with nature, they also see themselves as an equal participant with nature in the larger web (Dybvik et al., 2018). This relationship is required for healing to occur (Harper et al., 2019). The participants in the study completed by Dybvik et al. (2018) reported: “a feeling of coming closer to themselves, to their problems and existential meanings when in nature” (p.429). Naor and Mayseless (2021) concluded that spending time alone with nature allowed people to have a deeper understanding of themselves and their part in the web of life. The relationship with nature leads folks to have deeper connections with other humans and themselves. They are all part of nature. Therefore, what we do to nature, we do to ourselves (Clinebell, 1996). This is an integral requirement of ethical and reciprocal healing and demonstrates the potential of bringing the human-nature relationship into counselling.

Ethics

Counselling has traditionally occurred indoors; therefore, taking therapy outdoors and inviting a third party, nature, into treatment has unique ethical considerations (Harper et al., 2019; Hooley, 2016). These unique ethical considerations need to be explored in conjunction with counselling guidelines of ethical conduct to help determine best practices and avoid harm to all involved. In addition, because the practice of ecopsychology includes the interrelated web of ecology, not just client and counsellor, exploring ecological ethics is equally important in building a framework for best practices (Clinebell, 1996).

Ethical Guidelines

The British Columbia Association of Clinical Counsellors (BCACC, 2023) Code of Ethical Conduct consists of five fundamental principles offering a moral framework for therapeutic practice: “respect for the dignity of all persons, respect for the dignity of all peoples, responsible caring, integrity in relationships, and responsibility to society” (p. 4). The American Psychological Association (APA) based its guidelines for ethical practice on five values: “beneficence and nonmaleficence, fidelity and responsibility, integrity, justice, and respect for people’s rights and dignity” (Hooley, 2016, p. 216). Hooley (2016) highlighted that although these principles and values equally apply to indoor and outdoor counselling, some require additional attention for outdoor therapeutic practice.

Nature-Based/Ecotherapy Ethical Considerations

In the dialogue around nature-based/ecotherapy and ethics, the considerations most often covered are counsellor competency, client confidentiality, informed consent, and client safety (Darmody, 2019; Greenleaf et al., 2014; Harper et al., 2019; Harper & Fernee, 2022; Hooley, 2016; Newman & Gabriel, 2023). Each of these will be discussed following.

Counsellor Competency. Counsellor competency includes appropriate training, continued education, and regular supervision/consultation to qualify as practicing within one's scope (Harper & Frenee, 2022; Hooley, 2016). This can be found under principle three, responsible caring, of the British Columbia Association of Clinical Counsellors (BCACC) Code of Ethical Conduct, which includes “continuously developing and maintaining competence,” and “engaging in ongoing consultation or supervision” (BCACC, 2023, p. 10). As well as the American Psychological Association (APA) ethical standard 2.01c: “Psychologists planning to provide services...undertake relevant education, training, supervised experience, consultation, or study” (APA, 2010, p. 5).

Hooley (2016) pointed out that because nature-based practices in counselling are relatively new, counsellors may find challenges accessing appropriate training and supervision. Harper et al. (2019) concurred that there are limited options for accreditation in nature-based therapies. However, they suggested that training in counselling, while supplementing with specialized nature-based workshops, seeking support from others practicing in the field, and having personal experience with ecopsychology lead to establishing competency. This aligns with APA standard 2.01e, which clarifies that practitioners take “reasonable steps to ensure competency” (APA, 2010, p. 5).

Those practicing nature-based/ecotherapy may require specific competency related to their chosen implementation method. Cambell et al. (2010) identified that competency should be broken down into skill-based (the application of practical skills) and relational (counsellors' awareness of client and personal experience) competencies. For those practicing nature-based/ecotherapy, skill-based competency may include established survival skills, wilderness first-aid skills, and appropriate equipment skills in the case of wilderness or horticulture therapy

(Hooley, 2016). Relational competency will present differently in outdoor therapy (Hooley, 2016). In an indoor therapeutic setting, these relational attending skills may include open body posture and direct eye contact to attune and actively listen to clients (Hill, 2014; Hooley, 2016). Hooley (2016) offered examples, such as “remaining alongside the client, matching his or her pace, and allowing for intermittent eye contact” as options for how this may look in outdoor therapy where traditional skills may not be available (p. 218).

Client Confidentiality. Client confidentiality and privacy include the way client information is stored and anonymity for clients and is considered a high-priority ethical value (Hooley, 2016).

Principle one of the BCACC Code of Ethical Conduct states that counsellors must protect client’s private and confidential information (BCACC, 2023). Many secure/encrypted platforms are available that keep client information and notes private and confidential. However, Hooley (2016) identified the need for counsellors to consider how to securely store personal information in a nature-based/ecotherapy setting. For example, they pointed out that the client’s emergency contact would need to be accessible due to the risky nature of the environment (aligned with BCACC Principle three: responsible caring, which includes risk management). In addition, this information would need to be electronically protected in some form while remaining accessible outdoors to adhere to ethical standards (Hooley, 2016).

Traditionally, therapy offices are designed for clients to seek counselling in a relatively private and confidential way where they are not seen or heard by others. By taking clients outdoors, practitioners increase visibility, potentially limiting privacy and confidentiality (Darmody, 2019; Hooley, 2016). For example, Greenleaf et al. (2014) highlighted the challenges of not revealing the nature of the relationship should people they know approach them and

increased opportunity for others to overhear the therapeutic conversation based on proximity. Harper et al. (2019) emphasized the need for practitioners to review and discuss with the client, all the possible scenarios that may arise in advance. They noted that this collaboration helps mitigate risk and offers clients autonomy by allowing them to decide what works for their needs. This demonstrates the close connection between confidentiality and privacy in relation to ensuring ongoing informed consent.

Informed Consent. Informed consent, also included in Principle one of the BCACC Code of Ethical Conduct (2023), refers to providing clients with free information on the risks and benefits of counselling so they can make an informed decision before engaging in therapy (Harper et al., 2019; Hooley, 2016). Informed consent incorporates the APA value of respect for people's rights and dignity by providing an ongoing practice that prioritizes client agency and autonomy (Hooley, 2016; Newman & Gabriel, 2023). Because nature-based/ecotherapy can come with some unique additional risks, such as unpredictable weather or terrain (Darmody, 2019; Hooley, 2016; Newman & Gabriel, 2023), Harper et al. (2019) underscored the need for “thoroughness, creativity, and a tenacious spirit” in the informed consent process to “prevent subtly coercing clients to sign up for activities they are not entirely comfortable with” (p. 231). Therefore, counsellors must not push their own agenda and accept client’s choices to prevent potential harm.

Client Safety. The previously discussed ethical considerations fall under the umbrella of client safety and the APA value of beneficence and nonmaleficence, or “do good” and “do no harm” (Hooley, 2016, p. 216). Unpredictable weather, client overexertion, lack of logistical and boundary control, relational power imbalance, and the potential for physical and emotional harm are some of the unique safety concerns faced by nature-based/eco-therapists and demonstrate the

need for ongoing informed consent (Darmody 2019; Harper et al., 2019; Hooley, 2016; Newman & Gabriel, 2023). Although, Harper et al. (2019) pointed out that some unpredictability and lack of boundaries can benefit clients, so it is important to balance risks. The BCACC Code of Ethical Conduct clarifies early on that “clear and imminent danger to the physical safety of any person” overrides even the highest priority principle (BCACC, 2023, p. 4). Since therapy outdoors in any setting increases the potential of physical harm, Hooley (2016) identified the need for counsellors to develop a safety plan for each setting and assess each client’s readiness to mitigate risks and ensure the experience would benefit the client. However, although Harper et al. (2019) agreed that assessments are required, they highlighted that this could inadvertently shift the priority to liability management instead of client safety. Ethical considerations and practice, therefore, need to be balanced and reevaluated continuously.

Although these critical ethical matters need to be discussed and considered, much of the peer-reviewed literature on this topic excludes nature, ecology, and place from the conversation. Considering the previously discussed definitions and interpretations of what is meant by ‘nature’ and ‘ecology’ in nature-based/ecotherapy, excluding nature as a participant in ethical consideration is unethical. An exploration of ecological ethics is required.

Ecological Ethics

Some practitioners work to include nature in their ethical practice and apply the principles and values outlined. For example, Harper and Fernee (2022), expanded BCACC (2023) Principle one and two: respect for the dignity of all persons and peoples to include “all of nature – human and non-human – as vital parts of an ecosystem in dire need of dignified care; or ecological dignity” (p. 3). Ecological dignity includes respect and responsible caring in the form of informed consent, ethical harvest, gaining knowledge and relationship building.

One way of showing respect is gaining informed consent. Cohen (1999) encouraged gaining informed consent from nature before working with her. Kimmerer (2013), Joseph (2023) and Pike (2021) echoed this practice when describing that the first step to ethical harvest requires asking the plants and nature objects for their permission and respecting the answer. Harper et al. (2019) suggested this could also include gaining knowledge about gathering natural materials for therapeutic implementation and offering respect and gratefulness to her for her support. They outlined that respect can be shown through respectful language, animism and using traditional Indigenous names.

Pike (2021) highlighted the importance of local ecological knowledge in applying sustainability to eco-art therapy. She described how this knowledge lets practitioners know which non-native or invasive plants may be removed to help the local ecology. This practice should however not be undertaken without first building a relationship and consulting with the Indigenous stewards of the land on which you plan to work (Harper et al., 2019). Harper et al. (2019) explained the importance of learning local Indigenous history, particularly regarding settler colonialism, as a tangible way of working to offer dignity and respect to nature and her Indigenous stewards. They highlighted, however, the importance of being cautious of tokenism by using land acknowledgements without authentic learning, unlearning, and relationship building with First Nations.

Harper and Fernee (2022) argued that respecting nature through relational dignity expands the web of ethical interconnectedness that aligns with nature-based/ecotherapy work. They offered an example of working with clients in a favoured place in nature, being mindful of spaces whose ecosystems may be struggling due to mistreatment and overuse by noticing and giving space for those places to heal—balancing awareness and respect.

When respect and dignity are exemplified in nature-based/ecotherapy in the ways described above, it models environmental awareness for clients (Pike, 2021). Although, as previously discussed, counsellors must respect clients' choices around engaging in nature-based/ecotherapy and must be mindful of preaching, Clinebell (1996) argued that aiding clients in exploring their ecological values is part of ecopsychology work. They explained that this work is done by identifying and affirming these values and behaviours as they reveal themselves in the client's time. In this way practitioners are practicing with an ecological ethic that includes humans and nature.

Social Justice

Social justice systemically advances equitable access to social resources for those who are marginalized (Lee, 2007). Although social justice was only recently explicitly highlighted in the BCACC Code of Ethical Conduct (2023) as social responsibility under Principle five: responsibility to society, counsellors have always understood that part of their role is that of social advocate (Greenleaf et al., 2014). Lee (2007) highlighted that the American Counseling Association (ACA) Code of Ethics emphasizes that ethical practice includes “responsibility to engage in advocacy initiatives, both with and on behalf of their clients, which challenge systemic barriers to psychosocial development” (p. 2). If we understand humans and nature as interlinked and on equal footing, we can explore this work from a social justice perspective.

Social Justice in Nature-Based/Ecotherapy. Social justice advocacy for counsellors practicing nature-based/ecotherapy should include advocating for the environment and marginalized folks as they are inextricably linked (Greenleaf et al., 2014; Palmer, 2022). As climate change events continue to increase in frequency and severity the number of people who will potentially be forced to leave their homes and communities forever will also increase (Berry,

2009; Berry et al., 2010). Berry et al. (2010) found reports suggesting that there could be as many as 150 million displaced persons by 2050, primarily due “to coastal flooding, shoreline erosion, and agricultural degradation” (p. 126).

As displacement occurs, it both increases cohorts of marginalized groups and impacts them more directly. Berry (2009) suggested that rural areas are at a greater risk of being affected by climate change. Impacting agricultural livelihoods increases socioeconomic concerns linked to poor mental health and functioning (Berry, 2009). “Social capital is particularly strongly related to mental health and sensitive to disadvantage, which accrues systematically in vulnerable people and places” (Berry, 2009, p. 454). When we consider that climate change disproportionately impacts the mental health and well-being of folks of lower socioeconomic status at higher rates, particularly Indigenous and other oppressed peoples, it is challenging not to consider this topic from a social justice perspective (Berry et al. 2010; Greenleaf et al., 2014).

Advocacy & Action. The need for advocacy and action is not going unnoticed in the helping field, as evidenced by the suggestions and work on how this unique social justice issue may be tackled. Berry (2009) proposed that climate change community activism might be an opportunity to offer a healing experience for both nature and humans. He suggested that people who work together on a local climate issue experience improvement in their mental health and well-being. The keys, he suggested, were the facilitation of community cooperation, the community choosing the environmental goal to work on, and no direct intervention related to mental health. This type of intervention, he argued, also builds “social cohesion and resilience” from future climate change events (p.455).

Issues to Consider. Although this type of intervention helps create resilient communities, it could also be argued that putting the onus on individuals to make the changes

required to reduce climate change adds further stress to marginalized individuals with little control, leading to negative reactions such as shutdown (Buse et al., 2022). Buse et al. (2022) highlighted that large corporations and industry are responsible for most of the hostile climate impacts we are experiencing today. Burls and Ashton (2021) found that focus on individual change “is linked to neglect of social policy and collective action” (p. 223). This is supported by the work of Buse et al. (2022) who pointed out that by making the consumer solely responsible, the government and industry are let off the hook and as a result may become apathetic. Although this may be true, evidence suggests small individual changes and choices can make an impact (Nielsen et al., 2021).

An example of this was seen during the early days of the Coronavirus COVID-19 pandemic. On March 11, 2020, COVID-19 was declared a pandemic by the World Health Organization (WHO) leading to lockdowns in most countries across the globe (Saha et al., 2022). Kahn et al. (2021) found that the global lockdown reduced carbon dioxide emissions which improved air quality to such a degree in such a short time that 77,000 human lives are estimated to have been saved, as well as unprecedented healing of the ozone layer. Although this was partly due to a reduction in industry and air travel, changes in human behaviour played a significant role (Kahn et al., 2021). Masterson-Algar et al. (2022) argued that this topic needs to be explored from a personal, institutional, and corporate level to create lasting conservation changes.

Systems Theory & Systemic Change

When working towards systemic change, systems theory provides a helpful framework. Berry et al. (2018) highlighted the need to implement a systems-thinking approach regarding climate change, mental health, and social change. They argued that several complex factors must

be considered and that it is not up to individuals alone to make change. This theory was also supported by Burls and Ashton (2021), who proposed that the environment and mental health must be viewed as part of a whole system. Just as systems theory examines a client holistically, this issue must be discussed from an ecological perspective, including humans, the community, and the planet (Berry et al., 2018). Berry et al. (2018) asserts the need for individuals, industry, government, and Indigenous perspectives over various disciplines for sustained human and non-human healing and well-being, or what Masterson-Algar et al. (2022) referred to as “co-design” (p. 4).

The goal of “co-design” Masterson-Algar et al. (2022) outlined is “effective and accessible communication strategies (aiming at raising awareness, education, and engagement) in improving human-nature relationships and reducing health inequalities” (p. 4). They argued that by increasing awareness and individual action, governments will be required to implement changes, and corporations will be forced to change. The economics, they concluded, will cause this change and lead to improved health outcomes for marginalized people. They highlighted the need for a bottom-up approach, reaching out to vulnerable populations to gain knowledge regarding what they believe they need. In so doing, one develops a mechanism for creating valuable and applicable understandings of accessibility and safety that can change policy in an enduring way (Masterson-Algar et al., 2022).

In her seminal book on the ecology of cities, Jacobs (1961) argued that the lack of understanding of the interrelated and complex needs of residents and the top-down approach to city planning creates slums. Although unintentional, she pointed out, this leads to faulty epistemology of ecology as parts. Jacobs (1961) believed cities are living ecosystems just like

forests and need to be developed as such. We are witnessing Jacob's impact in the current move for urban areas to add green and blue spaces to make nature more accessible to inhabitants.

Studies have found that urban parks and protected green spaces can reduce the impacts of climate change while increasing human well-being (Masterson-Algar et al., 2022; Pinto et al., 2020). However, Masterson-Algar et al. (2022) found that urban green spaces are frequently designed with only human use in mind. When the integrity of the ecosystem and biodiversity are not considered, humans often mistreat the spaces, creating an unsafe space for all (Masterson-Algar et al., 2022). Burls (2007) argued that this mistreatment of green spaces by humans demonstrates that reciprocity has not fully been considered. Plants, animals, and marginalized folks are likely to be most impacted.

Despite good intention, there is lack of ecological understanding. The consideration for and engagement with all populations, including animals and plants, is critical to development of effective interventions (Masterson-Algar et al., 2022; Mayer et al., 2009). Therefore, it is essential, as Blumer et al. (2021) pointed out, to consider how individuals make choices to change their behaviour in a social context. The human-nature relationship may be at the heart of shifting this perspective, leading to behavioural changes.

Creating a Reciprocal Human-Nature Relationship

The reciprocal relationship between humans and nature is a foundational tenet of ecopsychology. Reciprocal means a relationship of give and take in relatively equal measure. A previous exploration has established the benefits that connecting with nature has for humans, a closer look at how that can be reciprocated will be examined.

As the practice of nature-based/ecotherapy grows and Western medicine "prescribes" nature reciprocity has been lost. Although many work to incorporate nature in an ethical

manner, further exploration regarding perspectives on what elicits behaviour change in humans' interaction with nature is useful. First, it helps identify ways of creating and facilitating a more reciprocal relationship. Second, it helps identify how this might increase buy-in to nature-based/ecotherapy practices. These two components are explored, all with the long-term goal of reducing suffering and providing healing for all involved.

Perspectives on Behaviour, Cognitive, and Emotional Change

As highlighted in the introduction, climate change impacts human mental health and is an indication of the reciprocal relationship between humans and the more-than-human world. Since climate change is being used here as a sign for environmental distress, exploring human impact is relevant to developing a framework for reciprocal practice. Mayer and Frantz (2004) argued that because human behaviour is the center of climate change, the fields of counselling and psychology can offer perspectives on how shifts in behaviour might occur. They described that this initially began with small/localized changes such as recycling and energy use, or shallow ecology, and has shifted to a focus on the human-nature relationship. Opening the door to building an empathic relationship with nature, they hypothesized, leads to a deeper understanding of interconnectedness leading to changes in behaviour. The personal perspective, they concluded, creates a greater impact for change to occur and realigns with the work of ecopsychologists.

Those exploring eco-anxiety have found that people experiencing this distress respond in ways that offer insight on how counsellors might leverage the human-nature relationship for reciprocal healing. Maiteny (2002) identified that people either respond to the climate crisis with denial or empowerment. Empowerment Greenleaf et al. (2014) wrote, is “accompanied by a deeper sense of connectedness to ecology, which often leads to changes in lifestyle and the

actions to raise awareness socially” (p. 170). Moving forward, the following will explore the environmental connectedness perspective, place perspective, the role of place attachment and place meaning, and the Indigenous concept of reciprocity in understanding what is required for change in human behaviour, cognition, and emotion towards nature.

Environmental Connectedness Perspective. It is believed by many that if humans are more connected to the natural world, they are more likely to change their behaviour (Beery & Wolf-Watz, 2014; Berry et al., 2010; Mayer & Frantz, 2004). This is known as the environmental connectedness perspective (Mayer & Frantz, 2004). The idea is that as humans spend increasing time in direct contact with nature, they will feel more connected to nature and then are more likely to change their behaviour in a way that protects nature or engage in pro-environmental behaviour (Beery & Wolf-Watz, 2014; Mayer & Frantz, 2004). Mayer and Frantz (2004) highlighted the importance of human connection to nature as a predictor of ecological behaviour and argued this also improves human well-being. For example, Berry et al. (2010) outlined that people may choose to ride their bikes, walk, or take public transit instead of drive a vehicle, which reduces emissions and can simultaneously improve human mental and physical health. This theory was supported by Masterson-Algar et al. (2022) who found that people who spent two days a week in direct contact with nature had increased health outcomes, were more inclined to recycle, take public transit, and speak to others about environmental protective behaviour.

Mayer and Frantz (2004) developed a Connectedness to Nature Scale (CNS) to quantify “participants’ sense of oneness with the natural world, sense of kinship with animals and plants, and sense of equality between the self and nature” (Mayer et al., 2009, p. 614). Mayer and Frantz (2004) concluded that the Connectedness to Nature Scale offered a “moderately strong

positive relationship between CNS and eco-friendly actions” (p. 512). They also hypothesized that this relationship worked in a reciprocal manner, in that eco-friendly behaviour appeared to increase participants' sense of being connected to nature. However, in their exploration of data from a Swedish survey, Berry and Wolf-Watz (2014) determined that there is only a modest link between connectedness to nature and changes in behaviour.

Some take issue with aspects of the environmental connectedness perspective. For example, Berry et al. (2010) found that green transportation options privilege those with access and time and do not fully consider all aspects of human well-being. They pointed out that this could increase travel time for people which could lead to less time connecting with family or spending less time at work thereby potentially reducing income. These are also important factors for human well-being (Berry, 2009). In a later study, Berry et al. (2018) found that as marginalized groups are more significantly impacted by climate change, the environmental perspectives focus on individual behaviour change again privileges those who have access to positive social determinants of health and well-being. It is difficult for someone to engage in pro-environmental behaviours when they lack food or housing security. Beery and Wolf-Watz (2014) agreed that the environmental connectedness perspective is one of privilege as it does not consider socioeconomic factors making Mayer and Frantz's (2004) results less accurate and relevant. In addition to the factor of privilege, Beery and Wolf-Watz (2014) argued that nature and nature experiences are vague and lack consideration for values. They offered the place perspective as an alternative.

Place-Perspective. Counter to the environmental connectedness perspective is the place-perspective. Beery and Wolf-Watz (2014) argued that the environmental connectedness perspective, the idea that contact/time in nature or nature experiences leads to pro-environmental

behaviour, is vague, privileged and does not consider values. They suggested that because all nature experiences happen in a “place” that a place-perspective adds a more values orientated framework. Place, including a sense of place, consists of “geographic location, material form, and an investment with cultural and subjective meaning” (Cresswell, 2013, p. 36). Berry and Wolf-Watz (2014) believed that this perspective offers a more-than-human world perspective.

Berry and Wolf-Watz (2014) argued that an additional critique of the environmental connectedness perspective is that it still views humans and nature as separate as a “two-part relationship” (p. 202). They pointed out that the oversimplification of the cause-and-effect relationship between humans and nature is an example of dualistic thinking and part of what makes it problematic. By replacing nature with place, a relational concept that includes values, culture and meaning from multiple connections is offered (Beery & Wolf-Watz, 2014). Therefore, personal meaning and connection to place are what is required for changes in cognition and behaviour, as opposed to general contact with nature, because affect is included. Brehm et al. (2013) in their review of literature on community psychology found that a sense of place or a feeling of being rooted to a place is what has led to pro-environmental thinking and behaviours. Beery & Wolf-Watz (2014) recommended that what is required to motivate pro-environmental behaviour then is to explore folks’ lived experiences through stories of meaningful experiences with place, as this offers a view of the interconnectedness of pathways to change.

Place Attachment & Place Meaning. The concepts of place attachment and place meaning are what create a person’s sense of place (Brehm et al., 2013), which is understood by some to facilitate pro-environmental cognitions and behaviours (Joschko et al., 2023; Stedman,

2008). Place attachment and place meaning, therefore, require further exploration to aid in developing a framework for fostering the reciprocal human-nature relationship.

Place attachment refers to a positive emotional connection between person and place and encompasses both place dependence, ability of a setting to meet needs (Vaske & Kobrin, 2001), and place identity, “the extent to which a place becomes a crucial symbolic component of one’s definition of self” (Brehm et al., 2013, p. 523). Place meaning on the other hand, has no emotional ties and refers instead to what a place is versus how emotionally connect one feels to it (Brehm et al., 2013). It is also widely believed that place meaning is a foundational aspect to place attachment (Stedman, 2008; Brehm et al., 2013). Therefore, although these appear to be at opposite ends of the cognitive emotional spectrum, one cannot exist without the other. Cognitions of environmental concern include values, worldview, and attitudes of self, others, and biosphere; and have been shown to influence direct pro-environmental actions (Brehm et al., 2013). The issue some have with the cognitive and quantitative approach is that it is individualistic and dualistic (Brehm et al., 2013). Therefore, others approach this from a qualitative style in which they conduct interviews, or focus on storytelling, and mapping (Brehm et al., 2013). Both approached have their place.

Brehm et al. (2013) examined quantitative data exploring the connection between place attachment and place meaning with environmental behaviour at a municipal New Hampshire watershed. The researchers concluded that place meaning had a larger impact on predicting environmental concern and change in behaviour than place attachment. In contrast, in an earlier study Brehm et al. (2006) concluded that place attachment was a strong predictor of environmental behaviours, although place meaning was not a variable. They argued that this

highlights place meaning's underpinning to place attachment, and that this influences individuals differently when it is a local versus broad environmental issue.

Considering this information from an ecological perspective, aspects of each of these perspectives should be considered. Place meaning brings cognitive values, and an awareness of self as part of the ecological context leading to behaviour change, which offers an angle for creating buy-in to inviting nature into therapy. At the same time, place attachment invites exploring a client's personal emotional bond with nature through story to increase the reciprocal relationship with nature.

Reciprocity. From a Western perspective reciprocity refers to exchanging things between people for mutual benefit. Although this is not far off from the Indigenous perspective, they apply this concept in their relationship with nature. To understand what is required to build a reciprocal relationship between humans and nature, an exploration of the Indigenous concept of reciprocity provides important information.

Interconnected with animism and kinship, reciprocity is understood as a web of giving and taking between the human and more-than-human world to facilitate healthy relationships (Kimmerer, 2013). Reciprocity requires gratitude, generosity, and selflessness (Joseph, 2023; Kimmerer, 2013). Kimmerer (2013) highlighted these qualities in describing the Honorable Harvest of the pecan grove:

to take only what is given, to use it well, to be grateful for the gift, and to reciprocate the gift...We reciprocate the gift by taking care of the grove, protecting it from harm, planting seeds so that new groves will shade the prairie and feed the squirrels. (p. 21)

This also exemplifies the interconnectedness of the ecosystem. Jalissa Schmidt, a member of the Acho Dene Koe Nation, shared that reciprocity can be a matter of giving our time to nature and

receiving healing in return and that giving what one can in the moment is all that is required (personal communication, July 12, 2023). It also, she shared, requires humans to be humble: a garden will grow whether we are there to attend to it or not. True reciprocity Clinebell (1996) explained requires a deep understanding of the interconnectedness of humans and nature.

Chapter Summary

With the metaphor of the rhizome in mind, there are several key themes and discourses in the current literature that provide information on facilitating an ethical and reciprocal human-nature relationship and increasing interest in providing nature-based/ecotherapy as a healing modality. Dualistic thinking, the understanding that humans and nature are separate, was identified as one of the key issues in the misalignment of nature-based/ecotherapy from its original intent (Beery & Wolf-Watz, 2014; Ducarme & Couvet, 2020; Topa (Four Arrows) & Narvaez, 2022). In conjunction, a drastic shift in Western lifestyle based on consumerism, convenience and comfort has decreased the amount of time humans spend in and with nature (Greenleaf et al., 2014; Mayer & Frantz, 2004; Pompeo-Fargnoli, 2018). Even if people believe in the interconnectedness and ecology of the human-nature relationship, politicization of climate change and a medical understanding of mental health/illness, has left many in the helping field feeling uncertain about whether and if so, how nature might be brought into counselling (Blumer et al., 2012; Clinebell, 1996). Although there has been a shift in practices away from the original intent of a reciprocal relationship to a one directional relationship there are many maintaining the original intent (Clinebell, 1996; Harper et al., 2019; Pike, 2021). Their work provides a path towards realignment.

Empathy, mindfulness, and personal connection are some of the key elements to facilitating the human-nature relationship (Beery & Wolf-Watz, 2014; Brehm et al., 2013;

Dybvik et al., 2018; Franco et al., 2017; Greenleaf et al., 2014; Harper et al., 2019). They help create a shift away from dualistic thinking to a deep ecological understanding of the interconnectedness of all things. This shift requires both a cognitive and emotional understanding to lead to a change in behaviour (Brehm et al., 2013). This leads to a reciprocal healing experience as well as an understanding of the systemic change required for a true reduction in suffering for all humans and nature to exist.

Reciprocity in relationships is a foundational element to the healing potential of nature-based/ecotherapy. Not only the relationship with nature, but also with other humans, community, Indigenous stewards, and oneself. It is a cyclical healing journey that requires counsellors to first explore their own personal connection to nature to be able to implement it ethically into therapy.

Chapter 3: Discussion and Application

In this final chapter, I will revisit the original research questions posed in Chapter 1 and discuss what current literature offers on the topic. I will also discuss identified gaps and limitations in the current research. These discussions will allow me to expand and create new applications and recommendations for future research. These applications will include an ecologically ethical framework for inviting nature into therapeutic practice and a description and outline of a brief workshop for counsellors, including experiential tools, to elicit buy-in to these practices.

Discussion

The original goal of this capstone was to answer two related questions. How can counsellors use nature-based practices to build/facilitate human-nature relationships ethically and reciprocally, allowing a healing experience and reducing suffering for both? How can buy-in be elicited from both counsellors and clients?

What was discovered in the literature review was that although contact with nature is beneficial for humans in several ways (Dybvik et al., 2018; Greenleaf et al., 2014; Harper et al., 2019; Newman & Gabriel, 2023; Pompeo-Fargnoli, 2018), it does not necessarily lead to the facilitating of a reciprocal human-nature relationship. Contact does not always equal connection. What is required, in part, to build the connection needed for true reciprocity, and healing to exist, is an understanding and belief in the interconnectedness of all things (Harper et al., 2019). With this understanding comes empathy, which can be expanded, shifting humans' interactions with nature to a more mindful and ethical experience. To do this, counsellors need to consider the literature that highlights both the cognitive (place meaning) and the emotional (place attachment) aspects that can help create a shift in behaviour (Beery & Wolf-Watz, 2014; Brehm et al., 2006;

Brehm et al., 2013). Reciprocal facilitation begins by exploring folks' experiences with nature. Building on unique personal experiences not only increases reciprocity but also increases buy-in.

Furthermore, the literature underscores the importance of contextualizing nature within an ecological framework, as it serves as a foundational basis for therapeutic application. Human ecology encompasses not only natural landscapes like forests but also human-made structures. Consequently, when integrating nature-based/ecopsychological approaches into therapeutic practices, counsellors should consider not only clients' connections with what conventionally qualifies as nature but also their broader ecological experiences as part of ethical practice.

Gaps & Limitations

Although the literature did include ethical practices for incorporating nature into therapy, much of the peer-reviewed literature focused on best practices for the client. Although these are, without a doubt, important considerations, further discussion and exploration of ethical considerations for nature, must be included as they build the foundation for reciprocity. Consulting with other forms of literature, particularly those currently practicing nature-based/ecotherapy, and conversations with practitioners offered some guidance about ethical considerations for nature and what reciprocity can look like. However, a combined ecologically ethical framework for those practicing nature-based/ecotherapy is required.

An additional advantage to an ecologically ethical framework is that it provides practitioners with a tangible framework from which to work, which Blumer et al. (2012) identified is one of the barriers to implementing these practices.

Application

Something I often hear from other counsellors, which was identified in the literature, is that the application of nature-based/ecotherapy is not tangible (Blumer et al., 2012). This

translates to counsellors' feeling they do not feel they know how to apply this information in their practice. What is tricky about this, is that nature-based/ecotherapy is not a modality with an applied structure like some others. Rather, it requires instinct, exploration, and collaboration with clients, and only when one understands and explores a client's personal relationship with nature and place, can they discover how they might invite nature into therapy.

In addition, tangibility and structure in counselling are part of the issue. Counselling can be understood as part of a colonial construct and can perpetuate systems of power and oppression through separation and division. It starts with a change in how we think and view ourselves in the larger ecological context. A tangible place for clinicians to begin is having conversations and exploring their own "earth story" (Clinebell, 1996). Burls and Ashton (2021) argued that, since the benefits are so varied and applicable, nature-based/ecotherapy is an essential and valuable tool that counsellors should have a basic knowledge of so as to be able to offer the approach to clients.

Ecologically Ethical Framework

Following, are recommendations and considerations for the ethical practice of nature-based/ecotherapy. The recommendations explore ethics from an ecological lens, including clients, nature, and Indigenous stewards.

Before Working with Clients. Before offering nature-based/ecotherapy to clients, practitioners need to do groundwork. This includes gaining competency, planning, and building relationships with members of local Indigenous communities.

Competency. As discussed in Chapter 2, counsellor competency includes appropriate training, continued education, and supervision, as well as skill-based and relational competency (Cambell, 2010; Harper et al., 2019; Hooley, 2016). Harper et al. (2019) also identified personal

experience with ecopsychology as a component of competency. Practitioners can gain this competency by reading current literature, contacting local nature-based/ecotherapists in their area, and participating in available training and workshops. In British Columbia, a few counsellors and organizations are offering these services. It is recommended that one reach out and ask questions to confirm that what they are offering is in line with one's personal beliefs and goals.

Planning. Before inviting clients outdoors, practitioners should consider where and how to invite nature into therapy. Walking therapy, for example, will require counsellors to preselect a few locations that offer various levels of accessibility and exertion to be able to offer services to most folks. Another consideration is how populated these locations are to protect client privacy and confidentiality. Other considerations include locations to sit, bathroom availability, confirming appropriate insurance coverage, and having the appropriate first aid training (Darmody, 2019).

Gaining Knowledge and Building Relationships. A vital component in this initial phase is building knowledge and relationships with local ecology and Indigenous peoples (Harper et al., 2019). Building a relationship with local ecology includes gaining knowledge and history of local flora, and fauna, spending time in these locations, and asking for consent before working with and on the lands (Harper et al., 2019; Joseph, 2023). These practices demonstrate respect and dignity for nature and are integral to facilitating reciprocal relationships with clients (Harper & Fernee, 2022).

Similarly, building relationships with local Indigenous peoples on whose land you may work is crucial. Relationship building may occur through preexisting relationships with a local steward or contacting the local band office (J. Schmidt, personal communication, August 23,

2023). Many bands have health and wellness managers who are happy to collaborate. Creation of such relationships demonstrate respect and dignity not only for nature but also Indigenous people as stewards of the land since time immemorial. As each peoples' beliefs and practices are varied, gaining local knowledge about appropriate practices is essential to pass on to clients and avoid cultural appropriation (Grim, n.d.; Joseph, 2023).

These are ongoing practices that need to be cultivated over time to maintain relationships, not as a one-time activity. For example, certain locations may need to lay fallow to give them a break and prevent overuse. Continued consultation is an ethical requirement.

Before Taking Clients Outside. Once relationships, training, and planning are established, some additional important ethical considerations must be made before working with people outdoors. These include safety, client suitability, and informed consent.

Safety. When considering safety, counsellors need to think about client safety and safety for themselves and nature. As discussed in Chapter 2, taking therapy outdoors invites unique safety considerations that must be mitigated as much as possible. These include conducting a risk assessment for each location (i.e., potential hazards for clients, practitioners, and the local environment, etc.). For example, since practitioners will be working alone and not in an office with others, they should also establish a check-in plan with a colleague who knows where they will be and when they are expected to return. As highlighted in the last section, safety for nature may include avoiding areas at certain times to allow for rejuvenation of the land. In addition, if planning to harvest from the area or include nature objects, knowing what objects and seasons they should be accessed is part of ethical harvesting that can protect the sustainability of the local environment.

Many of these safety concerns can be mitigated by a thorough intake assessment confirming that clients are appropriate for nature-based/ecotherapy.

Assessment. Before working with clients outdoors, assessment helps determine a client's suitability for nature-based/ecotherapy. It informs how best to implement these practices based on the client's current relationship with nature (Harper et al., 2019). As discovered in the literature review, clients with certain psychological diagnoses or biophobia may not be suitable candidates for outdoor work (Blumer et al., 2012; Dybvik et al., 2018). However, further exploration into clients' experiences with nature can provide counsellors with information on how nature can be implemented into therapeutic practice (Harper et al., 2019). Assuming that clients are interested, certain practices may help reduce client suffering if they have had a negative experience in nature, for example.

In addition to a relational and emotional assessment, a client's physical needs must be assessed. Options with wheelchair access and places to sit and rest should be previously established ahead of time to make nature-based/ecotherapy as accessible as possible.

Informed Consent. Informed consent consists of providing clients with a complete overview of the benefits and risks of nature-based/ecotherapy so they can make an informed decision before beginning (Harper et al., 2019; Hooley, 2016). Obtaining informed consent should include a review of unique safety risks and a discussion about the limits of confidentiality. In collaboration with the client, counsellors should discuss where outdoor counselling will occur, plan for inclement weather, and confirm how clients would prefer to handle the potential of encountering people they may know. This is also an excellent time to confirm a client's emergency contact and discuss how this information will be kept private yet accessible.

As mentioned, informed consent also applies to the land on which one plans to work as well as in relation to the Indigenous stewards. It is essential to share this information with clients to demonstrate and model reciprocity in the human-nature relationship.

Working Outdoors. Once you begin to work outdoors with clients, ecologically ethical considerations include continued consultation/collaboration, feedback, and modeling.

Consultation, Collaboration & Feedback. Hooley (2016) identified feedback and continued client consultation as an essential ethical practice. Once you begin to work with clients outdoors, therefore, eliciting feedback early on and at regular intervals throughout the process should be a priority. This is in part due to the unique setting and the additional considerations. Clients are likely new to these practices and may wish to adjust locations and nature involvement from what was previously discussed. This practice also applies to relationships with nature and Indigenous stewards.

An additional advantage to eliciting feedback early on from clients, Hooley (2016) found, is that it helps build a positive working rapport with clients which has been shown to increase client engagement and buy-in.

Modeling. Based on personal values and along with Indigenous consultation, modeling can be practiced in and outside of sessions to facilitate a reciprocal relationship between humans and nature for ourselves and our clients. For example, using respectful language such as animism when referencing nature and using traditional Indigenous names of locations and plants, helps invite this practice into client consciousness (Harper et al., 2019). Outside of your counselling practice, reciprocity can include environmental advocacy. This aligns with the role of social justice advocate counsellors should consider taking on as it contributes to the sustainability, decolonizing, and indigenization of counselling.

Counselling Without Walls: A Nature-Based/Ecotherapy Workshop for Practitioners

An ecological ethic requires competency, which can include specialized training and personal experience with the practice (Harper et al., 2019). *Counselling without Walls* intends to provide practitioners with experiential learning that offers both experience and tools they can bring into their practice. Ethical and reciprocal practices will be modeled throughout and given in-depth exploration and discussion.

Although other workshops and training courses are available, they often cater to people who are already interested in these practices. Since part of this project explored increasing buy-in, *Counselling without Walls* is structured for those who are curious but with doubts about efficacy. For this reason, the workshop will take place outdoors, be a half-day in length (3-4 hours), be offered for free to non-profit organizations or counselling conferences and run in groups of 8-12 people. The hope is that this more intimate group experience, offering time for discussion and reflection, can reach a broader audience and encourage further exploration.

Counselling without Walls refers to taking therapeutic work outdoors and reducing barriers to the access and implementation of nature-based/ecotherapy.

Workshop Outline.

- Introduction
 - Facilitator introduction
 - Land acknowledgement (based on collaboration with local Indigenous community)
 - Learning outcomes: Understanding of nature-based/ecotherapy, the connection between climate change and mental health, defining nature and ecology, personal experience with nature-based practices, tools for

implementation, understanding of ethical practices, and a deeper understanding of the interconnectedness of all things and the human role within that.

- Experiential Activity Part 1 – Earth Story & Green-o-gram
 - Earth Story. What is an earth story? Provide examples and begin to explore participants own experiences through a green-o-gram.
 - A green-o-gram is a take on Bowen Family Systems genogram tool. A genogram is a symbolic representation of family relationships that looks to identify family patterns (Joseph et al., 2023; Nève-Hanquet et al., 2023). This tool will be adapted to include nature, place, and landscapes and examined to identify how these relationships inform participants identity and human-nature relationship.
 - Participants will be invited to share and discuss.
- Experiential Activity Part 2 – Favourite Place in Nature – Visualization
 - Participants will then be asked to select a favourite place in nature, somewhere they had a positive experience.
 - Mindful exploration and visualization. Participants will be guided through a mindful visualization of a positive experience they have had in a place in nature. The literature revealed that a multi-sensory experience helps build connections (Dybvik et al., 2018; Franco et al., 2017). Facilitator prompts include: Please get yourselves comfortable sitting, standing, or walking around. If you are comfortable, you can close your eyes or gaze softly in front of you. Take a few breaths as you settle in and notice your feet on the ground

or where your body contacts the chair. Now, bring to mind your favourite place in nature and see if you can put yourself back there. Look around and see what you notice. What colours are there? Are there sounds? Is someone with you? What does it smell like? What does your skin sense? Is there a breeze or a temperature? What sensations, feelings, or thoughts are you noticing? Furthermore, as you take your final moments here, see if a word or phrase that encapsulates this place comes to mind. One you can take with you. When you are ready, you can say thank you to your place if you like, take another breath there, open your eyes and join me back here.

- Participants will then be invited to share their experiences and the places they chose.
- What is Nature?
 - This section will explore how defining nature influences the human-nature relationship and begin with an open discussion about participants understanding of nature.
 - A brief description of the history of nature-based/ecotherapy and its original intent will be provided to highlight the interconnectedness of all things.
 - This section aims to help develop the understanding that humans are nature and reduce dualistic thinking about humans and nature.
- Experiential Activity Part 3 – Favourite Place in Nature – Nature Sculpture

- With the place/experience in nature, participants chose in mind, they will be invited to explore the current natural setting and choose an object that resonates with them and connects to the place.
- This provides an opportunity to discuss ethical harvest practices and ask nature for consent before picking up an object or taking a photo. Objects will be returned to the land.
- Participants will then be invited to share anything coming up for them so far in relation to their chosen place and object.
- They will then be invited to build a group nature sculpture. This entails each person, one by one, placing their object in the chosen location. There are no rules except that they will be asked not to move other participants objects once placed.
- Once the sculpture is completed, participants will be invited to share what they noticed while they did this and what is coming up as they look at the sculpture they built together.
- At this point in the workshop, participants have been provided with a demonstration and experience of two methods of discovering a personal connection with nature that can then be further explored for reciprocal healing.
- Discussion of Ethical Considerations
 - This section will begin by discussing what ethical considerations participants noticed so far.

- Following this, the facilitator will review ethical considerations not brought up, referring to the ecologically ethical framework. Providing information on how to engage with local Indigenous communities, learn about local ecological history, and what reciprocity can look like will be a foundational focus.
- Reciprocity and Healing
 - Now that a personal connection to nature has been established, participants will be given time to reflect on and discuss in small groups what reciprocity might look like for them, how they might use this information to invite nature into therapeutic practice, and what the healing potential may be.
 - The larger group will discuss and share what came up, and examples will be provided.
- Questions & Discussion
 - This section will allow participants to ask final questions and open the floor to discussions.
- Final Thoughts & Take Aways
 - Participants will be asked to share any final thoughts and one takeaway from the workshop to close the day.
 - The facilitator will wrap up by connecting the workshop journey with an anecdote of their choice.

For my capstone presentation I ran a truncated version of this workshop that included a discussion about what is nature, a mindful visualization of a place in nature, and a group sculpture with nature objects. I also practiced with friends and family beforehand. Regardless of

the population, each participant's nature object touched another object, and when looking at the sculpture in a group, the interconnectedness of the human journey with nature was identified. In addition, the realization that these places are within us, accessible at any time as part of our identity, and part of what connects us to others seemed to resonate with people effortlessly. Although this is only the first step in facilitating a reciprocal healing experience, it appears to be one that resonates with people and elicits their curiosity to explore this topic further.

Capstone Summary

Although nature-based/ecotherapy is gaining in popularity, there is evidence to suggest that as this happens, there is a significant shift away from its original goal of a reciprocal healing experience for both humans and nature. Facilitating the human-nature relationship requires practitioners to understand their relationship with nature to provide these practices in the way ecopsychology intended ethically. A deep understanding of the interrelated web of all things and a move away from dualistic thinking is required for a mutual healing experience. Eliciting both a cognitive and emotional connection to nature has been shown to help facilitate the human-nature relationship and shift human behaviour. A clear connection between climate change events and increased mental illness exists, increasing the need for nature-based/ecotherapy practices to be available. It was not within the scope of this paper, but further research on sustainability, decolonizing, and indigenizing counselling through nature-based/ecotherapy is worth pursuing.

A Final Story

As I worked on this project, I noticed that the need for these practices is becoming urgent. I was feeling overwhelmed by the news on climate change and was beginning to feel a sense of hopelessness. On a drive from the lower mainland to the Cariboo region of British Columbia,

my partner and I stopped in Hope, BC for breakfast as we often do when making the trip. Our timing always seems to align with that of a tour bus and we struck up a conversation with the bus driver and tour guide on their break. The tour guide, a woman originally from Germany, shared that when she first came to Canada, she and her husband at the time and her ended up in the Chilcotin region of BC and fell in love. She told us she could “hear the soil.” They bought 80 acres and never looked back. Over the decades, they enjoyed their property even when the marriage ended. Now they have decided it was time to give the land back to the Indigenous community of the area. A sense of hope returned to me when she shared this part of her Earth story and how she was choosing to reciprocate. I was also glad to know that she had found love again...with the tour bus driver!

References

- Ágoston, C., Urbán, R., Nagy, B., Csaba, B., Kóváry, Z., Kovács, K., Varga, A., Dúll, A., Mónus, F., Shaw, C. A., & Demetrovics, Z. (2022). The psychological consequences of the ecological crisis: Three new questionnaires to assess eco-anxiety, eco-guilt, and ecological grief. *Climate Risk Management*, 37(1), 1-19.
<https://doi.org/10.1016/j.crm.2022.100441>
- APA. (2010). *Ethical principles of psychologists and code of conduct*. Washington, DC: American Psychological Association.
- Attfield, N. (2021, February 7). *What is Ecopsychology?* Mindsplain.
<https://mindsplain.com/what-is-ecopsychology/#:~:text=In%201990%2C%20iconic%20cultural%20historian,The%20Voice%20of%20the%20Earth.>
- Barton, J., & Pretty, J. (2010). What is the best dose of nature and green exercise for improving mental health? A multi-study analysis. *Environmental Science & Technology*, 44(10), 3947-3955.
- Bateson, G. (1972). *Steps to an ecology of mind*. University of Chicago Press.
- Beery, T. H., Wolf-Watz, D. (2014). Nature to place: Rethinking the environmental connectedness perspective. *Journal of Environmental Psychology*, 40(12), 198-205. <https://doi.org/10.1016/j.jenvp.2014.06.006>
- Berry, H. (2009). Pearl in the oyster: Climate change as a mental health opportunity. *Australasian Psychiatry: Bulletin of the Royal Australian and New Zealand College of Psychiatrists*, 17(6), 453-456. <https://doi.org/10.1080/10398560903045328>

- Berry, H. L., Bowen, K., & Kjellstrom, T. (2010). Climate change and mental health: a causal pathways framework. *International Journal of Public Health, 55*(2), 123-132.
<https://doi.org/10.1007/s00038-009-0112-0>
- Berry, H. L., Waite, T. D., Dear, K. B. G., Capon, A. G., & Murray, V. (2018). The case for systems thinking about climate change and mental health. *Nature Climate Change, 8*(4), 282-290. <https://doi.org/10.1038/s41558-018-0102-4>
- Berger, R., & McLeod, J. (2006). Incorporating nature into therapy: A framework for practice. *Journal of Systemic Therapies, 25*(2), 80-94.
<https://doi.org/10.1521/jsyt.2006.25.2.80>
- Birkeland, J. (1993). Ecofeminism: Linking theory and practice. In G. Gaard (Ed.), *Ecofeminism: Women, animals, nature*. (13-59). Philadelphia: Temple University Press.
- Blumer, M.L.C., Hertlein, K.M. & Fife, S.T. (2012). It's not easy becoming green: Student-therapist perceptions of family therapy in an eco-sustainable age. *Contemporary Family Therapy, 34*(1), 72–88. <https://doi.org/10.1007/s10591-012-9175-9>
- Brehm, J. M., Eisenhauer, B. W. & Krannich, R. S. (2006). Community attachments as predictors of local environmental concern: The case for multiple dimensions of attachment. *American Behavioral Scientist, 50*(1), 142–165.
- Brehm, J. M., Eisenhauer, B. W., & Stedman, R. C. (2013). Environmental concern: Examining the role of place meaning and place attachment. *Society & Natural Resources, 26*(5), 522-538. <https://doi.org/10.1080/08941920.2012.715726>
- British Columbia Association of Clinical Counsellors. (2023, November). *Code of ethical conduct*. BCACC. <https://bcacc.ca/wp-content/uploads/2023/07/BCACC-COEC-Effective-Nov.-1-2023.pdf>

- Burls, A. (2007). People and green spaces: Promoting public health and mental well-being through ecotherapy. *Journal of Public Mental Health*, 6(3), 24-39.
- Burls, A., & Ashton, J. (2021). Public mental health and nature: A paradigm shift. *Journal of Public Mental Health*, 20(3), 221–228. <https://doi.org/10.1108/JPMH-03-2021-0040>
- Buse, K., Bhaumik, J., Miranda, J., Hunnisett, C., Selin Batz, C., & Feeny, E. (2022). Individual responsibility: A red herring that lets the fossil fuel industry off the climate catastrophe hook. *BMJ*. <https://doi.org/10.1136/bmj.o1656>
- Buzzell, L., & Chalquist, C. (2009). *Ecotherapy: Healing with nature in mind*. Sierra Club Books.
- Callus, I., & Herbrechter, S. (2012). Introduction: Posthumanist subjectivities, or, coming after the subject. *Critical Psychology (Lawrence & Wishart)*, 5(3), 241-264. <https://doi.org/10.1057/sub.2012.17>
- Cambell, L., Vasquez, M., Behnke, S., & Kinshcerff, R. (2010). *APA ethics code commentary and case illustrations*. Washington, DC: American Psychological Association.
- Clinebell, H. J. (1996). *Ecotherapy: Healing ourselves, healing the earth*. Routledge. <https://doi.org/10.4324/9781315799773>
- Cohen, M. (1999). *Reconnecting with nature: Finding wellness through restoring your bond with the earth*. Apple Valley, MN: EcoPres.
- Cresswell, T. (2013). *Geographic thought: A critical introduction*. Oxford: Wiley- Blackwell.
- Dallos, R., & Draper, R. (2010). *An introduction to family therapy systemic theory and practice* (3rd ed.). Open University Press.
- Darmody, C. (2019). Narrative walks. *International Journal of Narrative Therapy and Community Work*, 1(1), 52-60.

- Ducarme, F. & Couvet, D. (2020). What does 'nature' mean? *Palgrave Communications*, 6(1), 1-14. <https://doi.org/10.1057/s41599-020-0390-y>
- Dybvik, J. B., Sundsford, S., Wang, C. E. A., & Nivison, M. (2018). Significance of nature in a clinical setting and its perceived therapeutic value from patients' perspective. *European Journal of Psychotherapy & Counselling*, 20(4), 429–449. <https://doi.org/10.1080/13642537.2018.1529690>
- Emerson, R. W., & Thoreau, H.D. (Intro by Elder, J.). (1991). *Nature/Walking*. Beacon Press.
- Evans, G. W., & McCoy, J. M. (1998). When buildings don't work: The role of architecture in human health. *Journal of Environmental Psychology*, 18(1), 85–94.
- Farb, P. (1963). *Life nature library: Ecology*. Time Inc.
- Franco, L. S., Shanahan, D. F., & Fuller, R. A. (2017). A review of the benefits of nature experiences: More than meets the eye. *International Journal of Environmental Research and Public Health*, 14(8), 1-29. <https://doi.org/10.3390/ijerph14080864>
- Friesem, E. (2021, March 9). *Rhizome as a metaphor for human thinking and the internet*. Elizaveta Friesem. <https://www.elizavetafriesem.com/blog/rhizome-as-a-metaphor-for-human-thinking-and-internet#:~:text=Deleuze%20called%20rhizome%20an%20%22image,been%20described%20as%20a%20rhizome>
- Gehart, D. (2018). *Mastering Competencies in family therapy* (3rd ed.). Cengage.
- Greenleaf, A. T., Bryant, R. M., & Pollock, J. B. (2014). Nature-based counseling: Integrating the healing benefits of nature into practice. *International Journal for the Advancement of Counselling*, 36(2), 162-174. <https://doi.org/10.1007/s10447-013-9198-4>

Grim, J. A. (n.d.). *Indigenous traditions and ecology*. Yale School of the Environment.

Retrieved July, 26, 2023, from <http://fore.yale.edu/religion/indigenous/>

Haraway, D. (1987). A manifesto for cyborgs: Science, technology, and socialist feminism in the 1980s. *Australian Feminist Studies*, 2(4), 1-42.

Harper, N., Rose, K., & Segal, D. (2019). *Nature-based therapy: A practitioner's guide to working outdoors with children, youth, and families*. New Society Publishers.

Harper, N. J., & Fernee, C. R. (2022). Unpacking relational dignity: In pursuit of an ethic of care for outdoor therapies. *Frontiers in Psychology*, 13(2), 1-5.

<https://doi.org/10.3389/fpsyg.2022.766283>

Hill, C. (2014). *Helping skills: Facilitating exploration, insight, and action*. Baltimore, MD: United Book Press.

Holliday, I. (2023, July 18). 'There's likely more to come': 2023 now B.C.'s worst wildfire season for area burned. *CTV News Vancouver*. <https://bc.ctvnews.ca/there-s-likely-more-to-come-2023-now-b-c-s-worst-wildfire-season-for-area-burned-1.6484507#:~:text=Nearly%2014%2C000%20square%20kilometres%20of,and%201%2C398%2C597%20hectares%20had%20burned>

Hooley, I. (2016). Ethical considerations for psychotherapy in natural settings. *Ecopsychology*, 8(4), 215–221. <https://doi.org/10.1089/eco.2016.0008>

Indigenous Corporate Training inc. (2015, December 2). *Indigenous peoples and the environment*. Ictinc. <https://www.ictinc.ca/blog/indigenous-peoples-and-the-environment#:~:text=Many%20Indigenous%20Peoples%20believe%20the,%27in%2C%20as%20its%20owners>

- Indigenous Corporate Training inc. (2017, March 29). *A brief definition of decolonization and indigenization*. Ictinc. <https://www.ictinc.ca/blog/a-brief-definition-of-decolonization-and-indigenization>
- Intergovernmental Panel on Climate Change. (2023). IPCC. <https://www.ipcc.ch/report/ar6/syr/resources/spm-headline-statements/>
- Jacobs, J. (1961). *The death and life of great american cities*. Vintage Books, A Division of Randon House, Inc. New York.
- Joschko, L., Pálsdóttir, A. M., Grahn, P., & Hinse, M. (2023). Nature-based therapy in individuals with mental health disorders, with a focus on mental well-being and connectedness to Nature—A pilot study. *International Journal of Environmental Research and Public Health*, 20(3), 2167. <https://doi.org/10.3390/ijerph20032167>
- Joseph, B., Dickenson, S., McCall, A., & Roga, E. (2023). Exploring the therapeutic effectiveness of genograms in family therapy: A literature review. *The Family Journal: Counseling and Therapy for Couples and Families*, 3(1), 21-30. <https://doi.org/10.1177/10664807221104133>
- Joseph, L. (2023). *Held by the land: A guide to indigenous plants for wellness*. Wellfleet Press.
- Khan, I., Shah, D., & Shah, S. S. (2021). COVID-19 pandemic and its positive impacts on environment: an updated review. *International journal of environmental science and technology: IJEST*, 18(2), 521–530. <https://doi.org/10.1007/s13762-020-03021-3>
- Kimmerer, R. W. (2013). *Braiding sweetgrass: Indigenous wisdom, scientific knowledge and the teachings of plants (First ed.)*. Milkweed Editions.
- King, B., & McIntyre, C. (2018). An examination of the shared beliefs of ecotherapists. *Ecopsychology*, 10(2), 117-126. <http://doi.org/10.1089/eco.2018.0014>

- Kinman, C. (2022, September). *What the forest can teach us*. Green Technology Education Centre. <https://gteccanada.ca/reader/what-the-forest-can-teach-us/>
- Kleespies, M. W. (2021). Connection to nature and relational values: An empirical study of human-nature relationships to explore essential factors in environmental education and environmental psychology. *Environmental Education Research, 27*(10), 1517-1518. <https://doi.org/10.1080/13504622.2021.1963418>
- Kopytin, A. (2017). The ‘green’ mandala: Where eastern wisdom meets ecopsychology. *Creative Arts in Education and Therapy, 3*(2), 3-16. <https://doi.org/10.15212/CAET/2017/3/2>
- Lee, C. C. (2007). Social justice: A moral imperative for counselors. *American Counseling Association Professional Counseling Digest*.
<https://www.counseling.org/resources/library/ACA%20Digests/ACAPCD-07.pdf>
- Lee, K., Cassidy, J., Tang, W., & Kusek, V. (2022). Older adults' responses to a meaningful activity using indoor-based nature experiences: Bird tales. *Clinical Gerontologist, 45*(2), 301-311. <https://doi.org/10.1080/07317115.2020.1808869>
- Maiteny, P. T. (2002). Mind in the gap: summary of research exploring “inner” influences on pro-sustainability learning and behavior. *Environmental Education Research, 8*(1), 299–306.
- Masterson-Algar, P., Jenkins, S. R., Windle, G., Morris-Webb, E., Takahashi, C. K., Burke, T., Rosa, I., Martinez, A. S., Torres-Mattos, E. B., Taddei, R., Morrison, V., Kasten, P., Bryning, L., Cruz de Oliveira, Nara R, Gonçalves, L. R., Skov, M. W., Beynon-Davies, C., Bumber, J., Saldiva, P. H. N., . . . Christofolletti, R. A. (2022). When one health meets the united nations ocean decade: Global agendas as a pathway to promote collaborative interdisciplinary research on human-nature relationships. *Frontiers in Psychology, 13*(4), 1-7. <https://doi.org/10.3389/fpsyg.2022.809009>

- Mayer, F. S., & Frantz, C. M. (2004). The connectedness to nature scale: A measure of individuals' feeling in community with nature. *Journal of Environmental Psychology, 24*(4), 503-515. <https://doi.org/10.1016/j.jenvp.2004.10.001>
- Mayer, F. S., Frantz, C. M., Bruehlman-Senecal, E., & Dolliver, K. (2009). Why is nature beneficial?: The role of connectedness to nature. *Environment and Behavior, 41*(5), 607-643. <https://doi.org/10.1177/0013916508319745>
- Merriam-Webster. (n.d.). Nature. In *Merriam-Webster.com dictionary*. Retrieved August 12, 2023, from <https://www.merriam-webster.com/dictionary/nature>
- Mitchell, K. (2023, July 24). Extreme rain in Nova Scotia exceeds once-in-a-century event. *CTV News Atlantic*. <https://atlantic.ctvnews.ca/extreme-rain-in-nova-scotia-exceeds-once-in-a-century-event-1.6492110>
- Murray, J., Wickramasekera, N., Elings, M., Bragg, R., Brennan, C., Richardson, Z., Wright, J., Llorente, M. G., Cade, J., Shickle, D., Tubeuf, S., & Elsey, H. (2019). The impact of care farms on quality of life, depression and anxiety among different population groups: A systematic review. *Campbell Systematic Review, 15*(4), 1-61. <https://doi.org/10.1002/cl2.1061>
- Nature. (2023, August 12). In *Wikipedia*. <https://en.wikipedia.org/wiki/Nature>
- Naor, L., & Mayseless, O. (2021). Therapeutic factors in nature-based therapies: Unraveling the therapeutic benefits of integrating nature in psychotherapy. *Psychotherapy, 58*(4), 576-590. <https://doi.org/10.1037/pst0000396>
- Nève-Hanquet, C., Pluymaekers, J. & Rastelli, S. (2023). Transgenerational dynamics with psychodrama: Uncovering your path with the landscape genogram. *Springer*. <https://doi.org/10.1007/s11620-023-00715-x>

- Newman, E., & Gabriel, L. (2023). Investigating clients' experiences of walk and talk counselling. *Counselling and Psychotherapy Research, 23*(1), 125-133.
<https://doi.org/10.1002/capr.12567>
- Nielsen, K. S., Clayton, S., Stern, P. C., Dietz, T., Capstick, S., & Whitmarsh, L. (2021). How psychology can help limit climate change. *The American Psychologist, 76*(1), 130-144.
<https://doi.org/10.1037/amp0000624>
- Oxford English Dictionary. (n.d.). Nature. In *oed.com dictionary*. Retrieved August 12, 2023, from <https://www.oed.com/search/dictionary/?scope=Entries&q=Nature>
- Palmer, H. (2022). "Think different" to prevent extinction. Connecting gregory bateson's cybernetic epistemology with posthumanism. *Murmurations, 5*(2), 14-27.
<https://doi.org/10.28963/5.2.3>
- Paré, D.A. (2013). *The practice of collaborative counseling & psychotherapy: Developing skills in culturally mindful helping*. Sage Publications, Inc.
- Pike, A.A. (2021). *Eco-Art Therapy in Practice* (1st ed.). Routledge.
<https://doi.org/10.4324/9781003091004>
- Pinto, L. P., Guimaraes, E., & Hirota, M. (2020). Municipal protected areas within the urban context of Brazil's Atlantic Forest. *Mod. Environ. Sci. Engineer. 6*(1), 1183–1195.
- Pompeo-Fargnoli, A. (2018). Ecofeminist therapy: From theory to practice. *Journal of International Women's Studies, 19*(6), 1-16. <https://www.proquest.com/scholarly-journals/ecofeminist-therapy-theory-practice/docview/2110269893/se-2>
- Pretty, J. (2002). *Agri-culture: Reconnecting people, land, and nature*. London: Earthscan.
- Rhizomenetwork. (2017, September 21). All manner of poetic disobedience [Video file]. Retrieved from https://www.youtube.com/watch?v=WjR3nP_VHR8

- Saha, L., Kumar, A., Kumar, S., Korstad, J., Srivastava, S., & Bauddh, K. (2022). The impact of the COVID-19 lockdown on global air quality: A review. *Environmental sustainability (Singapore)*, 5(1), 5–23. <https://doi.org/10.1007/s42398-021-00213-6>
- Sahni, P., & Kumar, J. (2021). Exploring the relationship of human-nature interaction and mindfulness: A cross-sectional study. *Mental Health, Religion & Culture*, 24(5), 450-462. <https://doi.org/10.1080/13674676.2021.1890704>
- Salinas, C. L. (2021). Playing to heal: The impact of bereavement camp for children with grief. *International Journal of Play Therapy*, 30(1), 40-49. <http://dx.doi.org/10.1037/pla0000147>
- Salmón, E. (2000). Kincentric ecology: Indigenous perceptions of the human-nature relationship. *Ecological Applications*, 10(5), 1327-1333. <https://doi.org/10.2307/2641288>
- Schwartzberg, L (Director). (2019). *Fantastic Fungi* [Film]. Moving Art Studio & Reconsider.
- Shen, J., Hung, B., & Fang, S. (2022). Horticulture therapy affected the mental status, sleep quality, and salivary markers of mucosal immunity in an elderly population. *Scientific Reports*, 12(1), 1-7. <https://doi.org/10.1038/s41598-022-14534-x>
- Sia, A., Tam, W. W. S., Fogel, A., Kua, E. H., Khoo, K., & Ho, R. C. M. (2020). Nature-based activities improve the well-being of older adults. *Scientific Reports*, 10(1), 1-8. <https://doi.org/10.1038/s41598-020-74828-w>
- Simard, S. (2021). *Finding the mother tree: Discovering the wisdom of the forest*. Knopf.

- Stedman, R. C. (2008). What do we “mean” by place meanings? Implications of place meanings for managers and practitioners. In *Understanding concepts of place in recreation research and management*, ed. L. E. Kruger, T. Hall, and M. C. Stiefel, 61–82. Gen. Tech. Rep. PNW-GTR-744. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station.
- Suzuki, D., & McConnell, A. (1999). *The sacred balance: Rediscovering our place in nature*. Greystone Books.
- Theresa, A. (2021, September 5). Posthumanism: A philosophy for the 21st century?. *The Collector*. <https://www.thecollector.com/posthumanism-philosophy-of-the-21st-century/>
- Topa, W. (Four Arrows), & Narvaez, D. (2022). *Restoring the kinship worldview: Indigenous voices introduce 28 precepts for rebalancing life on planet earth*. North Atlantic Books.
- Van den Berg, A. E. (2017). From green space to green prescriptions: Challenges and opportunities for research and practice. *Frontiers in Psychology*, 8(2), 8-11. <https://doi.org/10.3389/fpsyg.2017.00268>
- Vaske, J. J., & Kobrin, K. C. (2001). Place attachment and environmentally responsible behavior. *The Journal of Environmental Education*, 32(4), 16-21. <https://doi.org/10.1080/00958960109598658>
- Vidovic, V. V., Stetic, V. V., & Bratko, D. (1999). Pet ownership, type of pet and socioemotional development of school children. *Anthrozoös*, 12(4), 211-217.
- Wang, D. & Glicksman, A. (2013). Being grounded: Benefits of gardening for older adults in low-income housing. *Journal of Housing for the Elderly*, 27(1-2), 89-104. <https://doi.org/10.1080/02763893.2012.754816>

Wilson, E. O. (1984). *Biophilia*. Harvard University Press.

<https://doi.org/10.4159/9780674045231>

Windhorst, E., & Williams, A. (2016). Bleeding at the roots: Post-secondary student mental health and nature affiliation. *The Canadian Geographer*, *60*(2), 232-238.

<https://doi.org/10.1111/cag.12273>

World Health Organization. (2022, June 8). *Mental disorders*. World Health Organization.

[https://www.who.int/news-room/fact-sheets/detail/mental-](https://www.who.int/news-room/fact-sheets/detail/mental-disorders#:~:text=In%202019%2C%201%20in%20every,of%20the%20COVID%2D19%20pandemic)

[disorders#:~:text=In%202019%2C%201%20in%20every,of%20the%20COVID%2D19%20pandemic](https://www.who.int/news-room/fact-sheets/detail/mental-disorders#:~:text=In%202019%2C%201%20in%20every,of%20the%20COVID%2D19%20pandemic)

Wolf, K. L., & Housley, E. (2016). *The benefits of nearby nature in cities for older adults*.

Annapolis, MD: The TKF Foundation. Retrieved from

https://naturesacred.org/wp-content/uploads/2018/05/Elder-Brief_Final_Print_5-4-16.compressed.pdf

Zamora, A. N., Waselewski, M. E., Frank, A. J., Nawrocki, J. R., Hanson, A. R., & Chang, T.

(2021). Exploring the beliefs and perceptions of spending time in nature among U.S. youth. *BMC Public Health*, *21*(1), 1-8. <https://doi.org/10.1186/s12889-021-11622-x>