

ECOTHERAPY AS A MITIGATOR OF ECOLOGICAL LOSS AND GRIEF

by

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Abstract

In this hermeneutic research Capstone, the author explores how ecotherapy can mitigate the deleterious effects of ecological loss and grief in relation to climate crisis, urbanization, digitalization and breakdown of human-nature relationships. She discusses mental health and human connection in terms of human-nature connection as indicated by global practices influencing ecological trends producing experiences of ecological loss and grief while incorporating attitudinal, theoretical, and pragmatic trends of global influence and applicability to counselling. The author contemplates how trends in practice and policy lead to deterioration of the natural environment and loss of natural resources critical for sustenance and preservation of biodiversity and human well-being. She states that just as the future of the planet is uncertain, so is the fate of old and young. In current times, it is critical we work together towards a more sustainable future.

Keywords: climate crisis, ecotherapy, ecowellness, environmental loss/grief, framing, human-nature relationship, nature, sustainable

Acknowledgements

I would like to acknowledge and dedicate this to the keepers of the Earth. Thank you to those trailblazers that have upheld the spirit of the planet within realms of human life and healing.

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Chapter One: Introduction

Destruction of the natural environment and ecological loss are becoming more evident in the new geological era of the Anthropocene, in which human beings are now a cause and effect of global systems (Bakshi, 2018; Cunsolo & Ellis, 2018; Kavalski & Zolkos, 2016; Shaw & Bonnett, 2016). Human overpopulation and mass destruction of natural formations, life, ecosystems, and pollution contributing to climate change are increasingly diminishing natural ecosystems and biodiversity in nature, equalling ecological loss. With this notion of loss attends grief. Grief is a normal, human adaptive response to loss and a “legitimate response to ecological loss” (Cunsolo & Ellis, 2018, p.275). With more loss of nature to be expected, more grief can be expected to follow (Cunsolo & Ellis, 2018; Shaw & Bonnet, 2016).

In this Capstone, I examine how ecotherapy can promote well-being and mitigate the effects of ecological loss and grief. Ecotherapy is a holistic, systemic theory that emphasizes interconnectedness of all things and that healing takes place in the context of relationships, fundamentally in the nature-human relationship (Macy, 1995; Sackett, 2010). I explore impacts of ecological loss and manifestations of grief in relation to environmental diminishment. I discuss the viability of ecotherapy to mitigate the negative emotional and systemic impacts of natural degradation and explain how benefits of ecotherapy can be reciprocated back unto the planet. In doing so, I propagate several modes of ecotherapy and critiquing the implications of language used in relationships humans have with nature, or *framing* of the human-nature relationship (Antal & Drews, 2015; Hathaway, 2017). I posit how nature can be a relationship partner for inter-human relations in addition to being a viable therapeutic antidote for ecological loss and grief. Throughout this work, I present tangible ways and potential benefits of bringing nature into therapeutic practice. I leave the reader with a reflection and short story of a personal recent experience of loss to do with climate increase.

Purpose of the Study

In this qualitative research study, I endeavour to address how ecotherapy can provide relief and mitigate the continued effects of ecological loss and grief, with the goal of bolstering current research to support the use of ecotherapy and similar nature-based, ecowellness initiatives in counselling and everyday situations. I explore the theoretical origins of ecotherapy including its lineage and practices commonly used. I question how ecotherapy, an applicable psychology for sustainability of humans and planet, can provision Canada's growing and aging population – the largest it has yet endured. I intend to share how ecotherapy might circumvent additional environmental degradation through fostering improved human-nature connection and human interrelationships by reciprocating ecological awareness into a more sustainable future.

Ostensibly, when faced with climate crisis and limited resources, congenial human relations are exceedingly crucial for survival. As such, I promote a fruitful pedagogy for ecotherapy while underscoring a need for increased accessibility. I write in hopes that this document will inspire more research into ecology and ecopsychology and elicit more evidence in support of making ecotherapy foundational in the counselling field and ubiquitous in society. I aspire that my Capstone, like a singular water molecule, condensates with other works to form the clouds to precipitate change.

Definition of Terms

Anthropocene: The new human-dominated and human-impacted geological era the globe is entering or has entered in which ecological losses will be increasingly encountered as result of imbalance in the human-nature mutuality (Cunsolo & Ellis, 2018; Kavalski & Zolkos, 2016).

Assumptive World: “Fundamental beliefs that an individual holds regarding how the world works and how others and one's self are viewed. The assumptive world is thought

to provide individuals with a sense of safety and security in everyday life situations,” (Harris & Winokuer, 2016, p. 21).

Chronic Sorrow: “An ongoing response to losses that are continual and unending in Nature; the chronicity of the feelings and the ongoing Nature of the loss separate chronic sorrow apart from other forms of grief,” (Harris & Winokuer, 2016, p. 121).

Deep ecology: The philosophy and fulfillment of regarding all life forms or organisms equally important components of Earth’s combined and overarching, complete ecosystem. Deep ecology entails a cultural shift from anthropocentrism to ecocentrism and biospherical egalitarianism (Hibbard, 2003).

Disenfranchised Grief: “Refers to situations in which the loss is not recognized as valid... the grief response of the individual falls outside of societal norms, or in which the loss itself has a social stigma attached to it,” (Harris & Winokuer, 2016, p. 55).

Ecology: “The scientific study of the processes influencing the distribution and abundance of organisms, the interactions among organisms, and the interactions between organisms and the transformation and flux of energy and matter,” (Cary Institute of Ecosystem Studies, <https://www.caryinstitute.org/news-insights/definition-ecology>).

Ecotherapy: “A holistic, systemic perspective of therapy that questions the dominant worldview and modern values of Western science and philosophies by emphasizing human-Nature interconnectedness and encourages “openness to indigenous forms of knowledge and healing that preserve practices of environmental sustainability and connectedness,” (Davis & Atkins, 2009, p. 274).

Environment: “The complex of physical, chemical, and biotic factors (such as climate, soil, and living things) that act upon an organism or an ecological community and

ultimately determine its form and survival,” (<https://www.merriam-webster.com/dictionary/environment?src=search-dict-box>).

Framing: How relationships are represented in language through the use of analogies and metaphors (Antal & Drews, 2015).

Grief: A normal, adaptive emotional and physiological response to loss, including ecological losses (Cunsolo & Ellis, 2018).

Living Losses: “Losses that will remain as an ongoing presence in the life of an individual; the individual will continue to “live” with the loss experience. The ongoing Nature of loss will require continual adaptation and adjustment,” (Harris & Winokuer, 2016, p. 121).

Nature: Landscapes, geography, life, ecosystems, weather systems, ocean currents, seasons, and other patterns that have developed with the Earth.

Nonfinite Loss: “Loss experiences that are enduring in nature, usually precipitated by a negative life event or an episode that retains a physical and/or psychological presence in an ongoing manner,” (Harris & Winokuer, 2016, p. 121).

Overpopulation: “...occurs when a species’ population exceeds the carrying capacity of its ecological niche... from an increase in births (fertility rate), a decline in the mortality rate, an increase in immigration, or an unsustainable biome and depletion of resources,” (<https://en.wikipedia.org/wiki/Overpopulation>).

Transformative Learning: A process of learning that occurs with a shift in perspective drawn out of a person’s own insights, as opposed to having new knowledge or skills integrated into their perspective.

Well-Being: “The state of being comfortable, healthy or happy” (www.dictionary.com).

Significance of the Study

Humans' relationship to nature is imminently consequential to life on earth, including future generations, that will have to adapt to current and coming effects of ecological loss (Reese, 2016). This study is relevant not only to Preservation (Reese, 2016), but to improving the lives of human beings around the globe those around us leading to better relations, improved functioning, and a healthier, more sustainable environment. The foci of this essay are particularly significant for those striving to adapt to changes related to ecological loss, as well as those who have a favourable juncture of circumstances to incorporate nature into their lives and into their counselling practice. Along with other literature or reports that will be discussed below, this Capstone aims to support the idea that ecological loss and social repercussions are significant to citizens and stakeholders akin. On this planet, we all have some capacity to influence our environmental impact as human beings, and ecowellness counsellors are a unique position to invite positive change by inviting therapeutic connection with nature.

Chapter Two: Literature Review

Introduction

In this chapter, I elucidate upon my research around ecological loss relationally to its impact on human beings, and how ecotherapy can mitigate the negative effects of loss and grief. I explore types of grief humans manifest from experiencing ecological loss and suggest ecotherapy as a mitigator of countering the deleterious effects of environmental damage. I discuss how grief can be felt and exhibited by individuals, groups or the collective, and how societal values are reciprocated back unto the earth through the use of individual, societal and global protocols and practices (Antal & Drews, 2015; Bakshi, 2018; Cunsolo & Ellis, 2018; Hathaway, 2017; Koger & Scott, 2016; Reese, 2016; Shaw & Bonnet, 2016; Wamsler, 2017; Warber et al., 2015). With respect to the reciprocal human-nature relationship (Jordan et al., 2010), I discuss the relevance of language use and framing (Antal & Drews, 2015; Hathaway, 2017). Subsequently, I pair the role of nature as a relationship partner with intra and inter-human relations to postulate how ecotherapy is a viable therapeutic antidote for ecologically-related emotional distress within the context of global environmental crisis.

Environmental loss and grief can lend itself to vices such as egocentric narcissism or narcissistic self-entitlement (Gabrielsen & Harper, 2017; Shaw & Bonnett, 2016), nature deficit disorder (Louv, 2005), an array of mental illnesses (Cunsolo & Ellis, 2018; Greenleaf et al., 2014) and physical inactivity (Sackett, 2010; Walker et al., 2018). Poor human-nature relationships result from lack of restorative, reflective and consciousness-building experiences that come from immersion in green activities (Antal & Drews, 2015; Davis & Atkins, 2009; Hathaway, 2017), and lack of connection to nature breeds fear and lack of respect for nature, enabling continued anthropomorphic destruction of ecosystems, further straining human relations (Antal & Drews, 2015; Bakshi, 2018; Kavalski & Zolkos, 2016). I present research pertaining to

the efficacy of different modes of ecotherapy to alleviate symptoms of ecological grief and improve human relations while insisting on the omnipresent necessity of nature to every organisms' ability to survive, nourish, and rejuvenate. Nature is life-giving, and this truth implicates that ecopsychology is a valid theory and that ecotherapy is a credible application. I support ecotherapy as a viable mitigator of ecological loss and grief within the context of cognate theoretical perspectives and present ways of incorporating ecotherapy into counselling practice, including in urban settings. Throughout, I discuss benefits, challenges and limitations of ecotherapy. I conclude with comments of future direction for research and care, including recommendations that integrate ecotherapy aspects into therapeutic practice and broader civilization.

Background to Ecotherapy

Development of Ecotherapy and Natural Medicine

Ecotherapy is concurrently ancient and novel: it is an emerging field that acknowledges nature has always been imperative to human livelihood. Established civilizations inhabitant of earth have long used natural remedies for healing illness, for example, by Indigenous People of the North and South America and Traditional Chinese Medicines. These archaic knowledge sources comprise the bases of many of today's do-it-yourself ("DIY") homeopathic remedies that people can procure online and self-administer. Ecotherapy, while predicated on the philosophy that nature is inherently healing, ancient and transgenerational, as a term was not coined until more recently.

Later in the human trajectory, after the Industrial Revolution, gardens of medicinal plants were capitulated for pavement and pharmaceuticals (Hibbard, 2003). Today, homeopathic medicines are commonly sold over-the-counter found in the forms of herbs, teas, salves, tinctures, oils and gels and can be purchased at specialty, grocery, health food, department and

drug stores. Naturopaths are largely considered healing professionals whose medium consists of organic remedies which were used by healers of earlier times yet who now strive within a systematized profession, even despite the dominant Western medical view endorsed in North American society.

Ecotherapy amalgamates the restorative benefits of nature with mainstream counselling therapy, derived from combining ecology and psychology into ecopsychology. In the counselling field, other terms for ecotherapy include ecowellness, eco-counselling, deep ecology and nature therapy among countless others (Davis & Atkins, 2009). Ecotherapy is the practice or application of the findings of research done within the theoretical field of ecopsychology. They synonymously concern studies at the intersection of psyche and ecology. Ecopsychology approaches view the mind or psyche as intertwined with – and inseparable – from its environment, and aims to decipher how nature impacts mental health, psychological, social, emotional and spiritual well-being. Ecology as a defined term emerged in the mid-19th century but its definition has shifted over time along with the pertinent views of theorists (<https://www.caryinstitute.org/news-insights/definition-ecology>, n.d.).

Cognate Environmental Movements

Precedent environmental movements created favourable conditions for inaugurating the ecotherapy movement by advancing eco-conservation and sustainability trends in combination with other relevant aspects of importance, such as the emotional, social, psychological and spiritual needs of the person in addition to the basic concrete physical. The churning of the environmental movement of the 1960s, which began in response to the dawning realization that industrialization ignited an environmental crisis, is said to have engendered the ecopsychology movement (Hibbard, 2003). Ecofeminism emerged in the 1970s, illuminating the connection between women and nature, particularly with regards to systems that oppress and exploit. Similar

to ecowellness movements and ideological tenets of ecotherapy, ecofeminism worked to critique and deconstruct patriarchal, capitalistic, anthropomorphic, androcentric, medicalized Westernized worldviews predominant in North American society (Hibbard, 2003). Other individual and community movements that complement ecotherapy include no-waste ecovillages, buying local, community gardens, sustainable agriculture, and opting for alternative energies sources to burning fossil fuels. The aforementioned are just some of the cognate movements to ecotherapy that function to protect the integrity of our ecosystems and strengthen our ability to integrate nature in our lives while preserving resources.

Ecological Loss and Grief

Ecological Loss Including Climate Crisis

Ecological loss is illustrated all over the planet in superstructures and pollution that are visible from space, as well as on the ground in the day-to-day lives of people all over the world. Climate change is tangible, and well-documented in a recent Intergovernmental Panel on Climate Change (IPCC) special report from a variety of scientists from all over the world stating that the planet is 1.5 degrees Celcius warmer than in pre-industrial times and that this change is in relation to global greenhouse gas emissions (IPCC, 2019). From the Arctic circle where frozen landscape and land-sized masses of ice are disappearing into the oceans, to fires in the reaches of the Australian outback to the foothills of California, desecrated and vanished Appalachian mountaintops, coast to coast and land to sky, it should suffice to say that ecological losses are global.

Groups and individuals experience loss in different ways. How people process, feel, respond to, and express their emotions differently can depend on various characteristics and circumstances such as their region, country, family life, culture, ethnic background, gender, past experiences and current lifestyles, socioeconomic status, and level of support (Neimeyer et al.,

2011). Ways that groups experience loss of their natural environment or habitat or ecosystem can be that they no longer have access to a food source, land, or way of life that they once did (Cunsolo & Ellis, 2018). Their quality of life could be degraded, or they may have had to bear witness to or feel the repercussions of their culture or identity being eroded with the loss of their homeland, natural environment, sustenance, or culture. Loss of freedom from constant worry or *chronic sorrow* (Harris & Winokeur, 2016), or even loss of reprieve from pollution are impactful. The obscurity of grief responses and variables does not allow for easy identification of ecological loss and grief occurrences.

Ecological Grief as a Response to Environmental Loss

Ecological grief can be responded to in a multitude of ways (Antal & Drews, 2015; Shaw & Bonnet, 2016). A 1987 popular song by the band R.E.M., “It’s the End of the World as We Know it and I Feel Fine,” is depictive of how ecological grief is exuded by society, wherein people are so tuned in to digital entertainment, consumerism and social media, and out of ecological events, that it is easy to maintain states of ignorance and indifference. Distraction from pain is often used as a coping mechanism for managing grief (Neimeyer et al., 2011). Technology offers distraction from distressing thoughts and emotions as well as unlimited neural rewards, which can result in technology addiction (Alexander, 2008).

Ecological grief is complicated and comprised of *living losses* that are continual or ongoing (Harris & Winokuer, 2016). Mainstream North American society and a growing number of other societies entrench capitalist and materialist values, propagating consumerism and perpetuating commodity production, environmental degradation and ecological destruction. Environmental grief is a form of *disenfranchised grief* (Neimeyer et al., 2011) due to social modeling and the status quo in society that condones environmentally harmful values and practices while ignoring real human needs. Anti-ecological views are normalized in society, so

they can be dismissed as innocuous, or, alternately, recognized as destructive or negligent but ignored or denied through rationalization and compartmentalization or *psychological splitting* (Shaw & Bonnet, 2016). Even if people notice that shared pastimes contribute to environmental damage and planetary desecration, they may lack the ability, resources or knowledge to make more sustainable changes. Values and practices humans keep are destroying the ecosystems and planet they live in, for instance, driving personal fossil fuel burning vehicles, choosing disposable and synthetic products, clearcutting trees, and having large families and domestic pets in suburban single-family dwellings that contribute to urban sprawl, encroaching on and destroying ecosystems.

The necessity to consider ecotherapy as a potential cure for grief due to ecological diminishment is that persistent damage of the biosphere in every aspect will likely continue, often without acknowledgment. In her (1992) *Bioscience* article, “The Ecology of Grief”, Phyllis Windle explains her coming to realization as a hospital chaplain that she was mourning for the trees outside her work as she had seen many people grieve their loved ones. She notes: “Ecologists are both blessed and cursed with seeing natural systems clearly... mourning for ecological losses has no simple or predictable path,” (p. 365). Since our external worlds and internal states make it difficult to emotionally recognize and respond to environmental losses, it makes them more difficult to grieve, protracting the grieving process and emotional distress (Bakshi, 2018; Cunsolo & Ellis, 2018; Shaw & Bonnet, 2016). Dismissing ecological grief as anthropomorphic and so unnecessary or irrational to address only prolongs the process of ecological mourning, further separating us from nature.

Egocentric Narcissism as a Grief Response

Scholars say that humans are displaying egocentric narcissism in their grief responses to environmental degradation (Gabrielsen & Harper, 2018; Shaw & Bonnet, 2016). In their 2016

article entitled, “Environmental Crisis, Narcissism, and the Work of Grief”, authors Shaw and Bonnett reframe the “normative focus on selfish, self-destructive consumption” (p. 565) and accompanying narcissistic self-obsession as a personal defense mechanism and grief response to the desecration of the Earth. In a generation predominated by digitalization, “selfie” sharing and social media, people are increasingly in the escaping natural reality, entranced in worlds of technology entertainment, self-obsession and addiction. These allow people to dissociate from one’s true self and genuine feelings, including grief, and leaving the etiology and symptoms of the grief unaddressed.

Ecological grief is a form of *disenfranchised grief* (Harris & Winokeur, 2016). Since ecological grief is not widely acknowledged, people have negligible awareness of its effects (Cunsolo & Ellis, 2018). Depending on where you live, your occupation, support systems and other group and specific variables, grief can be an uncommon or even taboo topic of discussion (Neimeyer et al., 2011). If ecological grief is not largely considered a legitimate loss to grieve, support is not available in the way it might be for bereaved individuals and grief responses can go unaddressed (Cunsolo & Ellis, 2018). The intricacies of felt experience accompanying an epiphany that the future of our planet is dim and that we are contributing to its destruction can be overwhelming and invoke defensive responses such as psychological splitting and avoidance (Shaw & Bonnett, 2016). Denying responsibility for negative environmental impacts, feeling helpless, or lacking agency or ability to counteract ecological crises can trigger feelings of anxiety, despair and hopelessness, and this contributes to mental health disorders (Cunsolo & Ellis, 2018; Shaw & Bonnet, 2016). Anger and resentment could be catalysts for the culmination of the egocentric narcissism and self-entitlement that some scholars have observed is prevalent and growing outside of North America to other societies (Bakshi, 2017; Shaw & Bonnet, 2016). Alienation from the natural world can occur with lack of access to nature and contribute to the

human-nature disconnection phenomenon present in materialist cultures, also termed *nature deficit disorder* (Louv, 2005).

Trauma as a Response to Environmental Crisis

Porges' polyvagal theory gives a neurophysiological basis to a realm of researchers' findings about defensive reactions to the environmental crisis, including Shaw & Bonnett's (2016) findings about avoidance and psychological splitting. Stephen Porges has discussed at length how humans negotiate the fight-or-flight physiological response to a perceived threat, describing how when we cannot escape a threat, lower brain function override of cortical areas and subsequent sympathetic activation occurs, resulting in shut down. People can access higher brain functions in states of safety more than in states of danger, so they are more prone to taking sustainable action when they feel safe, but this requires cognitive analysis of the danger.

Pragmatism, or taking action in the face of challenge, results when we recognize a perceived threat and call on the wise mind or wise brain to respond to the whole situation. This entails considering options or solutions as opposed to taking on a sense of vulnerability, which results in sympathetic arousal and compensatory behaviours. Part of the problem for overcoming physiological responses concerning ecological loss is that we often are not consciously aware of what the triggers are that activate our physiological fear responses. Concurrently, environmental crises can put people at an increased risk for trauma and environmental stress, an epigenetic risk factor to trauma that is "associated with a likelihood of sustained posttraumatic difficulties" (Briere & Scott, 2015, p. 26).

Trauma is a trigger for the hypothalamic-pituitary-adrenal (HPA) axis and the body's associated sympathetic response, and environmental crises can be cyclically retraumatizing. Porges' (2004) journal article delineates the process of how this subconscious system is responsible for how we detect threats and safety, and how these brain structures have evolved to

regulate “both social and defensive behaviours” (p. 19). For prosocial functions to occur, an individual must perceive safety. Otherwise, the body will perceive danger, engage the autonomic nervous system, and either mobilize (fight or flight) or immobilize (freeze). Porges coined this process of neural circuits distinguishing between safe and threatening people and situations “neuroception” (Porges, 2004). Porges states: “Faulty neuroception might lie at the root of several psychiatric disorders, including autism, schizophrenia, anxiety disorders, depression, and Reactive Attachment Disorder” (p. 19). Additional scientific research to corroborate the effects of nature on the nervous system provide a stronger physiological evidence base for mainstream ecotherapy practice.

The effects of trauma can manifest in a multitude of ways, including in thoughts, feelings and behaviours of individuals, in symptoms that can become mental health issues, including anxiety, depression-related disturbance, chronic stress, somatic disturbance, sleep disturbance, psychosis, and substance use (Briere & Scott, 2015; Gabrielsen & Harper, 2018). In “The Globalization of Addiction: A Study in Poverty of the Spirit” (2008), Bruce Alexander talks about the role of dislocation in causing addiction, how free market society in a globalizing world causes dislocation, and how the theory of dislocation in addiction can include all forms of addiction, such as technology use that have exacerbating negative ecological effects. In his book, dislocation is generally discussed in relational terms and includes physical uprooting from environments where connection to land was represented as a relationship between person, culture, spirits and representations of one’s culture, self and identity.

The Objectification of Species

Objectification of people, animals, insects and plants is witnessed in social media and consumer advertisements constantly in mainstream North American society. Perhaps the bombardment of surreal contributes to the human population’s relative sense of comfort in their

existence on Earth: strips of trees line roadways along subdivision developments and highways, creating a sense of nature without the benefits of having a wilderness; roadways, malls, and housing complexes are often named after plant and animal species that flourished in the area that construction decimated. Lack of biodiversity in multiple habitats is resultant from years of gentrification of wildlife into interstices between suburban home lots, spotted with concrete piles of buildings and twists of roadways spreading to neighbouring ports and cities. Modern day people essentially live in societies where they “debate about precisely what wilderness is, its status as a cultural artifact... and whether it really exists at all,” (Greenway, 2009, p. 133). Images that depict species in ways they often do not exist in the way that they are made out to in the advertisements can shock and disrupt a person’s sense of trust and security when realities appear as contrary to images that informed their *assumptive world* (Harris & Winokeur, 2016). From a deep ecology perspective, when our connection to nature is harmed, or we are deracinated from our natural environment, or ecosystems are damaged, we lose a sense of place in which we anchor our identities. Loss of identity becomes a real problem when we look at what it means to protect our homes, the Earth, and to protect and care for ourselves and our communities.

Objectification of Animals

Objectification of animals and other species occurs, too, as they are made spectacles of advertisements that have nothing to do with – or pose harm towards – animals in their natural environment. Telus advertisements, for cell phone and internet plans, for instance, are rife with pictures of endangered species of animals on white backdrops, completely removed from any semblance of their natural ecosystem. What this does is mutually reinforce the idea of say, a snow leopard, rhinoceros or sea turtle as existing somewhere but that the place of existence is not relevant. In addition, animals and plants are often presented as healthy and presented as happy or contented in appearance. Endangered animals often come from threatened or toppled ecosystems.

Robinson (2009) notes that “ecopsychology”, taken from its Greek root words, literally means “the story (or word) of the soul of the home” (p. 26). With the absence of our “ecos”, meaning our home within the interconnected systems of living things – ecosystems – we are dislocated and disconnected. As noted in “Portrayals of Endangered Species in Advertising: Exercising Intertextuality to Question the Anthropomorphic Lens”, the World Wildlife Fund (WWF) is seeking to counteract animal objectifying, anthropomorphic perspectives using advertisements that use intertextuality and paratext to bring awareness to popular discourse “with the intent of extending the bounds of personhood to non-human animal species” (Aswad, 2019, p. 118). More time, effort and research are needed for follow-up to identify changes in public lens and any corresponding environmental impacts.

Objectification of Plants and Landscapes

Kopnina (2013) raises questions about the place of plants in contemporary urban settings with homage to bioethics: “Despite conceptual plurality and socio-cultural complexity of human-plant relationships, social scientists fail to note how the perception of ‘greenery’ has objectified plants in urban environment,” (p. 10). Kopnina (2013) notes that without considering bioethics in human-plant relationships, exploitation of natural elements might be overlooked in urban settings. Likewise, Ryan (2012) condemns the representing of living beings through vocabularies of performing and visual arts:

A performative model of aesthetics constructs hierarchic relationships between the plant and the human. It frames the plant within a picture postcard, puppeteers the plant to perform for an audience, or evaluates the plant for its formal beauty as an object in the landscape. (p. 111)

They go on to delineate that when the land is not bearing aesthetically pleasing foliage, it is often disparaged as “valueless, monotonous, empty, ugly, poised for conversion by agriculture, or in

need of resuscitation through the artist's touch," (p. 111) and that aesthetic discourse in framing of landscape scenes so that they become "seens" that are only distantly appreciated (p. 117). Aesthetic judgment, entailing predetermined, closed categories of features such as symmetry have contributed to fragmented and destructive conceptualisations of landscape (Bakshi, 2018; Ryan, 2009). Floraesthesia (Ryan, 2009) entails sensory engagement with flora that is naturally invigorating in its being wild, which underscores a need for more untended, unaltered landscapes and unfettered growth of native plant species that support biodiversity.

In "Responding to Emotional Aspects of Environmental Loss: Implications for Landscape Architecture Theory and Practice" (2018), Anita Bakshi queries why more has not been said in current literature about emotions connected to human environmental impacts, and explores the role of landscape design in addressing environmental loss and the change of places of personal and group significance. She contends that landscapes should be designed to "consider the changes in ecological sciences where focus on the fixed endpoint of ecological stability and equilibrium have shifted to understandings of resilience and complexity within dynamic systems" (p. 51). Bakshi states that this shift in perspective could result in the de-centering of humanity, creating space for acknowledgement of humans' dependence on nature for survival. While it is generally those people that are more connected and observant of the natural world that are most hitherto emotional and psychological pain of ecological loss (Cunsolo & Ellis, 2018), more interaction with nature can lead to increased care and concern for nature, as well as engagement in more environmentally-friendly policy and practices (Reese, 2016). This evidence suggests that ecotherapy is a contributor to extending quality of life for all living organisms on the planet, including resulting in improved human relations.

Human Objectification

In his chapter, “Psychotherapy as if the World Mattered” in *Ecotherapy: Healing with Nature in Mind* (2009), Larry Robinson illustrates the objectification of the human species as “human machines”, and how the mainstream majority of practitioners offer a system of counselling delivery that “will, when the glitches are worked out, deliver mental health care like a well-oiled machine,” yet goes on to elucidate how the language involved in this general treatment of individuals reveals an implicit analysis of human beings alike that of a computer. Humans are discussed as objects and therefore thought of and processed as objects (Robinson, 2009). Recognizing that qualities of speed and efficiency are often prioritized in production-oriented systems is a start to deconstructing the impacts of these systems on human beings and the environment. When writing about conditions causing human machines to “break down”, Robinson contends that “symptoms and conflicts occur because human beings are not machines”, furthering that objectification, or treatment of a human as an object, is wounding to the soul (p. 25). Symptoms of human psychiatric disorders result from conflicts of our internal drives and societal pressure to conform and include relational, psychological, emotional, and spiritual stressors.

Nature Deficit Disorder (NDD)

In 2005, Richard Louv introduced nature deficit disorder (Sackett, 2010), a nonclinical term he used to describe a cluster of symptoms he viewed to be associated with lack of access to the natural environment. In “Ecotherapy: A Counter to Society’s Unhealthy Trend”, Corrine Sackett (2010) explicates that children’s lack of physical and sensory activity corresponding to time spent outdoors is due to societal fears of the world outside the safety of their homes and institutions, including violence, traffic and strangers. Ryan Reese (2016) notes in his study of ecowellness holistic therapy that: “The twenty-first century has brought with it an ever increasing

fear-based awareness about our species' connection with the natural environment," (p. 345). In today's world of overpopulation and climate crisis, the conditions for pandemics like COVID-19 are increased (Ogden & Gachon, 2019). People who are afraid of the pandemic, illness, death and infecting others including loved ones, including following government regulations, have stayed in their homes. Many people have been isolated with quarantine laws and guidelines, out of fear and out of physical necessity to prevent the spread of the infection, restricting social circles and access to recreational, spiritual, necessary and supportive services.

Although NDD is not, at least not yet, included in the North American mental health field's Diagnostic and Statistical Manual (DSM-5) or the International Classification of Diseases (ICD-10), a growing number of scholars support the connection between time spent in outdoors and mental and physical well-being, including in the social and natural sciences and humanities (Stewart, 2107). Amongst these fields, the human-nature relationship has been resounded as integral to human well-being. Counsellors are particularly in unique and opportune positions to help clients identify ways to increase their sense of control around uncertainty and change to manage fear and anxiety (Reese, 2016). Integrating ecotherapy into therapeutic epistemology "broadens our conceptualization of client wellness," (Reese, 2016, p. 237). As ecotherapy gains in popularity, so do the holistic, interconnected principles it supports.

As stated in "Addressing 'Nature Deficit Disorder': A Mixed Methods Pilot Study of Young Adults Attending Wilderness Camp", in which the authors outlined their four-week wilderness therapy pilot study, Warber et al. (2015) completed research to see how urbanization and lack of outdoor activity contribute to Nature Deficit Disorder (NDD) and pose chronic health conditions for youth. Specifically, the authors sought to find out how nature-based camping experiences can increase feelings of nature connection and promote well-being. Participant well-being was divided into six areas of nature-related measures: exposure, skills, knowledge,

willingness to lead, sense of place, perceived safety and nature connection. Well-being was measured with respect to relaxation, perceived stress, sense of wholeness, positive and negative emotions, and transcendence. Hikes and nature-based overnights were ranked under socializing with friends as the most enjoyable and intellectually stimulating. Participants found the hardest activities were changes from daily routine, for example, decreased computer time and overnight hiking camping trips and rustic accommodations. The authors concluded that immersion in nature “is cognitively restorative, reduces stress, and promotes a sense of place” (p. 2). With youth inactivity on the rise, self-esteem and social engagement are negatively affected, and research points to green exercise as having additional benefits to just having nature exposure with no exercise (Sackett, 2010). Sackett (2010) informs: “Given this clear connection between physical activity and mental health and given the current societal constraints, counselors have an opportunity to inform societal change,” (p. 136).

The Human-Nature Relationship

Ecological losses impacting humans have been linked to an array of chronic and acute mental health experiences that develop co-morbidly to and intensify distressful emotional responses of grief, such as despair, helplessness and hopelessness. These can culminate in anxiety, despair, post-traumatic stress and addiction (Cunsolo & Ellis, 2018). It might be challenging to see how ecotherapy could be beneficial for those who are increasingly dissociating from the outside world with technology, social media, and consumerism, wherein commodities are used to provide distraction, stress relief, and coping mechanisms for environmentally-related problems. When we have been raised in societies portraying messages that we can live lavishly without concern for the environment, we get the message that we are not in danger and that our planet will sustain us. Expectations about our futures are constructed and shaped throughout our lives in the actions, practices, values and priorities of the societies we live in. When what we know and have learned

to expect comes into question, so do our assumptive worlds (Harris & Winokuer, 2016), which are thought to give us basic security. Fears and projections about the future can manifest into feelings of hopelessness and anticipatory grief from expectations about environmental outcomes if humankind continues its current trajectory, along with dreams projected in the future.

Studies indicate that connecting with nature can enable a shift away from egocentrism to biocentrism, cyclically reciprocating improved human inter-relations (Antal & Drews, 2015; Bakshi, 2017; Shaw & Bonnett, 2016). Connection with nature coincides with human well-being and being connected to the natural world facilitates nature-connection (Bakshi, 2017; Reese, 2016). Meanwhile, feeling connected to nature leads humankind to reciprocate well-being unto nature, which dotes well upon humanity (Bakshi, 2017; Davis & Atkins, 2009). Recognizing the magnitude of nature in international relations as a precept of the larger ecosystem we live in and are part of in the biosphere (Kavalski & Zolkos, 2016).

In the article, “EcoWellness and Guiding Principles for the Ethical Integration of Nature into Counseling”, Reese (2016) recognizes how fear has been introduced as a paradigm for the human-nature relationship, increasing fear-based awareness about human connection to the natural environment and that happiness and nature connection are correlated. The human-nature relationship is echoed in Antal and Drews’ “Nature as Relationship Partner: An Old Frame Revisited” (2015). In the introduction, the authors note that “humanity’s relationship with nature has turned toxic” (p. 1056), and investigate how framing of language plays out cognitively, such as in the use of analogies and metaphors associated with different ways of thinking, or frames. People often refer to nature as if it were itself a being, and framing of language shows that people think about nature in a living, human way (Antal & Drews, 2015). Interestingly, defense mechanisms employed in both human interrelationships and those employed in human-nature relationships are the same, including: denial, repression, suppression, rationalization,

procrastination, shunning of responsibility, guilt, shame, anxiety, despondence, anger, and any combination (Antal & Drews, 2015; Bakshi, 2018; Cunsolo & Ellis, 2018; Greenleaf et al., 2014). Precarious planetary conditions can only be expected to worsen with global warming, human overpopulation and destruction of ecosystems. However, eco-therapists can be instrumental in helping clients identify triggers and feelings associated with climate change and ecological loss as well as in reconstructing human-nature relationships (Shaw & Bonnett, 2016).

Antal and Drews (2015) argue that the framing of analogies and metaphors associated with interpersonal relationships are often transferred to the human-nature relationship, and that:

To improve the relationship, we have to open up ourselves to signals from the environment and understand how the defenses work, identify and correct errors in thinking and learn to tolerate frustration, anxiety, sadness, and shame... the same steps of psychological development are needed to make our relationship with nature work as in our interpersonal relationships. (pp.1064-1065)

Reframing the human-nature relationship in terms of kinship and reflecting interconnectedness can more accurately describe its mutuality instead of potential threat in headings like “climate wars” (Kavalski & Zolkos, 2016). Indeed, ecotherapy aims to amalgamate knowledge of indigenous and Earth-based cultures in order to gain a more multidimensional, inter-relational perspective in which humans are viewed within the context of globally interconnected environments (Davis & Atkins, 2009). As such, the health of individuals and their relationships are contingent on the health of our planet and our relationship with it.

Ecotherapy Theory and Practice

Ecotherapy is the activity, practice or application of ideas derived from ecopsychology, a term dictated by Theodore Roszak in 1992, yet which still eludes a clear, congruent definition (Hibbard, 2003). The possibilities for ecotherapy are boundless: traditional psychotherapies and

mainstream counselling techniques can be adapted into ecotherapy (Buzzell & Chalquist, 2009) such as with incorporating narrative into green exercise or somatic psychotherapy with nature exposure or imagery. Ecotherapy has been found to be more effective than traditional office-setting therapy alone: For instance, cognitive behavioural therapy (CBT) was found to be more effective in treating depression when undertaken in a forest rather than clinical setting or control group (Kamitsis & Simmonds, 2017).

As a nature-based form of psychotherapy, ecotherapy is found at the ideological praxis of inner self, or psyche, and outside environment and ecosystems, and so is a holistic type of therapy that involves body, mind, natural world, and – potentially, depending on the client – spiritual components. Ecotherapy does not eschew religious beliefs that respect nature: In an article entitled, “Enhancing Ecological Consciousness Through Liturgical Acts of Doxology and Lament”, de Klerk (2014), in light of concern for our planet, its resources and organisms, calls for a narrative approach that incorporates “our stories, the Earth’s story and the story of the universe... within God’s story,” (p. 1). He invites us to dwell in love for creation, which reminds me of *deep ecology*. Regardless of creed, the common theme for ecotherapy in this Capstone is that we have the Earth, and the Earth and all its resources and life forms should be revered. We are all closely knit in our global community.

Kamitsis and Simmonds (2017) research supports Theodore Roszak’s contention that we are sympathetically connected to life-giving Mother Earth: They found that both active and passive ecotherapy activities are effective in alleviating stress and anxiety as well as improving attention and self-esteem. Active ecotherapy is described as involving physical activity – like green exercise, outdoor living, expedition and horticultural activities – whereas passive ecotherapy is defined as having “connection with the aesthetic elements of nature,” (p. 231). Active forms of ecotherapy have a broad evidence base, with studies covering more vigorous

activities, such as hiking, but also other forms of ecotherapy like animal assisted therapy are effective in treating various symptoms and disorders, from anxiety and depression to interpersonal conflicts, schizophrenia and substance use (Greenleaf et al., 2014).

The Importance of Grieving Ecological Loss

Funerals, commemorations, and celebrations for spirits of loved ones have frequented cultures over time and space. In her (1992) *Bioscience* article, “The Ecology of Grief”, Phyllis Windle discusses the usefulness of ritual and benefits of grieving ecological loss. Ritualistic activities provide a place of emotional outlet and sanctioning of grief, a place to share support, and serve as a rite of passage between stages of initial trauma and grieving environmental loss (Bakshi, 2018; Neimeyer et al., 2011; Windle, 1992). Honouring the pain of loss is an important part of grieving our world as well as our current and prospective quality of life (Bakshi, 2018; Hathaway, 2017). We can experience confusion, pain, denial, anger, sorrow, fear and regret of what is lost, of the prevailing human condition, and for what is projected in the future for us, for progeny, and for countless other species.

Work That Reconnects (WTR)

Hathaway (2017) refers to the nature and well-being connection in terms of Joanna Macy’s Work that Reconnects (WTR) as “a transformative learning process that endeavors to help participants acknowledge, experience, and understand the emotions that may either empower or inhibit action to address ecological crisis” (p. 296). Hathaway draws on ecopsychology, transformative learning and neuroscience perspectives in his article, which facilitates a fitting ideological perspective to ecotherapy. Macy’s WTR incorporated Buddhism, political activism and systems theory as well as ecopsychology. Both theorists relate that transformative action results from acknowledging and responding to emotions that are repressed or otherwise blocked from awareness. Therapeutic relief occurs through refocusing blocked, frozen, despondent

emotions; a transformative process that brings about motivation for change by activating hope. Part of the transformative learning process in the WTR entails changing mental associations and conditioned responses by drawing from insights the client holds based on their thoughts, feelings, values and beliefs. Hathaway (2017) points out the disorienting nature of the ecological crisis in that capitalist production and consumerism persist despite a planetary need to reform:

While the dominant assumption of capitalist industrial societies has been that ever-increasing consumption, economic growth, and resource extraction would result in wealth and well-being for all, the ecological crisis calls these assumptions into question by demonstrating that our current path is not sustainable. (p. 298)

Macy (1995) elaborates about how growth and change only come through pain. More research into how transformative nature work including exposure, immersion and imagery might affect propensity to change is needed to better understand how ecotherapy can help mitigate the biopsychosocial-emotive and spiritual effects of environmental loss and grief.

Transformative Learning Through Ecological Loss

Hathaway (2017) recognizes the significance of experiencing pain without remaining in it. He describes how the transformative learning practice of breathing in pain felt for the environment and allowing it to grow and move within the body can help facilitate a “perceptual shift towards a wider and more inclusive sense of self, a more emergent and collective understanding of power, and fuller sense of time,” (p. 307). Davis and Atkins (2009) argue that the practice of ecotherapy has expanded the definition of mental health and therapy from one with an emphasis on individual autonomy to one that augments our capacity to experience a mutually enhanced relationship with nature. As such, the paradigm of ecotherapy includes physical and spiritual, natural and psychological needs; all are inexorably intertwined. The culmination of epistemological intercepts embodied by ecotherapy may embed the shifts needed

for humanity's survival within the context of planetary health, physical, social, spiritual and mental health being inseparable.

Nature as a Restorative Environment

In their (2012) article, "EcoWellness: The Missing Factor in Holistic Wellness Models", Jane Myers and Ryan Reese discuss EcoWellness in terms of holistic wellness, spirituality, environmental identity and transcendence. These components mirror those put forth in other modes of ecotherapy that function under different dictions, including ecotherapy, nature-based therapy, green therapy, and ecowellness. A commonality of these paradigms is that they consider nature a restorative environment and emphasize that when natural ecosystems are diminished, a powerful resource is lost:

Now, in a time when all ecosystems are damaged, and population and poverty are burgeoning, the remaining islands of more or less pristine natural areas we've named "wilderness" still can provide healing for those with the time and means for visitation and psychological immersion. What was once normal and familiar territory to our ancestors has recently, evolutionarily speaking, become rare and is now at great risk. Yet it still retains an awesome power. (Greenway, 2009, p. 132)

Retaining the strength and abundance of natural resources is, however indirectly, part of the ecotherapeutic counselling work with clients and nature because fostering connection to nature fosters improved human-nature and interhuman relationships. So, ecotherapists and other ecowellness counsellors are not just holding space for their clients. On a greater scale, they are keepers of our ecosystems.

White et al. (2019) completed an empirical research study that concluded that people need at least 120 minutes in nature each week to benefit well-being. Almost 20,000 participants' self-reports on health and well-being in the previous seven days was examined in association with

their recreational nature contact in comparison with having no nature contact. Those who spent 120 minutes or more in nature had a significantly greater likelihood of positively reporting on general health and well-being. The researchers controlled for individual and neighbourhood factors, including age, health issues, location and green space, and determined that across these variables, that the 120 minutes of nature was critical to getting the health and well-being benefit regardless of how and in what increments the 120 minutes of nature time was achieved (White et al., 2019). The study gives evidence to support the psychological and physiological benefits of being in nature, but what about individuals without wilderness or green space access? Incorporating nature into urban settings is discussed further along in this document.

Wilderness Experience

Following the holistic perspective embodied by ecotherapy, in “The ‘Wilderness Experience’ as Therapy”, Greenway (2009) describes the wilderness experience as something that brings about dramatic intrapersonal change through different modes of therapy being interwoven. Narrative, dialogue, contemplation and more abstract forms of counselling therapy, like art and music, are crucial to understanding human-nature relationship dynamics and the transformative learning process. Greenway (2009) writes:

When one is alert to the bridge between nature and culture within every word, metaphor, and symbol, language not only stores experience and becomes abstract but floats in the field between cognitive activity and the context through which one moves. (p. 134)

Other ecotherapy activities, like adventure therapy, green exercise, outdoor living, hiking, foraging, and nature crafting share elements of the wilderness experience, like agency and sense of place, that encompass aspects of one another in dynamic and fluid ways.

Gabrielsen and Harper’s (2018) article, “The Role of Wilderness Therapy for Adolescents in the Face of Global Trends of Urbanization and Technification”, considers urbanization,

technification and environmental crisis at the confluence of maladjustment in adolescents, which is on the rise with societal trends of narcissistic entitlement (Shaw & Bonnet, 2016). Gabrielsen and Harper offer a three-stage approach to relieve the harmful effects of technification and urbanization in adolescents: changing beliefs, education, and planning. They propose several antidotes with practical examples that are reflected upon in the Summary and Recommendations section of this Capstone. The authors created a theoretical clinical model for wilderness therapy that is based on elements they discerned as central features common to most wilderness therapy programs: wilderness, the physical self, and the psychosocial self. Gabrielsen and Harper define wilderness as “the more-than-human environment in which the therapist and client relationship is established, and the milieu where therapy occurs” (p. 415). The physical self is generally easiest to measure empirically, such as in observable activities. The necessity of a more rigorous lifestyle accompanying wilderness living presents physical challenges with health benefits, but also assists in developing a sense of agency. The psychosocial self element of Gabrielsen and Harper’s wilderness therapy clinical model extols that their small group formations teach interdependence as well as self-reliance.

Notwithstanding copious amounts of personal anecdotal evidence from generations of cultures inhabiting wilderness areas as evidence of the genuineness of the spiritual, psychological and health benefits of living in nature, there is scientific qualitative and quantitative research to support the philosophical tenets of contemporary ecotherapy. Elements provided by wilderness including naturally occurring challenges and consequences, boundless time and space for reflection, abundance of natural metaphors, connection to place, and use of experiential learning methods. The authors contend that these elements could be utilized by society on larger scales. Qualitative data compiled by Warber et al. (2015) in a youth wilderness campout provides correlated findings demonstrating the emotional, cognitive, physiological and behavioural

changes associated with stress reduction, relaxation, more positive affect and less negative affect with nature immersion.

Mindfulness Adaptation

Christine Wamsler's article, "Mind the Gap: The Role of Mindfulness in Adapting to Increasing Risk and Climate Change," (2017) also supports the prospect of developing social practices that encourage cultural shifts toward sustainability. Wamsler relates mindful climate adaptation to inner transformation and emotional well-being, noting that climate change "is creating increasingly complex sustainability challenges that require new pathways and innovation" (p. 1121). Wamsler (2017) identified several conceptual domains of adaptation: private adaptation, public-private adaptation and governance, adaptation policy integration and mainstreaming, and adaptation science. Private adaptation includes physical and psychological well-being; public-private adaptation and governance involves improving communication and support around mindfulness and climate change. Wamsler examined the mindfulness-adaptation nexus in fields of individual well-being, disaster management, organizational management, social justice, environmental behaviour, and knowledge production and found that mindful climate adaptation is a viable option for increasing adaptation ability on scales of cognitive, structural, managerial, epistemological and ontological change processes. Research continues to grow around mindfulness, however, research about mindfulness with climate adaptation remains fragmented and scarce.

Mindfulness is a major facet of most ecotherapy practices, and a mainstream method and practice in psychotherapy. Not enough empirical research exists around the emergent field of mindful climate adaptation to support the validity of new unique approaches. However, Wamsler's (2017) findings suggest that mindfulness has potential to support a cultural-societal shift towards sustainability, since it is consistent with viewing the psyche and planet as

interlinked. Following this view, our cultural perspective, attitudes and actions towards the planet would fundamentally change. We would go from viewing the planet as a rock in space, containing all the organisms and resources for humankind to thrive and use for their own personal gratification, as exhibited in capitalist societies, to living by the philosophy that all life forms are equal and interdependent.

Incorporation of Mainstream Psychotherapy Methods

We understand that ecotherapy is a vaguely defined term intersecting therapy and nature, and that it is therapeutically and ecologically beneficial, and illimitable. Other more typical, structured and researched psychotherapy models can be incorporated into the realm of ecotherapy by using them in natural settings, thus furthering treatment options. Given the considerable evidence base endorsing mainstream psychotherapy models, there is no glaring or even nearly apparent reason that combining other proven therapy models into the paradigm of ecotherapy would be inadvisable. It seems obvious that – given no contraindications – melding therapies would be entirely favourable to the therapeutic process. The extent of ecotherapy, informally used, is immeasurable as it is used naturally all the time in non-clinical settings without trial or observation. The following paragraph discusses concrete examples and research findings of mainstream psychotherapy models being used in nature.

Cognitive behavioural therapy (CBT), when conducted with exposure to a forest environment, has been shown to alleviate depression significantly more than in control and hospital-setting groups (Kamitsis & Simmonds, 2017). Similarly, components of dialectical behavioural therapy (DBT), emotion focused therapy (EFT), and solution focused therapy (SFT) may be linguistically incorporated into any ecotherapy counsellor's toolkit. There is nothing about ecotherapy that dictates away other models: ecotherapy simply incorporates the benefits of nature into counselling practice. Mindfulness and meditation, as well as movement, sensory,

physical and somatic therapy can be combined with various modes of nature exposure, whether that be full immersion into wilderness, or simply incorporating nature into the office. Animal-assisted therapy can be another ecotherapeutic intervention that improves psychological health and well-being with several DSM mental health diagnoses (Kamitsis & Simmons, 2017).

Ecotherapy in Urban Settings

In their book, “Ecotherapy: Healing with Nature in Mind”, editors Linda Buzzell and Craig Chalquist promise:

Work that reconnects us to nature and place does not make the therapy office or consulting room obsolete. Earth-based therapy inside the session can initiate human-nature dialogue, with consequences that extend far outward into a world solely in need of healing. But the healing cannot begin until we shake off denial and numbness and face the ongoing destruction of the ecosphere and its effects (p. 83).

Buzzell and Chalquist say that nature-guided therapy creates positive contexts that facilitate healthy interpersonal relations whether outdoors with green space, in the wilderness, or in the office or consulting room (2009). Ecotherapy can be practiced in natural settings or incorporated into office settings, which is important since access to wilderness can dictate our ability to use ecotherapy in a natural setting.

Although outdoors might seem the ideal setting for ecotherapy because it encompasses and exudes the essence of our livelihood, significant evidence suggests that ecotherapy is successfully commingled into indoor and traditional counselling settings. In the *International Journal for the Advancement of Counselling*, Greenleaf et al. (2014) and Kamitsis and Simmons (2017) advocate that ecotherapy can be established indoors in traditional counselling settings and give evidence to support that incorporation of nature resources in traditional office settings yields improved client response to therapy and well-being. Kamitsis and Simmons write of their thirty-

participant qualitative study that analysed data of practices commonly used in conventional counselling settings indoors, whereas Greenleaf et al. used a conglomerate of data to give evidence of how ecotherapy can benefit professional counselling practice. Kamitsis and Simmonds found that common ecotherapy applications involved nature-based guided meditation/mindfulness, nature-based homework exercises, and use of nature metaphors.

Journals can be brought into session for reflection on personal experience of time spent in nature. Behaviour-tracking charts indicating time spent outdoors can be helpful in manifesting awareness of time spent outdoors; imagery, guided meditation, sensory exposure, mindfulness and somatic methods; use of nature-based narratives, storytelling, and use of metaphor; photographs or art using or representing natural objects; views of nature from the counselling location or background; reflection and interpretation of homework activities and nature experiences. George Burns' *sensate focusing* has been shown to improve clients' interpersonal relationships as well as intrapersonal symptoms of depression. It involves identifying natural elements the client finds sensually soothing or appealing, and exploring how they might further incorporate those aspects into their lives and well-being (Kamitsis & Simmonds, 2017).

Grief and Loss-Related Trends: Aging, Global Health and Climate Crisis

Health care model trends in North America have historically favoured tertiary prevention care, which treat health complications from already existing diseases instead of preventing the initial health concerns before they become problematic (Walker et al., 2018). A reliance on tertiary care is signified by the availability and encouragement of services that respond to illness and disease already present, as opposed to prevention. Canada primarily had privately funded health care until after World War II when Saskatchewan started a province-wide universal health care plan for guaranteed basic services, followed by British Columbia, Alberta, and eventually, the rest of the provinces and territories (Government of Canada, 2019, September 17). These

systems model and implicitly encourage continued dependence on medical services from government and insurance organizations and create reliance on financial assistance that strains social systems, instead of focusing on root causes. Conversely, ecotherapy approaches consider environmental factors that affect people physically, psychologically, spiritually, emotionally because they are all meaningfully intertwined. If the philosophy of ecopsychology was engrained in our systems, preventative measures, such as maintaining good air and water quality, would be taken prior to allowing environmental problems to culminate into health problems.

The need for prevention of disease is particularly obvious in Ogden & Gachon's (2019) article, "Climate Change and Infectious Diseases: What can we Expect?" They purport that global warming in combination with an aging population that is more prone to chronic disease will compound to create greater overall sensitivity to infectious disease. Currently, elderly and those with compromised immune systems are more likely to become casualty of COVID-19, which is on the rise. Ogden and Gachon, among other scientists involved with the IPCC Report (2019), warn about the spread of other infectious diseases, some of which are not directly communicable but are spread through mediums of water, wildlife and insects. Precipitation is expected to increase as the globe warms, including ocean, land, air and atmosphere, predictably compounding the current trend of infectious disease (IPCC, 2019; Ogden & Gachon, 2019).

The current global condition urges adaptation to more sustainable choices that favour prevention, just as in our treatment of citizens who need access to preventative care. Polls in North America show that category groups of young people under thirty years and males are less likely to follow COVID-19 rules such as washing hands and wearing a mask, while equally aware of their chances of contracting it (<https://globalnews.ca/news/7329652/montreal-study-young-people-COVID-19-rules/>). Young people were reported least likely to use precautions, and to be least worried about potential life-threatening consequences. These trends could suggest that,

like the (1987) R.E.M. song, “It’s the End of the World as We Know It (And I Feel Fine)”, that many people would rather continue with their current lifestyles and face dire consequences than manage the discomfort or inconvenience incurred with following guidelines. Of course, this information does not reveal underlying beliefs and values of individual citizens, who may or may not believe that the COVID-19 pandemic is a real biological threat.

In their May 2020 article on the consequences of the COVID-19 crisis on climate change and the propensity of fiscal recovery packages to either entrench or partially displace our presently fossil-fuel reliant economic system, Hepburn et al. identify recommendations with high climate impact and economic multiplier potential: investment in education and training, clean physical infrastructure, natural capital investment, building efficiency retrofits, and clean research and development. These recommendations are supported by many other scientists as can be viewed in Intergovernmental Panel on Climate Change (IPCC) recommendations, which would further serve to be contextualised through more recent environmental impacts, such as summer to fall 2020 seeing mass wildfires and increased air pollution from smoke. Global trends including climate temperature increase combined with increasing world population and aging population indicate that experiences of grief and loss will become more prevalent in future.

Paralleling challenges in climate change and the current COVID-19 pandemic, Jin (2020), Senior Editor for American Chemical Society Energy Letters, promotes renewable energy research:

We are all in this together. A pandemic and climate change are both existential challenges facing the whole human race who share this planet together. Neither coronavirus nor climate see country borders. We have learned that it is not the question of if, but the question of when and how severely people throughout the world will be affected... (p. 1709)

In addition to “We are all in this together”, a popular COVID-19 slogan, Jin (2020) elucidates other important principles – of survival, if nothing more – that echo elements of ecotherapy and nature wellness approaches:

(1) We must act now before it is too late; (3) science and facts matter; (4) innovation is key; (5) international collaboration is critical; (6) we must respect mother nature and learn to peacefully coexist with her. (p. 1710)

Jin (2020) elaborates on the similarities of the climate crisis and global pandemic, reiterating that solutions require immediate and collaborative worldwide response. More research for producing alternate forms of renewable energy to fossil fuels, and sources and investment in more efficient energy storage solutions are needed. As a global society, it is imperative that we to produce more efficient and renewable energy sources.

Ethical Considerations

Ecotherapists need to be more progressive with informed consent and confidentiality in outdoor or public settings (Buzzell & Chalquist, 2009; Reese, 2016). Many different locations and environments could be accessed, where there might be little or no control over who or what comes up. Adequate training, licensure, certification and insurance are often required due to the many environments, people and animals encountered. Grief and loss are sensitive topics that can make clients become and feel more vulnerable, so extra care and consideration needs to be communicated with respect to extraneous and individual circumstances as well.

Bioethical practice, or ethics in relation to living organisms, as a counsellor infers that the principles of ethical practice apply equally to the entire biosphere. However, not all people have equal access to the resources needed for making sustainable choices, knowledge being included as one of those resources. Assuming all of Earth’s inhabitants have equal access to resources would portray equal responsibility in eco-friendly initiatives when disparity in ability to

participate exists. Counsellors need to be cognizant of their privilege and remain attentive to how their own perceptual lenses and frames of reference might influence their work. Accessibility concerns everybody and continues to need to be addressed throughout societies around the globe.

We need to be respectful of the people, cultures, lands and organisms that we seek to learn of. Following cultural customs, like trading a gift for sharing of wisdom, and acts of respect, like getting permission before accessing areas, are critical to ethical practice. Integrating beliefs or values contrary to one's own could present an ethical dilemma. Another potential ethical problem is of who gets to choose who decides the right course of action. Multiple codes of ethics exist; they are not universal. Perhaps North America as a society could adopt and follow the ethical principles outlined in the Canadian Counselling and Psychotherapy Association's (CCPA's) Code of Ethics as a general ethics code. From an ecotherapeutic perspective, all biosphere organisms would then be incumbents of ethical consideration. Attaining such a wealth and abundance of knowledge about certain cultures, species or areas prior to having embarked on the learning journey could be an insurmountable task.

Challenges and Limitations

Davis and Atkins (2009) point out a limitation of ecotherapy having no actual pedagogy or framework. This could at least in part be due to the basic philosophy of ecotherapy "embodying the split in thinking that has plagued Western thought since the enlightenment: perceived dichotomies of subject and object, person and place, mind and nature," (Jordan et al., 2010, p. 2). Challenges of ecotherapy can be generalized as systemic and engrained in many people's ways of believing in or going about life, such as the anthropomorphic worldview or ubiquitous consumption of single-use items. As many people know, change requires more effort than continuing a behaviour, even if change is preferable in the long-term or overall.

Accessibility to outdoor areas plays a key role in determining what forms of therapy might be available to individuals, but ecotherapy is also incorporated into indoor settings like offices (Kamitsis & Simmonds, 2017). There are challenges in incorporating ecotherapy into urban centers not only due to spatial constraints but also financial resources, and economic and political interests. Not only is accessibility limited to clients, though, training options for therapists are fairly inaccessible as well since they are often far away, expensive, and have limited spots available, or run only so often. Furthermore, ecotherapists need to consider the bioethics of the training, for instance, carbon footprint and encroachment on other beings, as well as for when they plan to take out clients. Gaps in research were noted with respect to incorporation of other therapies within nature contexts, outcomes of other therapies when incorporated into nature settings, outdoor and wilderness excursions, and in comparing pseudo-exposure methods like nature imagery with actual nature exposure or wilderness immersion. A bioethically sensitive way of utilizing natural space and natural specimens is yet to be determined with respect to objectification of nature.

Conclusion

Ecotherapy is based on holistic and indigenous beliefs that promote balance and interconnected reciprocity with the natural world (Davis & Atkins, 2009; Buzzell & Chalquist, 2009). Ecotherapy, a broad, non-clinically defined term for an overarching praxis between ecology and psychology is focused on healing through activities that reconnect humans to their natural world, planet Earth (Davis & Atkins, 2009). Research indicates that humans' connection to nature can promote mental and emotional well-being and benefit interrelationships (Greenleaf et al., 2014; Kavalski & Zolkos, 2016; Koger & Scott, 2016; Wamsler, 2018). Greater connection to nature is facilitated by exposure to nature (Reese, 2016). The health of planetary ecosystems, encompassing the integrality of all Earth's organisms and their ecos, disintegrates as human

population, environmental destruction and commodity production perpetuate, as does our capacity for nature-connection (Koger & Scott, 2016).

Ecotherapy helps mitigate the loss and grief effects of climate and environmental crisis by improving connectedness with nature, cognitive restoration, feelings of improved physical and spiritual well-being and less symptoms of stress and mental illness (Cunsolo & Ellis, 2018; Wamsler, 2018). Narcissism, self-obsessed cosmetic and material procurement and entitlement are emergent human traits of modern societies, which are considered in response to environmental crisis, urbanization and technification, and which lead to continual environmental degradation (Gabrielsen & Harper, 2018; Shaw & Bonnet, 2016). Language framing to do with nature is indicative of relationship dynamics, such as in the human-nature relationship alike human interrelationships (Antal & Drews, 2015; Hathaway, 2017). Without connection to nature, we lose connection to sense of place, values and identity (Wamsler, 2017).

Urbanized, technified societies display higher rates of mental illness and it has been documented that lack of connection to nature and lack of access to nature are correlates of mental illness, and conversely, that connection to the natural world and spending time in nature promotes cognitive and physical well-being (Gabrielsen & Harper, 2018). More research is needed to assess in what ways the values of ecotherapy can be accessed by the general public, and cultivated in order to improve the future of all living organisms on the planet. However, with the world's vast, growing human population – in which the Anthropocene poses assured climate and human population increases resulting in ecological loss – ecotherapy provides a viable construct for alleviating symptoms and aiding reconciliation of the impacts environmental destruction.

Chapter Three: Summary, Recommendations, and Conclusion

Summary

Evidence shows that ecological loss is a tangible reality that will continue (Cunsolo & Ellis, 2018; Shaw & Bonnet; 2016). Losses of environment, land, way of life, culture, identity, space, sound (or silence), and freedoms are imminent. Disconnection from natural ecosystems, self, and other, are contributing to disturbance of human mind, body and spirit and will continue to contribute to suffering without transcendence (Buzzell & Chalquist, 2009; Greenleaf et al., 2014; Hathaway, 2017; Sackett, 2010). “Dis-ease” (Gabrielsen & Harper, 2018) is becoming more rampant as technification and urbanization besmeared societies, and narcissistic self-entitlement and self-obsession flourish (Shaw & Bonnet; 2016). These terms reflect the internal, mental and emotional states of those society members affected by anxiety, grief, numbness, anger and depression. Literature suggests that ecotherapy could mitigate the deleterious effects of ecological loss and grief by facilitating human connection to nature and rebuilding healthier human-human and human-nature relationships (Antal & Drews, 2015; Cunsolo & Ellis, 2018; Kavalski & Zolkos, 2016; Reese, 2016). To illustrate a infinitesimal yet deeply felt example of the effects of climate change and environmental loss on an individual level, the final segment of this Capstone contains a personal anecdote of the author’s recent experience of personal loss with her home ecos that she attributes to the effects of global warming and climate crisis. When we care for our planet, we care for each other.

Recommendations

Cohesive Committal: We Are All in This Together

Grief and loss related to the global COVID-19 pandemic and climate crisis can be addressed using an ecotherapy approach, which involves coming to terms with the reality we all face. As part of the overarching global ecosystem or biosphere, we are dependent on other

organisms to survive and inseparable from our natural environment on Earth. Solutions for both pandemic and climate crisis can be summarized as follows: realize the severity of the problem; act now; understand facts of science are relevant; innovate; collaborate internationally; respect and learn to live symbiotically with nature (Jin, 2020). Acting now is particularly critical for Canada, where warming is happening faster than most other parts of the world (Government of Canada website, 2019).

Consumers and corporations are opting for more environmentally sustainable methods and reducing negative environmental impacts: an example of this is “b corporation” businesses that have entered a legal obligation to consider environmental impacts against profit margins. Eco-friendly practices can help relieve anxiety and guilt associated with human-caused environmental destruction by providing people with a sense of self-agency, reducing feelings of helplessness, and creating opportunities for interpersonal cooperation and cohesion and symbiotic relationships with planet Earth and all its inhabitants (Greenleaf et al., 2014; Reese, 2016). Collaborative individual action can take the form of sticking to trails when hiking, hanging clothes to dry, and choosing shade over sunscreen.

Promote Greener Values

Recommendations for creating space for ecotherapy to flourish include: more green spaces, short breaks in nature, involving nature in daily life, and increasing access to green spaces so nature can be experienced more frequently; use of nature to house mindfulness and self-reflection to expand the psyche and stimulate neural circuitry might be beneficial to persons affected by ecological grief; free educational programs and activities that teach and encourage more ecologically conscious practices and connection to the outdoors; incorporation of appropriate landscape architecture; more public education on recycling; living greener, conserving nature and providing incentives for reduced carbon emissions such as free or

subsidized transitioning to green technologies for businesses and individuals. Changing beliefs entails the internalization of “green” values throughout society, specifically through increased awareness to change and the implicit health benefits of greener living. Gabrielsen and Harper (2018) appropriate a three-stage approach to reverse or, at minimum, moderate the “resultant pathology” of technification and urbanization through changing beliefs, education, and planning (p. 409). The authors point out an obstacle of changing to greener measures is the relationship between economics and environmentalism and underscores that politics as having a fundamental role in options: “We need to reach a point where public opinion and key players in society believe these to be a viable way forward,” (p. 416). With relation to promoting greener values and how policy makers can help, for example, funds from carbon tax initiatives can be used for furthering green initiatives, including education.

Policy Maker’s Roles

Limiting activities that are environmentally harmful and finding greener ways of participating with ecosystems will help us become more sustainable as a species. Adding incentives, such as tax deductions for green technology and high occupancy vehicle (HOV) lanes, and deterrents, such as tariffs on personal vehicle drivers in certain areas, can encourage citizens and tourists to partake in more ecologically responsible behaviours. Elected and appointed political leaders are key in decision-making, and depending on the representativeness of government, will promote greener values. It is not enough to simply inveigh current practices: individual and political action is required to make an impact. Possible sustainability options in North America with the continually declining costs of solar and wind energies offer a natural and more affordable alternative to nuclear energy and fossil fuels that duly have a potential to offer millions of new jobs has been identified more recently in the political sphere (Gore, 2020).

Researchers Hepburn et al. (2020) identify recommendations with high climate impact and economic multiplier potential: investment in education and training, clean physical infrastructure, natural capital investment, building efficiency retrofits, and clean research and development. Voting for candidates who will convert economies towards ecofriendly communities that rely on geothermal, solar, wind and marine energy sources to provide power without burning fossil fuels is a start to a more responsible society. Resource Park in Iceland, for instance, celebrates a community without waste in a nation leading in sustainable living, and provides a remarkable example of how different our world might look if we made political change.

Education and Research

More research is needed into what the exact benefits of different forms of ecotherapy are, how benefits are inculcated, and how connection to nature is reinforced. Research exists but it is scant in comparison to the enormity of the human-nature problem and that survival is at stake. Government, community, and organizational policies that support citizens in being environmentally sensitive and economies that are circularly designed to give back to living systems need to be given serious consideration. Greener choices need to be known, accessible, and affordable. Distribution of knowledge in addition to distribution of wealth leads to empowerment and sustainable economies (Raworth, 2018). Utilization of nature and natural resources in online counselling sessions might have been more prominent during the COVID-19 pandemic and quarantine, providing an opportunity to researchers to gather new information and apply altered techniques.

Disseminating knowledge of antidote measures to environmental destruction on all levels and in multifarious fields of study will lead to more public education and connection to nature, for example, through teaching reconsideration of nature's agency through human-plant studies.

Making elements of ecotherapy mainstream and adapted into everyday use in general settings such as schools and institutions by integrating psychoeducation into outdoor living, experiential learning methods, opportunities for naturally arising challenges and consequences, nature breaks, time for reflection, generation of creative nature-based metaphors, mindfulness, and connection to place are recommended. Brainstorming options for utilizing space for ecotherapy by osmosis in urban centres, especially with lack of access to centers dedicated for public access to green space, green belts or parks is an opportunity for us to work together to make the world a better place.

Facilitate Space for Change

Greater connection to nature is facilitated by exposure to nature, which can be provided and represented using landscape architecture that accounts for human suffering related to ecological loss and grief (Bakshi, 2018). We need to create space for change in all societal realms: public forums, for example, can provide places for nature moratoriums (Bakshi, 2018). We can incorporate nature into urbanized areas by landscaping green spaces and interlace natural elements into city structures: creating green walls of plants on buildings instead of stark concrete faces, and by creating green spaces on rooftops and mezzanines are examples. Floraesthesia (Ryan, 2009) and wild, unfettered growth can appreciate our fundamental understanding of nature.

Conclusion

Ecotherapy comes from the holistic perspective that emphasizes interconnectedness of all things, that healing takes place in the context of the human-nature relationship, and coincidentally, that nature is inherently healing (Sackett, 2010). The more connected people are to nature, the happier they are (Reese, 2016), as nature helps people open themselves up to environmental signals and provides space for restoration and reflection (Antal & Drews, 2015). Nature-based

therapy provides a pathway to improved human interrelations through resolving cognitive dissonance associated with thwarted emotions that occur from ecological loss and corresponding grief responses.

Ecotherapy is wholly benevolent in its intent because it exudes well-being for the Earth and all its species. It is a precept for the preservation of humankind, yet it is still limited in its palatability and availability and stunted in its salience. A shift in perspective of the way humans view their connection with the rest of the biosphere is needed before we can create the change required to obtain planetary stability. In all aspects, including those regarding health care and concerning planet health, we need to move toward prevention of harm with measures that allow nature to thrive. With consumerism and environmentally destructive practices prioritized above plants and wildlife our biosphere will continue to diminish. Fostering connection to nature, silence, solitude, physical awareness, and opportunity for natural challenge and benefit are some of the beneficial elements of ecotherapy. This need not happen in the wilderness: nature resources can be incorporated into indoor, traditional counselling settings. Just as ecotherapy can be incorporated into a counselling session, so should it be incorporated into classroom settings.

Transformative learning, including discomfort of change within ecotherapy, is part of the work in nature-based, holistic counselling approaches necessary for transcendence of our human condition. A paradigmatic shift in perspective wherein we as people begin to view ourselves as intricately and inseparably involved in a vital and reciprocal relationship with other organisms and elements of nature is essential. It is not whether ecotherapy can indefinitely save our species: even the sun's glow is impermanent. Ecotherapy can, however, serve as a mitigator for the effects of grief that accompany ecological loss. Ecotherapy can even help ease tenuous human relations. Ecotherapy is uniquely suited to gently awakening us to the environmental crisis before it is too late, identifying and guiding us to process the resultant grief and loss feelings we have, helping us

see that we have choice in how we progress, and helping move us into action that is ecologically proactive.

Chapter Four: Closing

Reflection

My sentiments about how ecotherapy ought to be used is really in no certain way at all – there can't be a structured framework for something as divine of presence than nature itself.

Working within the worldly realm of counselling, in which every single person is unique, even “identical” twins, so will be each client's abilities, beliefs, interests, strengths and so on. Any way of connecting to nature, whether it is out in the bush or going to a place of natural solace in your mind, has a propensity to have some of the same beneficial physiological, emotional, and psychological effects as being in wilderness. I have always felt a loving, profound attachment to nature and enjoyed immersion in back woods and wilderness areas – and in any aspects of foliage and garden life I can find anywhere. As a kid and as an adult, I have always been intrigued and in awe and adoration of animals and natural growth.

I personally relate to the topic of ecological loss and grief because I've recently experienced it, and that's how I decided to write my Capstone on it. When I came to the Lower Mainland / Vancouver area, I was floored by the amount of “development” that had occurred since I had briefly lived in the area five years earlier. I arrived feeling restless and sickened, and I couldn't put my finger on what it was. My sleep was terrible, my attention span terrible, and I felt so much frustration, confusion and resentment. I would spend inordinate amounts of time contemplating which options are less depleting to the environment, such as cooking dinner for one or going out to eat at a somewhere the grill was already hot. During the process of putting this document together, I wondered about another synonymous, alternate word for sustainability. Upon looking it up, I found it striking- yet completely comprehensible – that there is no synonymous word for “sustainable” in the English language.

Personal Anecdote: “The Ice Cave”

Last April (2018), I went to visit my family in Haines Junction as I often have, but the reason for this visit was for more than reconnection. This visit was to get me out of my apartment that I had been hobbling around on crutches the last three weeks, avoiding the outdoor late spring sheet of ice in the parking lot and nursing my injured knee. My family thought that it would suit me well to get out of that house, and the weather was mild, clear, and sunny. Spring was here, and so were the last few days of sledding. So, we piled on the sleds and in the sleigh behind one, I sat tucked between my siblings, crutches jutting out from the side. We went up into the mountains spent the day sledding and sliding the mountain slopes, sitting, chatting, snacking, and staring at the natural wonders around us. When I lay down on the deep sheaths of snow, looking up the concave walls and ceiling of the ancient ice structure, it loomed over me dense and opaque in long parallel ridges of cool blue streaks that gave the appearance of staring up into the swells of the sea.

My cousin got his drone stuck in one of the shelves in the wall of the ice cave that protruded from its floor like crystals. We tried and tried, but we couldn't reach it, or break through the ice. Later that evening, they went back up the mountainside and shot the drone out of the wall miraculously unscathed. That following year in 2019, the ice cave collapsed. It stood there for as long as humankind, but for never again. The same formation that stood as long as any person in my family knew and longer and had wintered countless winters and just as many summers could take a few rounds of bullets with a high-caliber rifle, but not the gradual rise in temperature. The Ice Cave was a structural embodiment of many memories of care, joy, love, challenge, resilience, achievement, and bonding that will for ever be missed.

References

- de Klerk, B. J. (2014). Enhancing ecological consciousness through liturgical acts of doxology and lament. *Verbum et Ecclesia*, 35(2), 1-8.
http://www.scielo.org.za/scielo.php?script=sci_arttext&pid=S2074-77052014000200004&lng=en&tlng=en
- American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
- Alexander, B. K. (2008). *The globalization of addiction: A study in poverty of the spirit*. Oxford University Press.
- Antal, M., & Drews, S. (2015). Nature as relationship partner: An old frame revisited. *Environmental Education Research*, 21(7), 1056-1078. Retrieved from <http://dx.doi.org/10.1080/13504622.2014.971715>
- Aswad, N. G. (2019). Portrayals of endangered species in advertising: Exercising intertextuality to question the anthropocentric lens. *Environmental Communication*, 13(1), 118-134.
[doi:10.1080/17524032.2018.1427609](https://doi.org/10.1080/17524032.2018.1427609)
- Bakshi, A. (2017). Responding to emotional aspects of environmental loss: Implications for landscape architecture theory and practice. Rutgers University, Department of Landscape Architecture.
- Briere, J. N., & Scott, C. (2015). *Principles of trauma therapy: A guide to symptoms, evaluation, and treatment* (2nd ed.). University of Southern California: SAGE.
- Buzzell, L., & Chalquist, C. (Eds.). (2009). *Ecotherapy: Healing with nature in mind*.
- Cary institute of ecosystem studies. (n.d.). *Definition of ecology*.
<https://www.caryinstitute.org/news-insights/definition-ecology>

- Cunsolo, A., & Ellis, N. R. (2018). Ecological grief as a mental health response to climate change related loss. *Nature Climate Change*, 8(4), pp. 275-281. doi:10.1038/s41558-018-0092-2
- Davis, K. M., & Atkins, S. S. (2009). Ecotherapy: Tribalism in the mountains and forest. *Journal of Creativity in Mental Health*, 4, pp. 273-282. doi:10.1080/15401380903192747
- Gabrielsen, L. E., & Harper, N. J. (2018). The role of wilderness therapy for adolescents in the face of global trends of urbanization and technification. *International Journal of Adolescents and Youth*, 23(4), pp. 409-421. Retrieved from <https://doi.org/10.1080/02673843.2017.1406379>
- Global News. (2020, September 11). Montreal study indicates young people less likely to follow COVID-19 rules. <https://globalnews.ca/news/7329652/montreal-study-young-people-covid-19-rules/>
- Gore, A. (TED Talks). (2020, June 25). The new urgency of climate change [Audio podcast]. https://www.ted.com/talks/al_gore_the_new_urgency_of_climate_change/up-next
- Government of Canada. (2019, September 17). *Canada's health care system*. <https://www.canada.ca/en/health-canada/services/health-care-system/reports-publications/health-care-system/canada.html#a12>
- Government of Canada. (2019). What to expect with climate change? <https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2019-45/issue-4-april-4-2019/article-1-climate-change-infectious-diseases.html>
- 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. doi:10.1007/s10447-013-9198-4

- Greenway, R. (2009). The wilderness experience as therapy: We've been here before. In L. Buzzell, & C. Chalquist (Eds.). *Ecotherapy: Healing with Nature in mind* (pp. 132-139). <https://ebookcentral.proquest.com>
- Harris, D. L., & Winokeur, H. R. (2016). *Principles and practices of grief counseling*. New York, NY: Springer Publishing Company.
- Hathaway, M. D. (2017). Activating hope in the midst of crisis: Emotions, transformative learning, and “the work that reconnects. *Journal of Transformative Education*, 15(4), 296-314. Retrieved from <https://doi.org.10.1177.1541344616680350>
- Hepburn, C., O’Callaghan, B., Stern, N., Stiglitz, J., and Zenghelis, D. (2020), ‘Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change?’, Smith School Working Paper 20-02.
- Hibbard, W. (2003). Ecopsychology: A review. *The Trumpeter*, 19(2), 1-36. http://www.trumpeter.athabascau.ca/content/v19,2/04_Hibbard.pdf
- Intergovernmental Panel on Climate Change. (2019). Retrieved from <https://www.ipcc.ch/sr15/>
- Jin, S. (2020). COVID-19, climate change, and renewable energy research: We are all in this together, and the time to act is now. *ACS Energy Letters*, 5(5), 1709–1711. <https://doi.org/10.1021/acsenerylett.0c00910>
- Jordan, M., Stevens, P., & Milton, M. (2010). Ecopsychology: Past, present & future. *European Journal of Ecopsychology*, 1, 1-3.
- Kamitsis, I., & Simmonds, J. G. (2017). Using resources of nature in the counselling room: Qualitative research into ecotherapy practice. *International Journal for the Advancement of Counselling*, 39(3), 229-248. doi:<http://dx.doi.org.proxy.cityu.edu/10.1007/s10447-017-9294-y>

Kavalski, E., & Zolkos, M. (2016). The recognition of Nature in international relations.

Recognition and Global Politics. Retrieved from

<https://doi.org/10.7765/9781526101037.00014>. Manchester Openhive: Published Online 01 Sep 2016.

Koger, S. M., & Scott, B. A. (2016). Teaching Psychology for Sustainability: The Why and How. *Psychology Learning & Teaching*, 15(3), 214–

225. <https://doi.org/10.1177/1475725716648238>

Kopnina, H. (2013). Requiem for the weeds: Reflections in Amsterdam city park. *Sustainable Cities and Society*, 9, 10-14.

Macy, J. (1995). Working through environmental despair. In T. Roszak, M. E. Gomes, & A. D. Kanner (Eds.), *Ecopsychology: Restoring the Earth, healing the mind* (pp. 240-259). San Francisco, CA: Sierra Club Books.

Merriam-Webster. (n.d.). *Definition of environment*. <https://www.merriam-webster.com/dictionary/environment?src=search-dict-box>

Neimeyer, R. A., Harris, D. L., Winokuer, H. R., & Thornton, G. F. (Eds.). (2011). *Grief and bereavement in contemporary society*. New York, NY: Routledge.

Ogden, N. H. & Gachon, P. (2019). Climate change and infectious diseases: What can we expect? *Canadian Communicable Disease Report*, 45(4): 76-80.

Porges, S. W. (TED Talks). (n.d.). Dr. Stephen Porges: What is polyvagal theory [Audio podcast]. <https://www.youtube.com/watch?v=ec3AUMDjtKQ>

Porges, S. W. (2004). Neuroception: A subconscious system for detecting threats and safety. *Zero to Three*, 24(5), 19-24.

R. E. M. “It’s the End of the World as We Know It (And I Feel Fine)”. Document, Scott Litt, Sound Emporium, Nashville, 1987.

- Reese, R. F. (2016). EcoWellness and guiding principles for the ethical integration of Nature into counseling. *International Journal for the Advancement of Counselling*, 38(4), 345-357.
Retrieved from <http://dx.doi.org/10.1007/s10447-016-9276-5>
- Robinson, L. (2009). Psychotherapy as if the world mattered. In L. Buzzell & C. Chalquist (Eds.), *Ecotherapy: Healing with nature in mind* (pp. 24-29).
- Ryan, J. C. (2009). 'Plants that perform for you?' From floral aesthetics to *floraesthesia* in the southwest or western Australia. *Australian Humanities Review*, 47, 101-121.
- Sackett, C. R. (2010). Ecotherapy: A counter to society's unhealthy trend? *Journal of Creativity in Mental Health*, 5, pp. 134-141.
- Shaw, W. S., & Bonnett, A. (2016). Environmental crisis, narcissism and the work of grief.
https://journals-sagepub.com.proxy.cityu.edu/doi/full/10.1177/1474474016638042?utm_source=summon&utm_medium=discovery-provider
- Stewart, A. E. (2018). Mourning Nature: Hope at the heart of ecological grief and loss ed. by Ashlee Cunsolo and Karen Landman (review). *Ethics and the Environment*, 23(1), pp. 79-86. doi:10.2979/ethicsenviro.23.1.06
- Walker, G., Stracciolini, A., Faigenbaum, A., & Myer, G. (2018). Physical inactivity in youth: Can exercise deficit disorder alter the way we view preventative care?. *ACSM's Health and Fitness Journal*, 22, 42-46. doi:10.1249/FIT.0000000000000370.
- Wamsler, C. (2018). Mind the gap: The role of mindfulness in adapting to increasing risk and climate change. *Sustainability Science*, 13(4), 1121-1135.
doi:<http://dx.doi.org.proxy.cityu.edu/10.1007/s11625-017-0524-3>
- Warber, S. L., DeHudy, A. A., Bialko, M. F., Marselle, M. R., & Irvine, K. N. (2015). Addressing "Nature-deficit disorder": A mixed methods pilot study of young adults

attending a wilderness camp. *Evidence - Based Complementary and Alternative Medicine*, 2015 doi:<http://dx.doi.org.proxy.cityu.edu/10.1155/2015/651827>

Well-being. (n.d.) *Dictionary*. www.dictionary.com

White, M.P., Alcock, I., Grellier, J., Benedict, W.W., Hartig, T., Warber, S.L., Bone, A., Depledge, M.H., & Fleming, L.E. (2019). Spending at least 120 minutes a week in Nature is associated with good health and wellbeing. *Sci Reports*, 9, article7730. <https://doi.org/10.1038/s41598-019-44097-3>

Wikipedia contributors. (2020, June 18). Overpopulation. *Wikipedia, The Free Encyclopedia*. Retrieved 18:35, July 8, 2020 from <https://en.wikipedia.org/w/index.php?title=Overpopulation&oldid=963158733>

Windle, P. (1992). The ecology of grief. *Bioscience*, 42(5), 363-366. doi:10.2307/1311783

World Health Organization (2019). International statistical classification of diseases and related health problems (11th ed.). <https://icd.who.int/>