NATURE: THE CURE WE'VE BEEN LOOKING FOR

by

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Abstract

Nature-based therapy is a therapeutic lens that utilizes nature as a co-therapist. This approach addresses the disconnect between land and people, a disconnect that negatively impacts the mental health of many of those seeking mental health services. Consequently, this approach is now considered an effective treatment for youth and is used as a standalone approach or integrated with cognitive behavioural therapy, gestalt, or group therapy. In either case, this nature-based lens provides a bridge between traditional Indigenous practices and Western psychology.

My project highlights various activities and ideas in order to incorporate nature into one's practice as a therapist, specifically within a northern context. Information regarding benefits, ethical concerns and various types of nature-based therapy will be discussed and guide the development of the manual. The guidebook will assist those interested in nature therapy by creating a place where tangible and realistic ideas for how to incorporate it into practice are located.

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Chapter One: Introduction

"In every walk with nature one receives far more than he seeks." John Muir.

Over and over again, we have heard that being outdoors is good for your health and that there are endless benefits to breathing in the fresh air. From Shinrin-yoku (forest bathing) in Japan, to horticulture therapy, to adventure or wilderness therapy, there are various avenues of what has collectively been coined "ecotherapy" or therapy in nature. All of these nature-based therapies invoke what First Nations people have known for thousands of years: "the interconnectedness of all life, which includes human persons and all Creation (animals, plants, rocks, visible and unseen forces of nature, the universe) that coexist in balance, harmony, respect and care" (Radu, 2018, p.1). When you are outside, something indescribable happens: You become part of something bigger, and eventually you may find that your worries fade away a bit, as your connection to the land gets stronger. It is my belief that as this connection to the land gets stronger, your ability to heal and grow increases as well. The more we find ourselves becoming in tune with the land, in whatever way we can, the more capacity we have to heal.

I have spent the last few years living in a Northern British Columbia First Nations community. An area of interest of mine is Canadian Indigenous peoples and land-based healing practices because I have firsthand experienced its power. There are a multitude of ways that colonialism has been destructive and detrimental to Indigenous life, including severing ties to land-based practices and way of living on the land that is used by these Peoples.

There is a very clear model laid out in Radu (2018) that states that there are a few themes one should stay within when creating a land-based healing program: "The culture is the foundation, 2) community development, ownership and capacity building, 3) quality health care

and competent service delivery, 4) collaboration with partners and 5) flexible funding initiatives" (p. 6). Although there are multiple youth and adult programs tied to Indigenous initiatives, research is still lacking around programming in North-Western British Columbia. In addition to this, it has become apparent that there is a gap in the needs of the youth and what is currently being provided to them (in terms of services).

The proposed manual would be a program, or group of activities that would encourage practitioners to incorporate nature into their work in ways that are small and attainable. It is my understanding that there have been a few attempts to put together a framework for nature-based therapy, but none that are based in Northern British Columbia (B.C). I believe that there are no frameworks that really examine and use the resources that are found in the lands in Northern B.C. As well, there are none that work with Indigenous peoples of the area. It is my hope that this manual can be the start of something that can help to fill these gaps.

Significance

It is my belief that as the disconnect between land and people becomes more significant, there is a direct correlation to a decrease in the mental health of humankind. However, in my research, I found that there is a lack of programming for youth-based wilderness programs, particularly with a mental health focus, in the northern areas in Canada. In addition to this seemingly lack of public programming, I was also struck by the limited resources for therapists who would be interested in adopting some form of nature-based therapy in their practice.

Mental illness affects a significant proportion of children and adolescents. According to the Government of Canada (2006), 70% of mental health problems have their onset during childhood or adolescence in Canada. Current treatment strategies are often based on western culture approaches including psychotherapy and pharmacology. However, nature therapy has

recently evolved as an effective alternative treatment option for some youth.

According to Berger (2006), "Nature therapy develops concepts and methods that assist its operation in nature, while addressing ways that the unique characteristics of this independent environment not only can influence the therapeutic act but also can be used by the therapist to open it up to additional dimensions" (p. 7). In this proposal I define wilderness as a place where normal human contact is limited and only the basic human needs are met (e.g., shelter, adequate food, and water). There are various ways that therapy is undertaken in this wilderness setting, depending on location. One thing however remains the same: practitioners that utilize wilderness therapy are strong believers in the healing characteristics of the land, and the counsellor is often a co-instructor with the surrounding nature. "The wilderness exposes and calls upon the strengths of the mind, body, spirit and emotions, thus creating opportunities to begin rebuilding." ("Pine River Institute: Our Program", 2019). As well, the word youth will be used interchangeably with adolescent and teenager. It aims to describe humans between the age of 12-24 years of age but can vary depending on developmental capacities.

In the United States and Canada there are numerous outdoor education and adventure programs that are available to youth. However, these programs are often full to the brim and only exist in the southern areas of Canada. For my research I will consider both Canadian and American sources, as well as First Nations' literature surrounding land-based healing practices. I believe that the land-based healing practices of First Nation's peoples are extremely valuable and often a different approach is taken than from the more traditional approaches. After examining the existing research, I am saddened by the lack of resources for mental health practitioners in northern Canada, especially when it comes to this topic. It is my opinion that this needs to be remedied. Even though health authorities cannot miss the continuing rise of

mental health issues in the youth population, there seems to be no significant structures in place to help create opportunities for therapists to explore outdoor therapeutic options for these youth. On the other hand, perhaps this disconnect is because of the unwillingness or lack of knowledge of practitioners to create outdoor therapy programs or options for their clients. How can we create programming that allows our youth to heal in a way that is truly beneficial for them?

I believe that in order to encourage more therapists to incorporate nature-based practices into their work, we need to make them more accessible. This is what encouraged me to create a manual, full of resources and ideas- one location where practitioners can look for various ideas and perhaps a place to find initial inspiration to take parts or the whole of their practice outside. Originally, I was going to create a program for practitioners to use in its entirety. After careful thought and consultation, I believe that it will be more applicable and useful to create a collection of activities that therapists can use in whichever way they choose (within the ethical guidelines of course), rather than an already put together program that might not necessarily fit every need.

Purpose

I have created a guide for practitioners that focuses on nature as a form of therapeutic treatment. In the future, it is possible to create a shorter, concise handout for practitioners to use, and even potentially an app for just activities. It is important to me that Indigenous peoples will be consulted, particularly to make sure to avoid cultural appropriations. As I am a Caucasian female, I will be careful to minimize this. The manual would be one that is designed for counsellors and other mental health focused practitioners to use.

Background and Personal Location

After living, working and traveling in Asia, New Zealand, and the United States, I found myself in Terrace, British Columbia and committed myself to Northern British Columbia life. I have found a place where the land is woven into so many people's lives, and where I see the effects of saving or destroying the land every day. I am committed to working with marginalized youth in the Indigenous nations surrounding Terrace and want to remain in this community. I am dedicated to these youths in various ways: from mentoring past students, to teaching science at the elementary school level, to running a grief support group on and off reserve and connecting these youths to services (from Elders in their communities to social services in town and near their homes).

I have taken a brief leave from this life to attain my master's in counselling. The training that I am receiving during these two years is invaluable to my growth as a counsellor and as a person. During various courses I have had the ability to discuss with my peers' numerous ways of incorporating nature into therapy and potentially the ability to have a nature therapy program in the future. I have also had the pleasure of taking a course on trauma counselling which I believe is integral to my work and will be taking a child and youth course in the winter 2021. I hope to return to these communities to bring back more knowledge as well as openness to future partnerships that will help youth thrive.

I am a thirty-one-year-old Caucasian female who grew up in a middle to upper class family neighbourhood in Toronto, Ontario. Both my parents are university educated and I grew up feeling financially and emotionally supported. I attended a 95% Caucasian, Catholic high school. Although I travelled through some unsafe areas in Toronto, the actual location I lived in was safe and I never felt threatened near my home.

As a youth I spent every moment I could outside; every summer was either spent at the lake with my family or in a canoe chasing down whitewater rapids on a river with my friends. At the age of 24, shortly after completing my undergraduate degree in biology/chemistry and my teaching degree in Ontario, I began a long journey through the world of outdoor education and wilderness therapy. I spent most of my twenties living below the Canadian poverty line, but fortunately, I did so out of choice. I chose to live for experiences, working more enjoyable but lower paying jobs, knowing that if all else failed I had a safety net to rely on. I worked these extremely low paying jobs happily, knowing that I was connecting marginalized youth to the outdoor world, one where they felt understood and valued as human beings.

Recently I have spent three years living in the northern reserves in the Terrace area. Because of my physical location I have begun to be more involved and submersed in the Gitxsan culture. However, I realize that three years is insignificant in terms of knowing a culture and people that have inhabited this land for thousands of years. I am acutely aware of cultural differences and want to work in partnership with the community and acknowledge what the community itself wants and needs. I am designing this manual for the practitioners that work with this group of people. I was most struck by the Gitxsan people and how strong their culture made them. This made me feel extremely inferior in terms of entering their land and their emotional and physical space. However, the acceptance and affection they showed me, especially from the youth, made me feel welcome and loved. I think that experiencing this culture and view of life made my belief in nature-based therapy even more compelling. Land based healing is beautiful and a huge part of these people's beliefs and has now become a large part of mine as well.

Overview of the Project

I aim to explain why and how a Northwestern Canadian set of activities that is culturally sensitive and partnered with Indigenous people would help give the youth a sense of connection to the land, as well as to encourage healing. There are two main associations that seem to license forest/nature guides (Association of Nature & Forest Therapy and Global Institute of Forest Therapy). However, it does not appear that Canadians wishing to practice nature therapy need to be licensed with either to practice. In addition to this, the project will explain various activities and ideas in order to incorporate nature into one's practice as a therapist. This will include various activities, themes and connections to Northern culture that a counsellor could use in their nature therapy practice. This is the main intent of the manual itself.

Chapter Two: Literature Review

Introduction

Many of us recognize the healing benefits of nature, even if it is completely subconsciously. How many of us have booked vacations to a quiet place (often on the beach or in the woods), or filled our houses with plants and pets? This connection to nature and its healing and restorative benefits is as old as humans. Traditional wisdom from Indigenous communities consistently points to nature as a healer. However:

"nature and its healing benefits is a concept that has come very slowly into the practice of clinical psychology and is only gradually being incorporated into psychotherapeutic practices. Freud's intrapsychic journeying reversed the orientation of therapy from the outward focus of traditional healers to one of inner analysis" (Burns, 2014, p. 14).

Our current human condition, especially in youth, appears to have forgotten that we live in this Earth and not on it (Sundaram, 2014). Science has dubbed our current era *Anthropocene*, the era that is marked by changes to the Earth by humankind (Harper et al., 2019, p. 4). Studies show that the decreased connection of humans with blue and green spaces is influencing the holistic wellbeing of humans. This is known to some researchers as the "original trauma" (Hay, 2005). To add, the lack of meaningful physical activity is causing problems that lead to obesity, cardiovascular and musculoskeletal diseases, strokes and cancers and raises the incidences of chronic age-related diseases as well as shortens our life span (Mensah et al., 2016, p. 152).

Today, lifestyle-related health problems are becoming a greater concern in all developed countries (Lee et al., 2012). More than half of all the people on Earth now reside in urban

settings, and on average, many of the nations have more than 80% of their population living in large cities and towns (Harper et al., 2019, p. 45). Currently, in North America, we spend 90% of our days indoors and another 5% in our cars.

In addition to this, adolescents (teenagers, youth) in the twenty-first century are experiencing higher levels of complicated demands and risks than they have in the past (Hill, 2007). They are often portrayed as "a mess" and people who are experiencing great turmoil and conflict, both between themselves and also with adults in their lives. However, according to Hill (2007), a more realistic view is one that suggests adolescence is a time of transition and change in which there are many emotional, physical and cognitive changes occurring in teenagers. The main task that this age group should be working on is one of identity development. When teenagers are not adequately attaining this identity, this results in confusion (Erikson, 1968). In addition to what is considered "normal" adolescent development, there are often factors such as high divorce rates, high adolescent pregnancy rates, increased mobility of families, lack of supervision and support from adults and high rates of adolescent drug use (Santrock, 1995).

Mental illness affects a significant proportion of children and adolescents.

Approximately four million children and adolescents in the United States suffer from mental illness; however, only one in five receives treatment (National Alliance of Mental Health, 2010). This number unfortunately continues to grow in both the United States as well as in Canada. According to the Government of Canada (2006), 70% of mental health problems have their onset during childhood or adolescence in Canada. "In North America, there has been a massive rise in mental health issues such as depression and anxiety" (Harper et al., 2019, p. 46). According to *Nature-based therapy: A practitioner's guide to working outdoors with children, youth and families* (2019), one in five youth have been diagnosed with mood or behaviour

disorders. There is a wide range of literature, symposiums, and discussions revolving around the magnitude of adolescent mental health problems (Lewis, 2012). However, according to Alexandre et al. (2008), the majority of youth are not receiving proper treatment, or any interventions at all. This might be due to the fact that current treatment strategies are often based on western culture including psychotherapy and pharmacology. Furthermore, Lewis, 2012 states that youth and adolescents are often seen as a difficult population to treat due to increased vulnerability, sensitivity and resistance to interventions.

In conjunction with increased mental health problems, the physical health of our youth is a rising concern. One study states that due to the high levels of obesity among adolescents, an integrated care approach (involving both mental and physical health) is necessary for our youth (Tucker et al., 2016). Youth experiencing obesity are more likely to also experience depression, anxiety, behavioural and social problems and substance abuse (Pasch et al., 2012).

Methods

The following literature review was completed using four different databases:

PsycINFO, ERIC, PubMed and Academic Search Complete. Within each database, depending on the Boolean/Phrases, the terms that were used include: nature therapy or ecotherapy or nature-based therapy AND youth or adolescents or young people or teen or young adults AND effectiveness or efficacy or effective. Relevant articles were identified; as well, reference lists were scanned for additional articles. A list of themes was created, and each article was scanned for pertinent information with regards to each theme. The themes included history, efficacy, Indigenous ties benefits and ethical dilemmas surrounding nature-based therapies. A total of 67 articles were found, and 8 were excluded due to irrelevant information. When scanning the reference lists of these articles, an additional 66 articles were included based on relevance to the

topic. Therefore 125 articles in total were read and included in this literature review.

Beginnings of Nature-Based Therapies

In the past, "everything was connected, dependent and supported by everything else" (Megged, 1998, p. 39). Recently however, people have been drifting further and further away from this once suggested truth. According to Raphael and Martinek (1996), these trends are related to a number of social, ecological and technological processes, including: crowding and social isolation; changes in communication and information; and human, social, and economic epidemics related to depression, substance abuse and violence (cited in Maller et al., 2002, p. 12). Some see these as problems associated with the deficit of an individual, and therefore interventions seek to 'treat' the individual (Pryor et al., 2005).

"Since 'the talking cure' was conceived by Freud (1900s), Perls (1940s) and Beck (1960s), therapy has traditionally been a verbal, cognitive activity, with the relationship between therapist and client at the core, and almost exclusively taking place indoors (Freud, 1973). This psychotherapy is now recognized as a primary way to address various mental health concerns in both adults and youth (Paris, 2013). Therapy usually only ventures outdoors when specific behavioural interventions are required, such as when clients expose themselves to phobias to desensitize fear responses and build coping mechanisms (Antony & Swinson, 2000). With the exception of this type of in vivo behavioural therapy, practitioners are beginning to question why most other forms of therapy are typically confined to four white and sometimes windowless walls (Pearson & Wilson, 2012). "Practitioners who break with convention and take their work outdoors are pioneering a significant shift in paradigm, with non-essential contact outside the therapy room previously frowned upon as a boundary violation" (Zur, 2001 as cited in Cooley et al., 2020, p. 2). In more recent years, most

practitioners look upon their practice as an integrated one, where their psychotherapy has adopted different ideas and practices from other domains (Berger, 2008a). The common factors amongst most forms of psychotherapy include development of a supportive and non-judgmental relationship, the opportunity to express genuine emotions and the installation of hope in the client (Berger, 2008a). One might argue that all of these factors can also be found in nature-based therapies, and therefore should be a recognized and used therapy option.

Mainstream psychology has been historically known to fall in line with anthropocentric and individualistic views of the world. On the other hand, Indigenous and traditional wisdom throughout the world has long since known that nature not only "promotes health but also heals" (Burns, 2014, p. 8). Psychotherapist Erikson is thought to have brought ecotherapy into the mainstream view, by launching nature-guided therapy in the early 20th century (Beringer & Martin, 2003).

In recent years, there has been more research conducted on nature-based therapy and its benefits to humankind when incorporated into the therapeutic process, particularly for adolescents. There is growing recognition that the physical environment can promote mental health and wellbeing. Barton and Pretty (2010) have shown that access to and regular engagement with green space is important for mental health, particularly for improving self-esteem and mood.

Relationship

Harper et al., (2019, p. 8) states that they are encouraging people to not use nature just as a resource, but instead becoming in relationship *with* nature. Nature-based therapy, and in particular adventure therapy, has "recently been promoted as a legitimate form of complementary and alternative medicine in the USA" (Pryor et al., 2005, p. 3). Nature can be a

Freudian therapist, a cognitive therapist or any kind of therapist (Corazon et al., 2012). All human activities, including education, therapy and healing occur within relationships; social ones, as well as ones with nature (Beringer, 2004). These relationships are integral to our lives as human beings.

The relationship that exists between nature and humankind has been studied over and over again, particularly since the "beginning of industrialized times when we began to move away from reading the skies and the wind and started staring at pavement in static, concrete jungles..." (Sundaram, 2014, p. 53). Ecopsychology, although a developing field, is one that represents a social-therapeutic-environmental philosophy that states that connection with nature is imperative for our life on Earth (Berger, 2008a). "The basis of this movement is a belief that our detachment from nature, caused by industrialization and urbanization, is a root cause of psychological distress" (Cooley et al., 2020, p. 1). Approximately 0.01% of our species' history has been spent in modern surroundings. The gap between natural states (that we are still adapted to) and the new modern world is a contributing cause of stress in the modern person (Song et al., 2016). This belief states that what humans do to their outer world, they also do to their inner world, and vice versa (Cooley et al., 2020). Ecopsychologists view the needs of the Earth and people as intertwined and connected. Overall health functioning and quality of life depend on the earth continuing to thrive, and vice versa (Golberger & Waters, 2000).

Some Definitions

Nature therapy and its framework "refers to this knowledge and these theories and creates a new therapeutic practice that can help the individual cope with questions emerging in a new era..." (Berger & Lahad, 2013, p. 41). The word itself "eco-therapy or nature therapy", is not one that full encompasses all that it is meant to. "Therapy in the past has been linked to

other words: psycho (mind/soul) or physio (body)...in this sense the term eco-therapy is misleading because it is not the ecology that is the subject of treatment." (Burns, 2014, p. 19). Although there are many terms, none seem to best sum up the literature than the term "nature-guided therapy". This term seems to encourage gentleness in both the therapist and the client. "It is not authoritative. Just as a guide may know the path and may show the way, the guided has a choice whether to follow that path or not..." (Burns, 2014, p. 20). As Sahlin et al. (2012) explains, there is no distinct definition that is accepted through the field of nature-based therapy. Nature-guided therapy will be used interchangeably with ecotherapy, forest therapy and nature-based therapy in this review.

Wilderness, and in turn, nature, is a difficult word to define due to many different definitions and subjective understandings over time. "Wilderness has etymological roots in early Saxon and Celtic history-loosely meaning wild animal nest/territory and used to denote 'wild' uncultivated lands" (Nash, 1967, as cited in Harper et al., 2018, p. 149). Miles (1990) suggests that "wilderness is both a physical and conceptual place—wilderness is an idea, a state of mind. It is relative rather than an absolute conception or condition" (p. 325). Nature, according to *Wikipedia* is the natural, physical, material world or the universe. It can refer to life in general, and although humans are part of nature, they are often seen as a separate category from other natural events.

Some Basics

Nature-guided therapy is an innovative method "of therapy that takes place experientially in nature and considers nature a partner in the therapeutic process" (Berger & McLeod, 2006, p. 80). It encourages practitioners to look outside the four walls of the office. This space is static, permanent and under control of the therapist. Nature on the other hand, is

completely independent of both the therapist and the client. "It seeks to offer an alternative to the static, constantly controlled environment of therapy" (Barkan, 2002). It reminds us as people to look beyond ourselves and connect with something bigger than us: community, nature and even the stars above. It is quite different than traditional therapy (defined as taking place inside of a clinic or an office). "Nature-based therapy encourages bodily involvement with the outdoor environment as an integrated part of the therapy." (Corazon et al., 2011, p. 162).

According to Sundaram (2014), nature-based therapy explores the connection between nature and our physical, psychological and spiritual well-being. Nature gently pushes us towards the "present moment where senses awaken, where the brain and the mind can relax and where we can reconnect with the wisdom of our bodies" (Brazier, 2009, as cited in Sundaram, 2014, p. 53). It encourages the client and practitioner to construct the space for the encounter together, using natural materials they use in the "here and now."

Nature-guided therapy is a process-based therapy, and closely linked to art and drama therapy, Gestalt, narrative approaches, ecopsychology, transpersonal psychology and adventure therapy (Berger, 2008a; Berger, 2010). Therapy outdoors was also integrated with a range of therapy modalities (e.g., Cognitive Behavioural Therapy (CBT), third wave, psychoanalytical, relational, psychodynamic, and systemic) (Cooley et al., 2020). Gestalt psychology aligns quite nicely with nature-based therapies. "The goal is to complete the whole which cannot be attained without recognizing the whole in its representation: the natural environment" (Goldberger & Waters, 2000, p. 14). Therapists that practice from a Gestalt frame of reference encourage examining looking at the here-and-now instead of analyzing details of the history of the client (Winter & Koger, 2004). This theory also spends a lot of effort to look at various relationship dynamics (in particular between client and therapist) and

helping clients take responsibility for their own actions (Zinker, 1977).

Hesitations

Although there seems to be some reluctance from practitioners surrounding taking a therapeutic practice outside, specialists in ecotherapy believe that "framework can be sorted out between client and therapist and in fact can become part of the therapeutic process itself" (Berger & McLeod, 2006, p.). Berger (2006a) adds to this by stating, "in taking this frame outdoors the structure of the frame itself may need to be reshaped and become more flexible perhaps the frame becomes an open process rather than an ultimate set of rules." It relates to nature "as a live and dynamic therapeutic environment (setting) that takes part in the shaping of the process and the conduct of the work" (Berger & McLeod, 2006). Therapy outdoors requires a strong therapeutic alliance, sound knowledge of the location, consideration of appropriate safety measures, and a high degree of competence on behalf of the therapist, to cope with the unpredictability of being in nature (Berger, 2009b).

Therapists do not necessarily need to take all parts of their practice outdoors. This might not align with particular client goals or may be uncomfortable for client and/or practitioner. In addition to, or instead of, completing the actual therapeutic process outdoors, practitioners may choose to instead (or as well as) give outdoor homework. One might also choose to use nature metaphors and objects from nature in their practice (Kamitsis & Simmonds, 2017).

Why Nature-Based Therapy?

As children grow up, they learn about life from what they observe. Most of the children and youth that are growing up in today's world learn from flickering lights, contrived experiences on a screen and words and scenes that are carefully selected by someone else

(Nebbe, 1991). When a child is attached to a form of technology they are disconnected from reality and from themselves. On the other hand, spending time in nature does the opposite. As Chavaly and Naachimuthu (2020) mention, children are then in direct contact with freedom, imagination, the other people they are playing with, to the world and to the other living things they share this world with. Nebbe (1991) is steadfast in their belief that natural experiences are a fundamental part of every child's development. The benefits associated with interactions of natural and even man-made 'green' environments depend on the duration and timing of the exposure (Shanahan et al., 2016). Even though the benefits might be different depending on a variety of factors, long term exposure to natural environments has been associated to reduced mortality and improved mental health (Fong et al., 2018).

People all have their own relationship with nature, and often it is this relationship that will bring clients (or their parents) to take a look at nature-based therapy options. Research into the benefits of time in nature for children with behavioural and emotional concerns has emerged as an area of interest (Mitchell & Benkendorff, 2019). Nature-guided therapy is known as a "non-verbal expressive therapy" and these therapies often "provide the opportunity for adolescents to develop emotional literacy that is community-based, child centered, family focused and culturally appropriate...." (Sherwood, 2013, p. 3). According to Fisher (2013), all people need to experience themselves as a part of the natural world and have a need to understand their own naturalness" (p. 193).

Some clients that benefit from nature-based therapy are ones that have felt that conventional therapy was anxiety-ridden for them. Cooley et al. (2020) wrote about clients feeling "anxiety, pressure and tension towards the face-to-face interaction or feeling trapped within an indoor space" (p. 2). Youth, particularly ones that are 'at risk', tend to be less able to

engage in traditional counseling due to a general lower cognitive ability. Traditional counseling methods require a certain level of engagement, one that assumes they are able to disclose thoughts and feelings verbally. (Davis-Berman & Berman, 1994). According to Berger (2010), nature therapy can and should be incorporated into verbal therapy with clients suffering from extreme psychological difficulties. King and McIntyre (2018) state that in their study noted that "spending time with clients in nature creates a more egalitarian and less threatening structure, in which clients who might be resistant to or stigmatized by traditional therapeutic approaches can feel more comfortable" (p. 123). Even if nature-based therapy is not a central theme in a therapist's practice, it can often be incorporated to help lessen the power differential between client and practitioner and allow the client to feel more comfortable.

In addition to this, although as "range of medications have been invented, these have had only modest effects for most psychiatric disorders and concerns have increased over the impact of negative psychosocial changes..." (Sarris et al., 2019, p. 1). Sarris et al. (2019) are not suggesting that nature-based therapy replace pharmacological or psychological techniques, but rather that nature might be a helpful addition to a practitioner's toolkit. Consequently, in the recent past treatments other than pharmacological interventions or talk therapy have been proposed in various countries across the world (Chun et al., 2017).

Nature is flexible. It can be many different things, and can be incorporated many different ways, depending on the client and their wants and needs. Nature can be incorporated passively, actively or in order to build relationships with clients (Cooley et al., 2020). Nature provides calming and restorative impacts which are often beneficial for physical and emotional well-being (Bermen et al., 2008; Kaplan, 1995). This calming and restorative impact often is found to help

"unstick" therapy processes (Revell & Mitchell, 2016).

In addition to nature-based therapies being non-verbal and flexible, which are benefits when working with youth, the simple unfamiliarity of the wild might be part of the reason why it seems to work so well. Harper et al., (2018) identifies disequilibria as one part of the therapeutic processes in which we choose to engage our clients in "...wild places are unfamiliar and can be challenging practically and can philosophically invoke deep thoughts and feelings. This newness creates an imbalance..." (p. 157). Also, nature therapy is experiential in nature, placing experiences at its very core (Berger, 2010). This tends to suit youth exceptionally well. There are various opportunities in nature in which it can be used as a mirror, although one needs to make sure that the metaphors that are used with the clients match the youth's cognitive abilities, or they will be metaphorically be "left behind" (Harper et al., 2019, p. 151). Metaphors need to be chosen carefully, but when appropriate, they seem to allow the client to connect the nature experience to their own day-to-day lives. It is very apparent when a metaphor is "landing" because it seems effortless to the practitioner; a sense of vulnerability and vitality is often present as well (Harper et al., 2019, p. 155). In addition to individual metaphors, nature has "the potential to serve as a mentor for life's challenges is endless...drawing on patterns in nature can allow for normalization of difficult experiences" (Harper et al., 2019, p. 159).

Nature based therapies are often created and facilitated for a group modality. This process encourages adolescents to create and maintain interpersonal relationships as well as a sense of community (Riihimaki, 2019). In addition to group therapy, nature therapy includes multi- disciplinary teams (Gass et al., 2012, pp. 4-6). Nature, in combination with these teams of different disciplines (e.g., psychologists, social workers, nurses etc.) seem to create the ideal supportive environment for clients (Sahlin et al., 2012). It is my understanding, after reading the

research, that creating a supportive team as well as a safe environment for a client, can really benefit whoever is involved. This might include experiences such as outdoor and group activities. These can increase self-efficacy, self-esteem, and creative self-expression (Berger, 2006). The often-small groups provide adolescents a safe space, many of whom struggle with interpersonal relationships in their day to day lives (McIver et al., 2018).

Attention Restoration Theory

A reoccurring theme in the literature in regard to helping to provide evidence as to why ecotherapy works surrounds Attention Restoration Theory (ART). This theory, originally presented by Kaplan and Kaplan in the 1980's, states that humans have two completely different attention systems. Directed attention is the form of attention we humans use to solve problems and inhibit various undesired information or thoughts. Unfortunately for us, this sort of attention is limited and is a resource that we can exhaust. Human capacity of direct attention is very limited, and breaks are very necessary to refill this type of attention and allow us to concentrate again. On the other hand, involuntary attention does not seem to "deplete these same mental resources...The diverse stimuli in natural environments seem to promote the use of involuntary attention..." (Corazon et al., 2011, p. 163). Involuntary attention (also known as fascination in Sahlin et al., 2012) requires no effort at all. This fascination is completely unconscious and is at work when one is outside in nature. It is what allows us to regenerate the direct attention supplies that we need to continue work in our urban environments. To "engage" involuntary attention, we must change our environment. "Being away" from client's lives and having a change of pace is both a physical and cognitive change. Kaplan & Kaplan (1989) have suggested that regular visits to the "natural environment" can help to resolve health problems because of human's daily lives and stress surrounding their lives. Continued attention and the

following fatigue can degrade our ability greatly to solve problems and cause many different negative emotions.

Biophilia Hypothesis

Another reason that the literature supports nature-based therapies is a hypothesis that was first stated in words in 1984 by Edward Wilson. White and Heerwagen (1998) use the term "biophilia". "This is describing innate positive effects people tend to experience when immersed in natural areas. They write that even when merely presented with representations of natural phenomena, such as running water or shade under trees, euphoric feelings often ensue" (Goldberger & Waters, 2000). The authors are suggesting that the reactions people have under these (and various other) circumstances are due to evolutionary processes. The hypothesis assumes that all humans have "attachments to nature with a nature-returning instinct because humans have lived in nature for a long time" (Hee Oh et al., 2020, p. 2). It is stated by Wilson (1993) that humans are suited to be in nature and therefore feel relaxed and bonded when they are in natural settings.

Holistic Approach

This more holistic approach of therapy might help with the greater challenge that health services often face regarding comorbidity between physical and mental health challenges that are associated with sedentary lifestyles. It provides an opportunity for practitioners to be creative and to reflect on questions such as: "does the client want to work outdoors and why? Is it physically and psychologically safe for this work to be taken outdoors? What additional benefits would the outdoors provide? How does the outdoors fit with the client's recovery goals?" (Cooley et al., 2020, p. 11). Another set of questions to reflect on are ones revolving around whom or what clients thrive or benefit from being outside. Although there might be

positive effects from spending time outdoors, it does not necessarily mean that every or any therapy sessions should be moved into the outdoors. Similar to most therapeutic decisions, it should lie in the interest of the client themselves (Harper et al., 2019, p. 65).

Ecotherapy is a practice that helps to shift the modern idea of mental health from an emphasis on individuals and their autonomy to a point of view that includes communities, and an individual's ability to experience mutually beneficial relationships with other people and nature (Garrett & Garrett, 1996). Many clients that partake in nature-based therapies suggest that this shift allows individuals to feel connected to the natural world as a whole (Kamitsis & Simmonds, 2017).

Indigenous Ties

It often has a community benefit and might facilitate a potential bridge between Indigenous practices and Western psychology (Kamitsis & Simmonds, 2017). Two eyed seeing is "learning to see from one eye with the strengths of Indigenous knowledge and ways of knowing, and from the other eye with the strengths of Western knowledge and ways of knowing...and learning to use both these eyes together, for the benefit of all" (Institute for Integrative Science and Health, Cape Breton University, n.d.). However, as the authors of *Nature-Based Therapy* (Harper et al., 2019, p. 125) point out, it is important to avoid acts of cultural appropriation. Although these nature-based therapies might seem similar to Indigenous practices where land and practice are considered sacred, it is necessary to make sure that Indigenous culture and practices are held separate unless there is an Indigenous cultural elder or other leading the ceremony. These practices might include sweat lodges, vision quests and/or other ceremonies that are particular to the different nations.

The nature-based therapy program described by Radu et al. (2014), promotes personal, family and community wellness that is rooted in Cree ways of life. "Healing is

invariably described as a transformative and continuous process" (Waldram, 2013, p. 193). It encourages participants to carve a path for themselves and take steps and make decisions that are the ones that fit with their life. These might not necessarily line up with Western healing (Adelson & Lipinski, 2008). Cree life is built upon and around the land; this relationship is central to healing. A view that is brought forward from this program was one surrounding healing: That it is continuous, active and constantly negotiated and shifting with the individual.

Outdoor Therapies: Choices, choices

Table 1

Types of Nature-Based Therapies

Name of Therapy	Country most found in	Age group used with most often	Integrated technique or separate program
Walk and talk	Variety	Adults	Integrated
Adventure	USA	Youth	Separate program
Wilderness	USA	Youth	Separate, often residential program
Shinrin Yoku	Asia (esp. Japan)	Adults	Separate
Horticulture	Variety-most research done in Denmark (Nacadia gardens)	Adults	Separate
Animal assisted	North America	All	Separate
Nature based play	North America	Youth-children	Separate
Nature based therapeutic service	North America	All	Separate

^{*}Most separate programs are done in conjunction with 'regular' therapy, or because psychotherapy is not working for the client the way in which they want it to

Nature based therapies is used here as an umbrella term for a wide variety of

approaches (e.g., adventure and wilderness therapy, eco-therapy, nature therapy) (Naor & Mayseless, 2020). One practitioner might concentrate on the adventurous challenge while another places emphasis on stress-reduction through forest baths (Riihimaki, 2019). A forest bath will be defined shortly. "In literature, adventure therapy, wilderness therapy, nature therapy and outdoor therapy are often used as synonyms" (Gillis & Ringer, 1999, p. 30); however, they are different forms of nature-based therapies. Based on this literature review on nature-based therapies, there is no single definition for the methodology (Riihimaki, 2019). Ecotherapy, in general, "seems to be a form of therapy that explicitly relies on nature and wilderness to achieve therapeutic goals" (Clinebell, 1996, p. 25). In this section, the author will provide brief explanations of many of the different forms of nature-based therapies that the literature describes.

Walk and Talk

One of the "simplest" forms of nature-based therapy is the walk and talk practice. Walk and talk "offers an accessible means of integrating nature and physical activity within routine therapy practice and does not attract costs associated with other variants of outdoor-based therapies." (Revell & McLeod, 2016). Often it seems that therapists do not use walk and talk as a stand-alone therapy but will integrate it with their more traditional forms of therapeutic work.

Wilderness and Adventure Therapies

While walk and talk is a practice that can be simply added to one's 'normal, office psychotherapy' there are other forms that require a bit more of a separate program. Both adventure and wilderness therapies are programs that often are residential, varying in length and intensity. Wilderness and adventure therapies have many similarities to each other. The

two basic assumptions of both therapies are challenges and in turn risk leads to positive outcomes.

These positive outcomes can be transferred to outside the particular experience. (Berger, 2008a). The majority of the work of these two is conducted with youth and adolescents. These youths come from a variety of backgrounds, but often one of juvenile delinquency or sexual offense and/or youth at risk (Berger, 2008a). These programs often consist of adventure work at a closed center (residential treatment centers), using ropes and artificial obstacle courses as well as activities in the outdoors. Others include wilderness expeditions that are from one day to several weeks (Berger, 2008b). These wilderness experiences largely attribute their success with participants on how different this natural environment is from their home one. This nature provides immediate and honest feedback. Unlike other forms of ecotherapy, adventure therapy does not stress relationships, particularly the one between the clients and nature itself (Beringer, 2004). The idea that wilderness in all of its "naturalness" has healing properties in itself is not stressed, and sometimes not recognized in adventure therapy, unlike most other forms of naturebased therapies (Beringer & Martin, 2003). These authors highlight that although adventure therapy might not depend on the natural environments for the same opportunities as other naturebased therapies, it still relies on the natural world in some way to achieve its goals with clients. "Theoretical frame-works and explanatory models of why and how adventure programming works rarely give sufficient credit to how simply "being in nature" can contribute to personal development, healing, and therapeutic success" (Beringer, 2004, p. 52). "Studies evaluating wilderness therapies have shown them to be effective treatment processes for young people with behavioral, psychological, and psychosocial issues, while also showcasing wilderness therapy's capacity for prevention and use in early intervention strategies" (Bettmann et al, 2016; Bowen et

al., 2016; Combs et al, 2016; Dolgin, 2014; Norton et al., 2014).

Most of this work is completed in groups. The success of wilderness therapy (and some might add all nature-based therapies) depend on a very interwoven, complex web of relationships-those to staff, those to peers, to oneself and to the very unpredictable nature surrounding us (McIver et al., 2018). This group experience appears to be important in wilderness therapy. As Bandoroff and Scherer (1994) state, "it fosters positive peer relationships, emphasizes the necessity of working cooperatively within a community and provides opportunity for developing trust, effective communication and problem-solving skills…" (p. 176).

Universality is describing the idea that group members are not alone—others share the same experiences and symptoms (Yalom, 1985). Clients in wilderness therapy constantly report universality as the most significant and valued experience in a group (Butler & Fuhriman, 1983). This group will often become a direct mirror of the relationships that the client has outside of the group itself (Yalom & Leszcz, 2005).

As well, child and youth care has long been connected to camping, outdoor recreation as well as adventure therapy programming (Harper, 2017). Therapeutic camping is frequently included as part of a larger residential treatment program agenda and seems to include the family as well (Harper, 2017). There were a wide variety of positive outcomes in these experiences as stated in the article by Harper (2017).

A further experience that many participants of wilderness therapy groups undergo is a wilderness solo experience. "The wilderness solo experience is commonly offered by counselors, psychotherapists, coaches, and educators, as well as by outdoor adventure leaders, and has gained empirical and professional credibility as one of the most influential components

of outdoor education, contributing to participants' learning and growth" (Bobilya et al., 2005; Daniel, 2005; Kalisch et al., 2011). The solo experience is often a path that allows people in modern society to retreat and develop an understanding of the value of silence (Naor & Mayseless, 2020). In an additional study completed by Naor and Mayseless (2020) it appears that higher levels of concentration in teenagers was found during time spent by themselves as well as higher levels of alertness following two hours of solitude.

Shinrin Yoku

One could also look to various other areas of the world for examples of nature-based therapies. In some countries in Asia (including Japan, Korea, Taiwan and China) forest bathing (also known as Shinrin-Yoku) is a popular technique to lower stress. This is a traditional Japanese practice of immersing oneself in nature by mindfully using all five senses (Hansen et al., 2017). It is considered a form of alternative therapy due to its various health promoting effects (Cheng et al., 2009). It is shown that contact with the outdoors, and it particular forests can have the effect of lowering levels of cortisol in humans (Lee et al., 2011). The response to forests is different depending on the individual, however, one thing appears to be clear: there is a tendency towards a reduction of stress in all when exposed to forests. Visiting forest environments is increasingly receiving attention for its potential to help humans manage stress, and to promote mental, psychological and physical health (Kim et al., 2020). In general, from a physiological perspective, significant empirical research findings point to a reduction in human heart rate and blood pressure and an increase in relaxation for participants exposed to natural environments (Tsunetsugu et al., 2010). Song et al. (2016) states that in Japan, there has been increasing attention in using the forest environment in a therapeutic way. As well, in 1990 "a preliminary study was conducted...although the sample size was small, the results indicated

that spending time in a forest environment can reduce stress state" (Miyazaki & Motohashi, 1996, as cited in Song et al., 2016, p. 3). There might be some missing articles in the literature due to the lack of translations from their original language to English (Annerstedt & Warburg, 2011).

Greencare

If one is to take a look at areas a bit closer to home, green care is one nature-based therapy that involves taking care of our general home: Earth. It encompasses activities such as farming, animal assisted interventions, social and therapeutic horticulture, healing gardens and facilitated green exercise (Summers & Vivian, 2018). According to Annerstedt & Warburg (2011), this type of therapy is often used with adolescents at risk to help with a variety of psychological afflictions, such as adjustment or addictions.

A subsection of green care is horticulture therapy. One may also hear this form of therapy being called garden therapy. These terms, along with therapeutic horticulture are often used interchangeably. However, horticulture therapy is the use of plants by a trained professional to meet clinical goals for a client. Therapeutic horticulture is often a passive experience, which clients may develop by gardening (Annerstedt & Warburg, 2011). Kamitsis and Simmonds (2017) describe horticulture therapy as clients participating in structured gardening activities and who are aided by a trained professional to achieve particular goals. A relationship is built between the client, practitioner, and the nature that they care for (Harper, Rose & Segal, 2019, p. 26). This therapy often takes place in a community garden plot, and the clients are held accountable for their individual actions in the broader community. "This therapy has been used successfully across populations, from children struggling in school settings to war veterans dealing with PTSD" (Burns, 2014, p. 27).

Animal Assisted Therapy

Animal assisted therapy is another very structured nature-based therapy that "aims to improve psychological health by incorporating professionally facilitated activities with animals" (Parshal, 2003, as cited in Kamitsis & Simmonds, 2017, p. 232). They are commonly described as a way for clients to build relationships and engage with another species. This approach can include a variety of animals (e.g., horses, dogs, goats), depending on the resources the therapist has available to them, as well as what would best suit the client's needs. A client might spend different amounts of time with their preferred animal and learn to develop a relationship with the animal.

Nature-based Therapeutic Service

Nature-based therapeutic service is an approach that integrates community service, personal wellness and sustainability (Weaver, 2015). It includes doing a variety of services for nature as a way to build relationships between participants and between humans and their natural environment. It is a goal orientated approach that is thought of as both ecotherapy and service- learning combined (Weaver, 2015). The therapists help the client complete the service, as well as taking on more of an educational role by helping them learn whatever the necessary skills are to complete the task. This process can be powerful for clients and helps to connect them to a need in the natural world (for example, cleaning up plastic from the ocean) and as mentioned earlier, connect them to something bigger than themselves.

The authors of *Nature-Based Therapy* (Harper et al., 2019, p.30) believe that "practitioners need to clearly identify what their practice is and comprised of and call it such." This is particularly relevant with nature-based therapies due to the large amounts of different therapies that fall under the broad umbrella term.

Nature and Physical Health

As mentioned earlier, physical health of adolescents is a rising concern in the recent decades in Canada and in the world. Anderson and Butcher (2006) reported that although obesity has increased among all children, it has increased more dramatically in children from low socioeconomic status (SES) homes. Strauss et al. (2001) looked at the relationship between physical activity, self-esteem, and social support in children, along with factors of health beliefs, self-efficacy, and sedentary activities. This study found that children spend 75.5% of their day inactive and only 1.4% engaged in vigorous activity. This research is disturbing, especially because it suggests that spending time in a sedentary state is linked with heart disease, higher rates of obesity and cancer (Carrera-Bastos et al., 2011). These are known as the diseases that occur when people live inside by Miller (2012).

Sackett (2010) encourages practitioners to incorporate some form of ecotherapy into their practice, seeing as ecotherapy can perhaps be the vehicle that the counselling profession can employ to make a societal impact on this unfortunate statistic. Outdoor time "has been linked with physical activity increase and lower chronic disease risk, including cancer, cardiovascular diseases, diabetes and obesity" (Beyer et al., 2018, as cited in Chavaly & Naachimuthu, 2020, p. 85).

Cooley et al. (2020) stated that clients "became more physically active, in tune with their bodies, emotions and behaviours, and also more connected with the practitioner at a deeper holistic level" when therapy was completed in a nature-based environment. Physical movement appeared to help therapists connect with their clients on a deeper level psychologically.

According to Riihimaki (2019) physical activity in nature increases the experienced relaxation, decreases depression and strengthens self-esteem. The mind and body alliance

makes sure that when the stress levels decrease, the mind feels lighter. Goldberger & Waters (2000) also agree that exercise outdoors appears to have many different benefits. Physical movement sometimes required in nature-based therapies seems to release "feel good" hormones in the human brain, which is proven to help to alleviate symptoms of anxiety and depression. This "green exercise" is a specific physical activity (such as running, walking, biking...) and at the same time, being exposed to nature (Pretty et al., 2005).

Nature-based Play and Neurophysiology

"We are mammals. We have mammalian nervous systems and nature is the ideal mammalian environment" (Harper et al., 2019, p. 86). Selhub and Logan (2012) explain that serotonin levels actually increase in the presence of nature, heart rate decreases and activity in the right hemisphere of the brain is stimulated. They state that it doesn't need to be "fancy"; even the presence of wood in the home has a calming and positive effect on our well-being. According to Sundaram (2014), our modern brain requires a lot of energy to filter out information that we do not want, and it gets tired, forgets and has difficulty focusing. Nature provides us with mental clarity. Therefore, even conducting therapy in nature can have positive effects.

Nature-based therapies often work within a few different development zones (Harper et al., 2019, p. 95). This concept is common in experiential education and various outdoor teaching methods. There are three zones: comfort, stretch and panic. In order for growth to occur, one must be in the stretch or in the growth zone. This varies depending on the client and must be approached with caution, because once the panic zone is entered it is difficult to leave. A human brain is more aroused the closer the zones get to the panic zone. Very often clients will arrive at to a session with their nervous systems in high alert (Harper et al., 2019, p. 131) and already

very close to this previously mentioned 'panic zone'. If youth are trying to work through stressors, from a "physiological perspective, they are in a highly specific neuropsychological state that is intended to keep them safe and mitigate danger" (Harper et al., 2019, p. 131). If we as therapists can open the door to enthusiasm and invite them to embrace both a relationship with the practitioner and nature, we are encouraging their nervous system to feel safe.

Play is the "neural state of sympathetic arousal plus social engagement" (Harper et al., 2019, p. 99). Nature-based play combines two very well-known theories that are often used with adolescents and children. Psychoanalysts Anna Freud (1928) and Melanie Klein (1932) were pioneers in developing play theories and different techniques for children therapy. "It is widely acknowledged that outdoor play (compared to indoor play) provides unique opportunities and positive experiences." (Mitchell & Benkendorff, 2019). According to Stigsdotter et al. (2010), the designated natural space should be appealing, accessible and safe. In addition, the space should provide an opportunity for the children to interact freely with nature, without any or minimal guidance from an adult. When sessions are conducting outdoors clients seem to enjoy them more, as well as be more willing to focus on the tasks, instead of asking to use the computer or other electronics in the practitioner's office (Greenleaf et al., 2014). Nature constantly provides opportunities for play that is engaging and also helpful in regulation and calming youth's overstimulated nervous systems (Harper et al., 2019, p. 131).

Children or youth that are generally used to playing indoors may need encouragement or guidance when first introduced to the space (Swank & Shin, 2015). This change in space (from indoor to outdoor) might be upsetting for the client and therefore may present challenges for the practitioner. It is, as always, important to recognize that nature-based play is not appropriate for every client that one works with.

Nature and Mindfulness

Nature seems to provide the perfect setting for practicing mindfulness. "The techniques of mindfulness, including awareness and meditation focus on developing awareness of the present moment and detaching from habits" (Sundaram, 2014, p. 58). It has been found that the practice of mindfulness instills confidence in clients and trust in not only the therapeutic process, but also in themselves. Sundaram (2014) found that:

"If both mindfulness and nature can increase the size of our pre-frontal cortex, reduce stress, boost immune function, cognitive abilities, increase serotonin levels and, most importantly, help us enter into relationship with others in a more holistic manner, then why are we not all engaging in these practices? Perhaps humans are too resistant to change and turning towards our sufferings appears counterintuitive in our happiness seeking culture. The pharmaceutical industry offers a quick fix to what ails us and this appears to be an easier option than sitting down and observing whatever comes up" (p. 65).

There have also been several studies done regarding acceptance and commitment therapy (ACT) and nature-based therapies. This is a branch of mindfulness and behaviour therapies (Roemer & Orsillo, 2009) which emphasizes our meta-cognitive relation to our thoughts and emotions instead of focusing on changing content. This is different than the normal goals of traditional cognitive behavioural therapy (Hayes et al., 2004). ACT is based on six core processes: mindfulness outdoors, acceptance, diffusion, self as context, value clarification and committed action (Corazon et al., 2012). These six processes can easily be translated into nature- based therapy. Mindfulness is encouraged to be completed while on a walk or simple stimulation activities. Nature and her constantly changing state allow clients

(and practitioners) to accept and allow the present moment to unfold as it's meant to. Diffusion relates to our habitual behaviours and thoughts-ones that at one point protected us but might become undesirable in the long run. Psychological flexibility can be compared to the permaculture principle of "creatively use and respond to change".

With adolescents, mindfulness in nature can often be disguised as a game. This allows for the youth to practice being still and practice without feeling as though they are being forced to partake in something they are opposed to. These youths are often against "quiet time" but will gladly play a game that forces them to be still (Harper et al., 2019, p. 101).

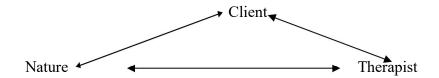
A very important consideration when working with somatic perspectives and mindfulness is that there might be a history of trauma in these youth/adults and this history might create a visceral and different reaction to the stressor then was anticipated. Ensuring that the person's life history and story is taken into account when completing therapy is of highest importance (Harper et al., 2019, p. 104).

Nature as Co-therapist

Nature-based therapy is based on one main assumption: that therapy can be "conducted in nature, and that nature can be regarded as a therapeutic environment, that is a sacred place. Nature is a vital, dynamic presence that is not under the control or in the possession of therapist or client" (Berger & Lahad, 2013, p. 43). Practitioners that work "with nature, actively influencing, yet unpredictable-expand the typical dyad of therapist/client." (Naor & Mayseless, 2020, p. 15). This unpredictable yet somehow stable element of this triad allows the practitioner not to be focused on controlling the therapeutic environment, but instead "seeking ways to integrate nature's input into the therapeutic process for the client's benefit" (Naor & Mayseless, 2020, p. 15).

Figure 1

Therapist-Client-Nature Relationship



This new therapist-client-nature relationship seemed to maintain some degree of asymmetry (aka., the client remained the client and the therapist remained the therapist) but according to Cooley et al. (2020), clients felt that the therapeutic encounter outside had more mutuality when compared to sessions inside of an office. There appears to be a feeling of equality in the relationship and a real sense of support from the therapist when the two walked side by side in nature (Revell & McLeod, 2016). In order for the therapist to genuinely cofacilitate with nature, "a therapist has first to establish a significant appreciation for, and relationship with nature herself" (Harper et al., 2019, p. 127). In addition to this, the amount in which clients see themselves as part of nature, or have an appreciation for nature, must be taken into account when deciding on the best way to facilitate with nature (if at all).

Practitioners are encouraged to develop certain guidelines that they themselves abide by. For example, using nature as a backdrop and working directly with the client (Berger, 2020). On the other hand, the therapist might take a quieter role, allowing the client to work with nature and simply being a container and a human witness to the experience (Berger, 2008b). There is a large body of research that suggests that both passive participation and more active forms of ecotherapy can help with anxiety (Mackay & Neill, 2010), depression (Barker & Dawson 1999), and stress (Kam & Siu 2010), as well as improve self-esteem (Pretty et al. 2005) and attentional capacity (Duvall, 2011).

Potential Pitfalls

Summers and Vivan (2018) point out that although there is a rising trend in nature-based therapies, human change is never reductionist. Therefore, several potential causes for any change occurring in humans is possible; it is generally never only one event or process that creates change in a person. Although there seems to be extensive research and support for nature-based therapies, in the working practitioners, there is still a resistance to incorporating it into their practice. This resistance might be because of a need of more information "related to defining ecotherapy, ethical implications, a need for training, and confirmation of what research indicates regarding the benefits of utilizing nature in therapy to enhance mental health" (King & McIntyre, 2018). "More firm ethical guidelines and training programs that teach these guidelines can bring more legitimacy to the practice by standardizing best practices" (King & McIntyre, 2018, p. 123).

Based on a review of the literature, part of this resistance might be due to the liability surrounding bringing clients outside. "Insurance is an important concern as the environment is uncertain and clients could potentially injure themselves or have an allergic reaction to flora or fauna (Sundaram, 2014, p. 64).

As well, it should be mentioned that "research indicates that not all-natural environments are equally restorative, and that the health-promoting effect is related to specific environmental characteristics" (Corazon et al., 2012, p. 339). Practitioners need to be aware of potential practical issues (e.g., weather, terrain and physical safety risk), therapeutic issues (unpredictability of the natural space which makes it more difficult to maintain boundaries and confidentiality) and organizational issues (perceived lack of guidance and support, supervisors and funding). The last two issues will be discussed further in the ethics section of this review.

In addition, when the relationship is brought outside, this may create difficulty regarding the clarity and ease in which the client is heard by the practitioner (Revell & McLeod, 2016). The application of nature can be extremely flexible and connected to the client's needs, as well as the environment in which it takes place (Berger, 2010). This can be seen as both a strength of the therapy, but also a negative, depending on the quality of the therapist that is executing the therapy.

As Kaplan and Kaplan (1989) state:

"people have become acclimated to the overstimulating and harassing conditions in which they life...one study completed found that urban dwellers became anxious and even "distraught" when spending time outside, because the silence that ensued in these circumstances was so foreign to them" (p. 11).

It is important that as a therapist we take the client's needs and life situations into account before nature-based therapies are used. Like all therapeutic interventions, it is key to make sure that the intervention matches the client's needs.

Research, although increasing, is also still very limited, especially with regards to quantitative effect studies (Stigsdotter et al., 2011). Stigsdotter et al. (2018) state that a lack of evidence in this field was really a large limitation in their study; it made it difficult to recruit participants for the study in the first place. As Mitchell and Benkendorff (2019) stated, small sample sizes and restricted participant demographics are common, which does not allow the research to be reproduced widely. As well, many studies, including the one completed by Chun et al. (2017), have several limitations including a lack of investigation of the long-term effects of forest therapy treatment and the actual mechanism underneath it all. Perhaps due to the lack

of research in this field still, health counselors are provided with minimal or no guidelines about what wilderness-based activities create the "most therapeutic benefits" (Gillis, 1995).

Ethics

Ethics are of the utmost importance because it is crucial to maintain integrity and safety for clients in the mental health profession. Ethics are "a fluid process, not static entities, and that we need to be attuned to the immediate needs and circumstances of our clients versus getting hung up on deciding whether things are right or wrong" (Harper et al., 2019, p. 226). There are ethical rules set out by professions in various codes and are generally in place to protect clients from therapist's unethical behaviour.

Nature based therapies lack to provide ethical codes (Riihimaki, 2019). For those that are involved in ecopsychology, there is no cohesive group in most countries or the world in terms of training or certification. "Gradually, through our peer-reviewed journal and various professional groups, we are finding each other and becoming a more-or-less coherent community, but we still have a long way to go..." (Koziol & Buzzell, 2017, p. 117). There seems to be many more than one or two ways to relate to and "do" nature therapy (Berger, 2010). However, calling oneself as an adventure or outdoor therapist is under every person's own judgment and reliability to the ethical codes of mental health professionals or specialized ethical codes for adventure and outdoor practitioners. (Gass et al., 2012, p. 255; Russell 2001, p. 3). "Nature-based therapists wishing to meet ethical standards for boundaries of competence need to receive formal training in counseling, or an allied helping profession, and then supplement that with training in their desired ecotherapy specialty..." (Harper et al., 2019, p. 236). However, there are no national or international set of competencies and very few routes of training opportunities. Due to this, there is a lack of competent supervision and consultation

available.

According to Berger (2008c), ethics should include, and often do, a broad perception of the complexities that the profession may face and consequently develop a collection of guidelines and rules to work within. Part of the complications surrounding nature-based therapy ethics revolves around the idea that there are many different subsections of this large umbrella term. Therefore, the question remains: should each subsection have their own ethics code, or should there be an overarching one as well? Different forms of nature-based therapies have their own ethical codes that they work under (Berger, 2008b). It is my understanding that it is more difficult to get liability insurance for nature-based therapists. This ethical code must include two main aspects: relationships between the people that the work includes (therapists and clients, clients and professionals, colleagues) and relationships between all participants and nature (therapists and nature, clients and nature) (Berger, 2008b). When offering therapy programs for the clients, professionals need to make sure that they are following ethics and that the participants are not provided treatment without the knowledge of therapeutic applications (Richards, 2016, p. 254). The difference between therapy, therapeutic action or recreation or education can be experienced as a fine line, and it might be hard to address (Richards, 2016, p. 254).

There is discussion in the literature about confidentiality within nature-based therapies, and how one can potentially protect the client when in such a variable environment. Reese (2016) suggests that the therapist and client should create a plan together about the potential outcomes that might crop up while in nature. Becker (2010) highlights the potential difference in some practitioner or client's minds between "formal" therapy happens (i.e., group or individual therapy) and less formal conversations (e.g., conversations while hiking or over a

shared meal). Is it possible that both require confidentiality?

Professional boundaries are considered integral to mental health professionals' work. Boundaries among nature-based therapists, particularly wilderness therapists, are "likely to maintain fewer boundaries than many traditional practitioners due to the nature of the treatment structure and modality approach" (Becker, 2010, p. 56). This warrants an explicit discussion between client and therapist regarding boundaries. As well, supervision and ongoing consultation is helpful for the practitioner to make sure that even if the boundaries are being stretched, they are still in place to make sure that the clinical focus is maintained.

Harper, Rose and Segal (2019) states that in order to honor morality and ethical principles of beneficence and nonmalificence, nature-based therapists are obliged to make sure that the treatment options they provide are relatively safe and effective (p. 234). Efficacy, and how to prove that in nature-based therapies is an important issue. Practitioners that work within various government organizations are generally bound to empirically/evidence-based treatment options. According to *Nature-Based Therapy* (Harper et al., 2019, p. 234), due to a lack of randomly controlled studies, nature-based therapies are unlikely to fall within these treatment options anytime soon. This is unfortunate. Evidence-informed practices are ones that draw on a wide body of existing research, and this is what nature-based therapies are generally thought of. This discussion surrounding efficacy of nature-based therapies is currently an area that is still under review.

According to the projections of the United Nations Population Division, by 2030, more people in the developing world will live in urban than rural areas, and by 2050, two thirds of the world population is likely to live in completely urban environments. Urban dwellers, because of

their lack of connection to nature and various other factors face stressful situations in their everyday lives. It appears then that ways to manage and mitigate stress for the human population will be more and more important in the coming years (Srivastava, 2009). There seems to be no argument in the literature: When integrated into counselling, time in nature provides unique opportunities for healing (Greenleaf et al., 2014; Revell & McLeod, 2017). The question that remains is one of not "why" but "how". Helping clients of all ages reconnect with nature promotes healing of all kinds (Stigsdotter et al., 2010). Thus, promoting connection of nature and children is essential to their well-being. Further work however is needed to standardize and establish evidence-based guidelines, particularly for nature-based therapy work with adolescents (Atkins et al., 2020).

In conclusion, spending time in nature might be just what the doctor ordered (Hart, 2016). The more one spends time in nature, the more they will connect with it, and the more they will seek opportunities to be in it. This connection encourages positive mental health feelings, as well as a feeling of wanting to protect nature (Reese et al., 2019). In the next section I will explain what has drawn me to this particular area of work and what my personal background and location are.

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Chapter Three: Project Plan

Introduction

As investigated in the previous literature review, wilderness activities, in particular wilderness in combination with psychotherapy has been seen (qualitatively) to have positive effects on youth and their relationships with the world and the people in their lives. Although the research on nature-based therapy is unable to be replicated and generalized to a much larger population, the positive effects and results it has on its participants should not be discounted.

Due to my extensive experience in the outdoors, I have always been drawn to this area of therapy and indeed in my own personal experience working in the field of wilderness therapy, I have seen the positive changes in the youth I worked with.

In the introduction section of the manual, there is a discussion of the various types of nature-based therapy that are available and used throughout the world. In addition to this discussion, there is a section regarding Indigenous knowledge and making sure that practitioners are aware of the potential to be culturally insensitive.

In the last few years, while living and working on the Gitxsan territory near Terrace, I found that not only was direct and intentional nature-based therapy useful, but just being in the outdoors with the youth seemed to also bring about positive changes in them. The following project will include different activities and ideas to incorporate nature into indoor practice, or if the practitioner believes that it suits the client, ways to take it outside.

What do I mean when I say...?

When creating a manual that various people are using, it is vital to make sure that important terms are defined. This ensures all are on the same page (or as much as possible).

Wilderness, and in turn, nature, is a difficult word to define due to many different definitions and subjective understandings over time. "Wilderness has etymological roots in early Saxon and Celtic history-loosely meaning wild animal nest/territory and used to denote 'wild' uncultivated lands" (Harper et al., 2018). Nature, according to *Wikipedia* is the natural, physical, material world or the universe. It can refer to life in general, and although humans are part of nature, they are often seen as a separate category from other natural events.

Another word that will be commonly utilized in this manual is the word youth. The term youth will be descriptive of any person between the ages of 10 and 24 years of age, and those who are developmentally between childhood and adult age. In addition to this word, adolescent and teenager will be used interchangeably with the word youth.

Who might benefit from this manual?

This brief section is almost an invitation. An invitation that will be extended to practitioners who are involved in the mental health sector.

There are a wide range of professionals who might benefit from the activities included in the manual, but the focus is on the mental health sector. I hope that the manual is an inspiration to take parts of your practice outside or find ways to bring bits of nature inside. I have intended for the manual to be a way to make this practice much more accessible for all practitioners, regardless of experience in nature. It can be read in any direction, with any section read when needed; there is no order necessary to the manual.

Benefits

In this section the manual will go through the different benefits of nature-based therapy, particularly ones that have been found throughout the previous review of the current and past literature on the subject.

Evaluation

As anyone who works with people in the mental health capacity can tell you, efficacy is extremely hard to measure in a quantitative way for these types of programs. However, qualitative data can provide a different and informative perspective on the effects of various forms of therapy. Some suggestions of questions that might be useful include:

- What was helpful about this activity? What was not?
- If you could have done part of the activity again, what part would you? If any?
- Do you have any suggestions of activities that would be helpful for you?

Things to be watchful of

This section is imperative for practitioners using nature-based therapies. It is a section that will lay out the various ethical and practical considerations to be careful of when incorporating nature into one's therapeutic practice.

Ouestions to ask oneself

In *Nature-Based Therapy*, there are a list of useful questions for practitioners to ask themselves before and during a nature-based therapy practice. I found this extremely useful and will adapt the list of questions to fit my audience: The Northern based practitioners of British Columbia. These questions are important to ask oneself because of the self-reflective nature of the process. As with most processes in therapeutic practice, it is integral to the practice to be reflective on how/why things worked, didn't work and how to be constantly improving. If one is serious about providing effective, non-harmful care, then these questions will allow you as the practitioner to see whether or not nature-based therapies fit your clients (or some of them). Some examples of questions include:

-Have you studied ecopsychology, outdoor education or another related field?

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-Are you registered with a body of professionals (e.g., counselors, psychologists, social

workers etc.)

-Do you receive weekly supervision? What are the opportunities for you as a

practitioner to receive adequate supervision as a nature-based therapist?

-Are you working with a team or individually? If you are working alone would it

make sense to pair with another professional in your community?

Ways to incorporate nature into "indoor" counselling

I included a separate section for ideas of ways to bring nature into one's general

practice. This will include different ideas of metaphors and homework that one could speak to

the client about without ever stepping foot outside together. I believe that this section is

important because of various reasons practitioners have spoken to me re: feeling uncomfortable

about taking their practice outdoors (and rightly so!). If one is feeling uncomfortable, then this

section provides ways to still bring nature into your therapy sessions.

Potential Activities to move therapy outdoors

The final section of the manual will include various potential activities and ways to

therapy in the outdoors. The activities are best organized according to the different seasons.

As well, each activity will have a material/clothing list associated with it.

An example activity would appear like this:

Name: Sit Spot

Material needed: None, other than something to sit on if the ground is damp or wet.

Season: Spring/Summer

Description: Client will find a spot in the green environment that you (practitioner) and the client

have chosen together. This spot can be anywhere comfortable for the client. Often people are drawn to places that have a good spot to sit, as well as a good view, but it is entirely up to the client's discretion, as long as it is safe. Each session client spends a designated amount of time there alone. This time can be anywhere between 1-10 minutes, depending on comfort level of client and length of therapy session. When client returns from sit spot, therapist can prompt the client to share what was on their mind, or what they noticed while sitting still. These open-ended questions can allow the session to begin based on something concrete, which is sometimes easier for clients.

Reason for incorporating this activity: There is literature that states that even simply "being" in nature can provide benefits for people and it allows us to move into the present moment and focus on being aware of our senses and our environment (Brazier, 2009). Using a sit spot regularly can encourage clients to come into the here-and-now organically. This can also allow practitioners to use metaphors from what the client noticed during their sit spot.

References

- Adelson, N & Lipinski, A. (2008). The Community Youth Initiative Project. In Waldram, J.B. (Ed), *Aboriginal Healing in Canada: Studies in Therapeutic Meaning and Practice* (pp. 9-30). National Network for Aboriginal Mental Health Research and Aboriginal Healing Foundation.
- Anderson, P. M., & Butcher, K. F. (2006). Childhood obesity: Trends and potential causes.

 The Future of Children, 16(1), 19-45. doi:10.1353/foc.2006.0001
- Annerstedt, M., & Wahrborg, P. (2011). Nature-assisted therapy: Systematic review of controlled and observational studies. *Scandinavian Journal of Public Health*, 39, 371-388.
- Antony, M. M., & Swinson, R. P. (2000). *Phobic disorders and panic in adults: Guide to assessment and treatment.* American Psychological Association.
- Bandoroff, S., & Scherer, D.G. (1994). Wilderness family therapy: An innovative treatment approach for problem youth. *Journal of Child and Family Studies*, *3*(2), 175-191.
- Barkan, A. (2002). Different faces of the setting. Sihot—Dialogue, The Israel Journal of Psychotherapy, 17, 39-46.
- Barker, S. B., & Dawson, K. S. (1999). The effects of animal-assisted therapy on anxiety ratings of hospitalized psychiatric patients. *Psychiatric Services*, 49, 797-801.
- Barton, J., & Pretty, J. (2010). What is the best dose of nature and green exercise for improving mental health? A multi-study analysis. *Environmental science* & *technology*, 44(10), 3947-3955.

- Becker, S.P. (2010). Wilderness therapy: Ethical considerations for mental health professionals. Child Youth Care Forum, 39, 47-61.
- Berger, R. (2004). Therapeutic aspects of nature therapy. *Therapy through the Arts—The Journal of the Israeli Association of Creative and Expressive Therapies*, 3, 60-69. (Hebrew).
- Berger, R. (2006a). Incorporating Nature into therapy: A framework for practice. *Journal of Systemic Therapies*, 25(2), 80-94.
- Berger, R. (2006b). Beyond words: Nature therapy in action. *Journal of Critical Psychology, counselling and psychotherapy, 6*(4), 1-6.
- Berger, R. (2008a). Developing an ethical code for the growing nature therapy profession.

 Australian Journal of Outdoor Education, 12(2), 47-52.
- Berger, R. (2008b). *Nature Therapy Developing a Framework for Practice*. A Ph.D. School of Health and Social Sciences. University of Abertay, Dundee.
- Berger, R. (2008c). Building a home in nature: An innovative framework for practice. *Journal* of *Humanistic Psychology*, 48(2), 264-279.
- Berger, R. (2009a). Nature therapy: Thoughts about the limitations of practice. *Journal of Humanistic Psychology*, 50(1), 65-76. doi:10.1177/0022167809333999
- Berger, R. (2009b). Being in nature: An innovative framework for incorporation of nature in therapy with older adults. *Journal of Holistic Nursing*, *27*, 45-50.
- Berger, R. (2020). Nature therapy: Incorporating nature into arts therapy. *Journal of Humanistic Psychology*, 60(2), 244-257.
- Berger, R., & Lahad, M. (2013). The healing forest in post-crisis work with children: A nature therapy and expressive arts program for groups. Jessica Kingsley Publishers.

- Berger, R., & McLeod, J. (2006). Incorporating nature into therapy: A framework for practice. *Journal of Systemic Therapies*, 25(2), 80-94.
- Beringer, A., & Martin, P. (2003). On adventure therapy and the natural worlds: Respecting nature's healing. *Journal of Adventure Education and Outdoor Learning*, 3(1), 29-40.
- Beringer, A. (2004). Toward an ecological paradigm in adventure programming. *Journal of Experiential Education*, 27(1), 51-66. https://doi.org/10.1177/105382590402700105
- Berman, M. G., Jonides, J., & Kaplan, S. (2008). The cognitive benefits of interacting with nature. *Psychological Science*, 19(12), 1207-1212. doi:10.1111/j.1467-9280.2008.02225.x
- Bettmann, J. E., Tucker, A., Behrens, E., & Vanderloo, M. (2016). Changes in late adolescents and young adults' attachment, separation, and mental health during wilderness therapy. *Journal of Child & Family Studies*, 26, 511-522. doi:10.1007/s10826-016-0577-4
- Beyer, K. M. M., Szabo, A., Hoormann, K., & Stolley, M. (2018). Time spent outdoors, activity levels, and chronic disease among American adults. *Journal of Behavioral Medicine*, 41(4), 494-503. https://doi.org/10.1007/s10865-018-9911-1
- Bobilya, A. J., McAvoy, L. H., and Kalisch, K. R. (2005). Lessons from the field: participant perceptions of a multi-day wilderness solo. In Knapp, C. & Smith, T (Eds.), *Exploring the Power of Solo, Silence, and Solitude* (pp. 103-121). Boulder, CO: Association for Experiential Education.
- Bowen, D. J., Neill, J. T., & Crisp, S. J. (2016). Wilderness adventure therapy effects on the mental health of youth participants. *Evaluation and Program Planning*, *58*, 49-59. doi:10.1016/i. evalprogplan.2016.05.005

- Brazier, C. (2009). Other Centered Therapy: Buddhist Psychology in Action. O-Books.
- Burns, G.W. (2014). *Nature-guided therapy: Brief integrative strategies for health and well-being*. Routeledge.
- Butler, T., & Fuhriman, A. (1983). Curative factors in group therapy: A review of recent research literature. *Small Group Behavior*, 14, 131-142.
- Carrera-Bastos, P., Fontes-Villalba, M., O'Keefe, J., Lindeberg, S., & Cordain, L. (2011). The Western diet and lifestyles and diseases of civilization. *Research Reports in Clinical Cardiology*, 2, 15-35.
- Chavaly, D., & Naachimuthu, K.P. (2020). Human nature connection and mental health: What do we know so far? *Indian Journal of Health and Well-being*, 11(1-3), 84-92.
- Cheng W.W., Lin, C.T., Chu, F.H., Chang, S.T., & Wang, S.Y. (2009). Neuropharmacological activities of phytoncide released from Cryptomeria japonica. *Journal of Wood Science*, 55, 27-31.
- Chun, M.H., Chang, M.C., & Lee, S.J. (2017). The effects of forest therapy on depression and anxiety in patients with chronic stroke. *International Journal of Neuroscience*, 127(3), 199-203.
- Clinebell, H. (1996). Ecotherapy: Healing ourselves, healing the world. Fortress Press.
- Combs, K.M., Hoag, M.J., Javorski, S., & Roberts, S.D. (2016). Adolescent self-assessment of an outdoor behavioural health program: Longitudinal outcomes and trajectories of change. *Journal of Child Family Studies*, 25, 3322-3330.
- Cooley, S.J., Jones, C.R., Kurtz, A., & Robertson, N. (2020). "Into the wild": A metasynthesis of talking therapy in natural outdoor spaces. *Clinical Psychology Review 77*, 1-14.

- Corazon, S.S., Schilhab, T.S.S., & Stigsdotter, S.S. (2011). Developing the therapeutic potential of embodied cognition and metaphors in nature-based therapy: lessons from theory to practice. *Journal of Adventure Education and Outdoor Learning*, 11(2), 161-171.
- Corazon, S.S., Stigsdotter, U.K., Moeller, M.S., & Rasmussen, S.M. (2012). Nature as therapist: Integrating permaculture with mindfulness and acceptance-based therapy in the Danish Healing Forest Garden Nacadia. *European Journal of Psychotherapy and Counselling*, 14(4), 335-347.
- Daniel, B. (2005). The life significance of a wilderness solo experience. In Knapp, C & Smith, T (Eds.), *Exploring the Power of Solo, Silence, and Solitude* (pp. 85-102). Boulder, CO: Association for Experiential Education. doi:10.1300/j015v15n03_07
- Davis-Berman, J., & Berman, D.S. (1994). Research update: Two-year follow up report for the wilderness therapy program. *The Journal of Experiential Education*, 17(1), 48-50.
- Davis-Berman, J., & Berman, D.S. (2008). *The promise of wilderness therapy*. Association for Experiential Education.
- Dolgin, R. (2014). Into the wild: A group wilderness intervention to build coping strategies in high school youth through collaboration and shared experience. *Journal of Creativity in Mental Health*, 9(1), 83-98. doi:10.1080/15401383.2013.864963
- Du Nann Winter, D., & Koger, S. M. (2004). *The psychology of environmental problems.* (2nd ed.). Lawrence Erlbaum Associates, Publishers.
- Duvall, J. (2011). Enhancing the benefits of outdoor walking with cognitive engagement strategies. *Journal of Environmental Psychology*, 31, 27-35.

doi:10.1016/i.ienvp.2010.09.003

Dybvik, J.B., Sundsford, S., Wang, C.E.A., & Nivison, M. (2018). Significance of nature in a

- clinical setting and its perceived therapeutic value from patients' perspective. European Journal of Psychotherapy & Counselling, 20(4), 429-449.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. W. W. Norton.
- Fisher, A. (2013). *Radical ecopsychology: Psychology in the service of life (2nd ed.)*. Albany, NY: Suny Press.
- Fong, K. C., Hart, J. E., & James, P. (2018). A review of epidemiologic studies on greenness and health: Updated literature through 2017. *Current Environmental Health Reports*, *5*(1), 77-87. https://doi.org/10.1007/s40572-018-0179-y
- Garrett, J. T., & Garrett, M. T. (1996). *Medicine of the Cherokee: The way of right relationship.*Santa Fe, NM: Bear.
- Gass, M., Gillis, H.L., & Russell, K.C. (2012). *Adventure therapy, theory, research and practice*.

 Routledge.
- Gillis, H. L. (1995). If I conduct outdoor pursuits with clinical populations, am I an adventure therapist? *Journal of Leisurability*, 22.
- Gillis, H.L.L. & Ringer, M.T. (1999). Adventure as Therapy. In: Miles, J. C & Priest, S. (Eds.), *Adventure programming*. Venture Publishing.
- Goldberger, T.S., & Waters, D.M. (2000). The benefits of wilderness experience for mental health: An exploratory study on nature-based therapies. *Theses Digitization Project*, 1648.
- Government of Canada (2006). *The human face of mental health and mental illness in Canada*.

 Ottawa: Minister of Public Works and Government Services Canada.
- Greenleaf, A. T., Bryant, R. M., & Pollock, J. B. (2013). 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-
- Hansen, M.M., Jones, R., & Tocchini, K. (2017). Shinrin-Yoku (Forest Bathing) and nature therapy: A state-of-the-art review. *International Journal of Environmental Research and Public Health*, 14, 1-48.
- Harper, N.J. (2017). Wilderness therapy, therapeutic camping and adventure education in child and youth care literature: A scoping review. *Children and Youth Services Review*, 83, 68-79.
- Harper, N.J., Gabrielsen, L.E., & Carpenter, C. (2018). A cross-cultural exploration of 'wild' in wilderness therapy: Canada, Norway and Australia. *Journal of Adventure Education and Outdoor Learning*, 18(2), 148-164.
- Harper, N., Rose, K., Segal, D. (2019). *Nature-based therapy: A practitioner's guide to working outdoors with children, youth and families.* New Society Publishers.
- Hart, J. (2016). Prescribing nature therapy for improved mental health. *Alternative* and Complementary Therapies, 22(4), 161-163.
- Hayes, S.C., Strosahl, K.D., Bunting, K., Twohig, M., & Wilson, K.G. (2004). What is acceptance and commitment therapy? In S.C. Hayes & K.D. Strosahl (Eds.), *A practical guide to acceptance and commitment therapy* (pp. 1-31). Springer.
- Hee Oh, K., Shin, W.S., Khil, T.G., & Kim, D.J. (2020). Six step model of nature-based therapy process. *International Journal of Environmental Research and Public Health*, 17, 685.
- Hill, N. (2007). Wilderness therapy as a treatment modality for at-risk youth: A primer for mental health counselors. *Journal of Mental Health Counseling*, 29(4), 338-349.

- Hoag, M.J., Massey, K.E., Roberts, S.D., & Logan, P. (2013). Efficacy of wilderness therapy for young adults: A first look. *Residential Treatment for Children & Youth*, 30, 294-305.
- Institute of Integrative Science and Health. (n.d.). *Two-Eyed Seeing*. Retrieved from http://www.integrativescience.ca/Principles/TwoEyedSeeing/
- Johansen, S. G., Wang, C. E. A., Binder, P. E., & Malt, U. F. (2014). Equine-facilitated body and emotion-oriented psychotherapy designed for adolescents and adults not responding to mainstream treatment: A structured program. *Journal of Psychotherapy Integration*, 24, 4, 323-335.
- Kalisch, K. R., Bobilya, A. J., and Daniel, B. (2011). The outward-bound solo: a study of participants' perceptions. *Journal of Experiential Education*, 34, 1-18.

doi:10.1177/105382591103400102

- Kam, M. C. Y., & Siu, A. M. H. (2010). Evaluation of a horticultural activity program for persons with psychiatric illness. *Hong Kong Journal of Occupational Therapy*, 20(2), 80-86.
- Kamitsis, I., & Simmonds, J.G. (2017). Using resources of nature in the counselling room:

 Qualitative research into ecotherapy practice. *International Journal of Adventure*Counselling, 39, 229-248.
- Kaplan, R., & Kaplan, S. (1989). *The Experience of Nature: A Psychological Perspective*.

 Oxford University Press.
- Kaplan, S. (1995). The restorative benefits of nature: Towards an integrative framework. *Journal of Environmental Psychology*, 15(3), 169-182.
- Kaplan, S. (2001). Meditation, restoration and the management of mental fatigue. *Environment and Behavior 33*, 80-506.

- Kim, J.G., Khil, T.G., Lim, Y., Park, K., Shin, M., & Shin, W.S. (2020). The psychological effects of a campus forest therapy program. *International Journal of Environmental Research and Public Health*, 17(3409), 1-11. doi:10.3390/iierph17103409
- King, B., & McIntyre, C.J. (2018). An examination of the shared beliefs of ecotherapists. *Ecopsychology*, 10(2), 117-126.
- Koziol, C., & Buzzell, L. (2017). The birth of the Canadian ecopsychology network. *Ecopsychology*, 9(3), 117-120.
- Lee, J., Park, B.J., Tsunetsugu, Y., Ohira, T., Kagawa, T., & Miyazaki, Y. (2011). Effect of forest bathing on physiological and psychological responses in young Japanese male subjects. *Public Health*, 125, 93-100.
- Louv, R. (2008). Last child in the woods: Saving our children from nature-deficit disorder.

 Algonquin Books of Chapel Hill.
- Mackay, G. J., & Neill, J. T. (2010). The effect of 'green exercise' on state anxiety and the role of exercise duration, intensity, and greenness: A quasi-experimental study.
 Journal of Sport and Exercise, 11, 238-245. doi:10.1016/j.psychsport.2010.01.002
- Maller, C., Townsend, M., Brown, P., & St Leger, L. (2002). The health benefits of contact with nature in a park context: A review of current literature. Melbourne: Deakin University and Parks Victoria.
- McIver, S., Senior, E., & Francis, Z. (2018). Healing fears, conquering challenges: Narrative outcomes from a wilderness therapy program. *Journal of Creativity in Mental Health*, 13(4), 392-404.
- Megged, N. (1998). Gates of hope and gates of fear. Modan: Ben Shemen (Hebrew).

- Mensah, C.A, Anders, L., Perera, U. & Roji, A. (2016). Enhancing quality of life through the lens of green spaces: A systematic review approach. *International Journal of Wellbeing*, 6, 142-163.
- Miles, J. (1987). Wilderness as healing place. *Journal of Experiential Education*, 10, 4-10. http://dx.doi.org/10.1177/105382598701000301
- Miles, J. (1990). Wilderness. In J. Miles & S. Priest (Eds.). *Adventure education* (pp. 325-328). Venture Publishing Incorporated.
- Miller, D. (2012). *Uniting the built & natural environments*. American Society of Landscape Architects.
- Mitchell, A., & Benkendorff, N. (2019). It's good to go outside: A review of nature-based child- centered play therapy. *Australian Counselling Research Journal*, 13(1), 8-13.
- Miyazaki, Y.; Motohashi, Y. (1996). Forest environment and physiological response. In Agishi, Y., Ohtsuka, Y. (Eds.), *New Frontiers in Health Resort Medicine*. (pp. 67-77). Hokkaido School of Medicine Press.
- Naor, L., & Mayseless, O. (2020a). The art of working with nature in nature-based therapies.

 *Journal of Experiential Education, 1-19.
- Naor, L., & Mayseless, O. (2020b). The wilderness solo experience: A unique practice of silence and solitude for personal growth. *Frontiers in Psychology*, 11, 1-15.
- Nash, R. F. (1967). Wilderness and the American mind. Hartford, CT: Yale University Press.
- Nature. (2020, December 31). In Wikipedia. https://en.wikipedia.org/wiki/Nature
- Nebbe, L.L. (1991). *Nature as a guide: Using nature in counselling, therapy and education*. Educational Media Corporation.
- Norton, C. L., Tucker, A., Russell, K. C., Bettmann, J. E., Gass, M. A., Gillis, H. L., & Behrens,

- E. (2014). Adventure therapy with youth. *Journal of Experiential Education*, *37*(1), 46-59. doi:10.1177/1053825913518895
- Paris, J. (2013). How the history of psychotherapy interferes with integration. *Journal* of *Psychotherapy Integration*, 23, 99-106.
- Parshal, D. P. (2003). Research and reflection: Animal-assisted therapy in mental health settings.

 *Counseling and Values, 48, 47-56. doi:10.1002/i.2161-007X.2003.tb00274.x
- Pasch, K. E., Velazquez, C. E., Cance, J., Moe, S. G., & Lytle, L. A. (2012). Youth substance use and body composition: Does risk in one area predict risk in the other?

 **Journal of Youth and Adolescence, 41, 14-26.
- Pine River Institute: Our Program. (2019). Retrieved from: http://pineriverinstitute.com/our-program.
- Pretty, J., Peacock, J., Sellens, M., & Griffin, M. (2005). The mental and physical health outcomes of green exercise. *International Journal of Environment Health*Research, 15(5), 319-337. doi:10.1080/09603120500155963
- Pryor, A., Carpenter, C., & Townsend, M. (2005). Outdoor education and bush adventure therapy: A socio-ecological approach to health and wellbeing. *Australian Journal of Outdoor Education*, 9(1), 3-13.
- Radu, I. (2018). Land for Healing: Developing a First Nations Land-based Service

 Delivery Model. Ontario: Thunderbird Partnership Foundation.
- Radu, I., House, L.M., & Pashagumskum, E. (2014). Land, life, and knowledge in Chisasibi: Intergenerational healing in the bush. *Decolonization: Indigeneity, Education & Society*, 3(3), 86-105.
- Raphael, B., & Martinek, N. (1996). Psychosocial wellbeing and mental health into the 21st

- Century. In Furnass, B., Whyte, J., Harris, J., & Baker, A. (Eds.), *Survival, Health and Wellbeing into the Twenty First Century* (pp. 31-46). Proceedings of a Conference Held at The Australian National University, November-December 1995. Canberra: Nature & Society Forum.
- Reese, R.F. (2016). EcoWellness and guiding principles for the ethical integration of nature into counseling. *International Journal for the Advancement of Counselling*, 38, 345-357.

 doi:10.1007/s10447-016-9276-5
- Reese, R.F., Hadeed, S., Craig, H., Beyer, A., & Gosling, M. (2019). EcoWellness: integrating the natural world into wilderness therapy settings with intentionality, *Journal of Adventure Education and Outdoor Learning*, 19(3), 202-215,

doi:10.1080/14729679.2018.1508357

- Revell, S., & McLeod, J. (2016). Experiences of therapists who integrate walk and talk into their professional practice. *Counseling and Psychotherapy Research*, 16(1), 35-43.
- Revell, S., & Mcleod, J. (2017). Therapists' experience of walk and talk therapy: A descriptive phenomenological study. *European Journal of Psychotherapy & Counselling, 19*(3), 267-289. doi:10.1080/13642537.2017.1348377
- Richards, K. (2016). Developing therapeutic outdoor practice. In Humberstone, B., Prince, H. And Henderson, K. A. Karla. (Eds.), *A Routledge International Handbook of Outdoor Studies*. Routledge.
- Riihimaki, M. (2019). Practitioners views on Nordic outdoor-based therapy: Practices and experiences. *Master thesis in Department of Norwegian School of Sport Sciences*.
- Roemer, L., & Orsillo, S.M. (2009). Mindfulness & acceptance-based behavioural therapies in practice. Guilford Press.

- Russell, K. C. (2001.) What is wilderness therapy? *Journal of Experiential Education, 24*(2), 70-79.
- Sackett, C.R. (2010). Ecotherapy: A counter to society's unhealthy trend? *Journal of Creativity in Mental Health*, 5, 134-141.
- Sahlin, E., Matuszczyk, J.V., Ahlborg, G. Jr., & Grahn, P. (2012). How do participants in nature- based therapy experience and evaluable their rehabilitation? *Journal of Therapeutic Horticulture*, 22(1), 9-22.
- Santrock, J. W. (1995). Life-span development. Brown & Benchmark.
- Sarris, J., Manincor, M., Hargraves, F., & Tsonis, J. (2019). Harnessing the four elements for mental health. *Frontiers in Psychiatry*, 10, 1-9.
- Selhub, E.M., & Logan, A.C. (2012). Your Brain on Nature: The Science of Nature's Influence on Your Health, Happiness, and Vitality. Wiley.
- Sherwood, P. (2013). *Emotional literacy for adolescent mental health: Experiential counselling*.

 ACER Press.
- Shanahan, D. F., Bush, R., Gaston, K. J., Lin, B. B., Dean, J., Barber, E., & Fuller, R. A. (2016).

 Health benefits from nature experiences depend on dose. *Scientific Reports*, 6(1), 28551.

 https://doi.org/10.1038/srep28551
- Song, C., Ikei, H., & Miyazaki, Y. (2016). Physiological effects of nature therapy: A review of the research in Japan. *International Journal of Environmental Research and Public Health*, 13, 781.
- Srivastava, K. (2009). Urbanization and Mental health. *Industrial Psychiatry Journal*, 18, 75.
- Stevenson, C. (2012). Instructor Deer Manual. CAN Adventure Education Ltd.
- Stevenson, C. (2012). Instructor Mouse Manual. CAN Adventure Education Ltd.

- Stigsdotter, U. K., Palsdotter, A. M., Burls, A., Chermaz, A., Ferrini, F., & Grahn, P. (2011).
 Nature-based therapeutic interventions. In Nilsson, K., Sangster, M., Gallis, C., Hartig,
 T., Vries, S., Seeland, K., & Schipperijn, J. (Eds.), Forests, trees and human health
 (pp. 309-343). Springer.
- Stigsdotter, U.K., Corazon, S.S., Sidenius, U., Nyed, P.K., Larsen, H.B., & Fjorback, L.O. (2018). Efficacy of nature-based therapy for individuals with stress-related illnesses: Randomized controlled trial. *The British Journal of Psychiatry*, 213, 404-411.
- Strauss, R. S., Rodzilsky, D., Burack, G., & Colin, M. (2001). Psychosocial correlates of physical activity in healthy children. *Archives of Pediatric and Adolescent Medicine*, 155, 897-902.
- Summers, J.K., & Vivian, D.N. (2018). Ecotherapy- A forgotten ecosystem service: A review. Frontiers in Psychology, 9, 1-13.
- Sundaram, L. (2014). Let's take it outside- Nature as a dynamic partner in the therapeutic relationship. *Counselling and Spirituality*, *33*(1), 51-69.
- Swank, J.M., & Shin, S.M. (2015). Nature-based child-centered play therapy: An innovative counseling approach. *International Journal of Play Therapy*, 24(3), 151-161.
- Tsunetsugu, Y.; Park, B.; & Miyazaki, Y. (2010). Trends in research related to "Shinrin-yoku" (taking in the forest atmosphere or forest bathing) in Japan. *Environmental Health Prevention Medicine*, 15, 27-37.
- Tucker, A., Norton, C.L., DeMille, S.M., Hobson, J. (2016). The impact of wilderness therapy: Utilizing an integrated care approach. *Journal of Experiential Education*, 39(1), 15-30.

- Vujcic, M., Tomicevic-Dubljevic, J., Grbic, M., Lecic-Tosevski, D., Vukovic, O., & Toskovic,
 O. (2017). Nature based solution for improving mental health and well-being in
 urban areas. *Environmental Research*, 158, 385-392.
- Waldram, J.B. (2013) Transformative and Restorative Processes: Revisiting the Question of Efficacy of Indigenous Healing, *Medical Anthropology: Cross-Cultural Studies in Health and Illness*, 32(3), 191-207.
- Weaver, S. (2015). Nature-based therapeutic service: The power of love in helping and healing. *Journal of Sustainability Education*, 9, 1-14.
- Wilson, E. O. (1984). *Biophilia: The human bond with other species*. Cambridge: Harvard University Press.
- Wilson, E.O. (1993). Biophilia and Conservation Ethic. In Kellert, S.R., & Wilson, E.O. (Eds.), *The Biophilia Hypothesis*. (pp. 31-41). Island Press.
- Yalom, I.D. (1985). The theory and practice of group psychotherapy, (3rd ed.). Basic Books.
- Zinker, J. (1977). Creative process in gestalt therapy. Vintage Books.
- Zur, O. (2001). Out-of-Office Experience: When crossing office boundaries and engaging in dual relationships are clinically beneficial and ethically sound. *The Independent Practitioner*, 21(1), 96-100.

Chapter Four: Manual for Northern Nature-Based Therapy

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Introduction

When I think back to my first experience in the outdoors, the memories are vivid and abundant. From a very young age I was privileged to have spent much of my leisure time, in all seasons, in nature. My extensive personal experiences with the outdoors and practice working in the field of wilderness therapy has drawn me to this form of therapy, as I have witnessed the positive changes brought forth in the youth whom I have worked alongside.

As I reflect upon these experiences the following recollection comes to mind. It is a cool night in Temagami, Ontario. All youth were fast asleep in their beds when they were awoken to quickly come outside. It was dark, so the looks on their faces were hidden, but I could hear the excitement in their voices. As we sat down to watch the sight in front of us, their astonishment was reflected in the light show that we were watching. These were youth from all over the world, gathered outside in Northern Ontario in hopes of witnessing some of Canada's natural wonders, and in some small way, grow as human beings. The *aurora borealis* that we witnessed that evening was worth the cold toes, lack of sleep, and grumpy mornings. In that moment, I saw youth experience something bigger than themselves and based on their conversations over the next few days, something that really stuck with them. Perhaps they were unclear about why or how it affected them so deeply, but it certainly did. I truly believe that given the chance, people can, and will realize how interconnected we are with nature; and nature with us. We are nature.

Many of us recognize the healing benefits of nature, even if it is completely unconsciously. How many of us have booked vacations to a quiet place (often on the beach or in the woods), or filled our houses with plants and pets? This connection to nature and its healing and restorative benefits is as old as humanity. Traditional wisdom from Indigenous communities consistently points to nature as a healer.

In the last few years, while living and working on the Gitxsan territory near Terrace, I found that not only was direct and intentional nature-based therapy useful, but just being in the outdoors with the youth seemed to also bring about positive changes in them.

In recent years, there has been more research conducted on nature-based therapy and its benefits to humankind when incorporated into the therapeutic process, particularly for adolescents. There is growing recognition that the physical environment can promote mental health and wellbeing.

The general belief behind this manual is that nature is an ideal setting and partner in the therapeutic process. In the first sections of the manual, the necessary background information is provided, definitions specified, and benefits of nature explored. This is followed by various ideas and activities for both therapies outside, and ways to bring therapy inside are provided.

What do I mean when I say...?

When creating a manual that various people are using, it is vital to make sure that important terms are defined. Nature, according to *Wikipedia* is the natural, physical, material world or the universe. It can refer to life in general, and although humans are part of nature, they are often seen as a separate category from other natural events.

Another word that will be commonly utilized in this manual is the word youth. The term youth will be descriptive of any person between the ages of 10 and 24 years of age and those who are developmentally between childhood and adult age. In addition to this word, adolescent and teenager will be used interchangeably with the word youth.

Nature-based seems to describe the physical location that is chosen, in opposition almost with the inside nature of the office. However, this location is flexible depending on the

client's needs and the goals of the particular session. As mentioned in the book Nature-Based Therapy (Nevin, Rose & Segal, 2019), it is important that the therapy is not simply called nature therapy. This would seem to imply that nature is the one that needs therapy, which is incorrect! Nature instead is a therapist, alongside the facilitator or clinician involved.

Who might benefit from this manual?

This brief section is almost an invitation, an invitation that will be extended to practitioners who are involved in the mental health sector. There are a wide range of professionals who might benefit from the activities included in the manual, but the focus is on the mental health sector. I hope that the manual is an inspiration to take parts of your practice outside or find ways to bring bits of nature inside. I have intended for the manual to be a way to make this practice much more accessible for all practitioners, regardless of experience in nature. It can be read in any direction, with any section read when needed; there is no order necessary to the manual.

Benefits

Nature-guided therapy is known as a "non-verbal expressive therapy" and these therapies often "provide the opportunity for adolescents to develop emotional literacy that is community- based, child centered, family focused and culturally appropriate...." (Sherwood, 2013, p. 3). There is growing recognition, both within the mental health community and outside of it, that the physical environment itself can improve mental health and wellbeing. Another benefit to nature-based therapies is that they might facilitate a potential bridge between Indigenous practices and Western psychology (Kamitsis & Simmonds, 2017). As shown above, research has a fairly strong indication towards nature-based therapies working in benefit for the client, but there is little in terms of specifics. The question "how does it work"

still needs to be answered. The author does not believe that they have all the answers. I can offer suggestions, as well as activities that have worked for me or other practitioners, but an exact answer is currently unknown to me, and I believe to the world.

Evaluation

As anyone who works with people in the mental health capacity can tell you, efficacy is extremely hard to measure in a quantitative way for these types of programs. However, qualitative data can provide a different and informative perspective on the effects of various forms of therapy.

Things to be watchful of

Nature-based therapists, similarly to most therapists that strongly believe in one theory over another, can become entrenched in believing that everyone can be "fixed" or "helped" with our preference of theory. Human change is never reductionist. It is generally never one event, one process or one therapeutic theory that creates change in a person. Although I believe wholeheartedly in the benefits of incorporating more nature into one's practice, I also recognize that this is not for everyone. It will not fit every client in exactly the same way. In addition to this, ethics and boundaries need to be closely monitored in nature-based therapy practices.

Questions to ask oneself

In *Nature-Based Therapy*, there are a list of useful questions for practitioners to ask themselves before and during a nature-based therapy practice. I found this extremely useful and have adapted the list of questions to fit my audience: The Northern based practitioners of British Columbia, particularly those that work in remote areas. These questions are important to ask oneself because of the self-reflective nature of the process. As with most processes in therapeutic practice, it is integral to the practice to be reflective on how/why things worked,

didn't work and how to be constantly improving. If one is serious about providing effective, non-harmful care, then these questions will allow you as the practitioner to see whether or not nature-based therapies fit your clients (or some of them).

Practice Concerns

- Will you be running group or individual programs?
- Is there a way that you can share costs for insurance/equipment?
- What is your scope of practice?
- What is your current level of knowledge of the local fauna and flora in your area?
- Are you working with a team or individually? If you are working alone would it make sense to pair with another professional in your community?
- Do you know about the traditional lands and Indigenous peoples of your area?

 How can you start/continue to establish relationships between all peoples?
- How do you maintain your own relationship to the natural world? What aspects do you want to learn more about?
- Are there any people in your community that can become collaborative partners in outdoor or adventure programming? This can be especially helpful if you want to include specialized activities such as rock climbing or kayaking into your programs.
- What public parks and places are you planning/able to work in with your clients?

 Have you received access/permission to be there?
- How busy are these areas? When are they most populated? Are there dogs? Wild animals? Are there any other hazards?
 - Are fires allowed there?
 - Are there shelters if there is sudden or extreme weather changes?

- Sometimes, the weather makes outdoor work impossible. Do you have an indoor space if this ends up being the case?
- Community connections are particularly important. Do you have connections or how can you create these connections?
- Are there connections you have to community elders? Is this something that you can work towards?
- Are there any outdoor adventure companies in your community? Can they help by providing free gear for the clients?
 - Do you have any access to gardens?

Personal Concerns

- Do you have any daily practices that help you connect to the outdoor world?
- If you are feeling uncomfortable about bringing your practice outdoors, what is the cause of this feeling?
- What is the intention of this practice; why do you think it will work with your particular client(s)?
 - Do you believe in the value of nature yourself?
 - What activities will be included in your practice?
- What if the client will not partake in the activity you have planned? Do you have a backup plan?
 - Do you know the activity well enough to ensure safety and understanding?
 - Are there meaning-making possibilities for the client within the activity?
 - Is the individual ready for the activity? Why are you choosing this particular activity?

Ethical Concerns

- Do you have any training with youth/children in the outdoors?
- Do you (or someone on your team) have certifications in wilderness first aid?
- Have you studied ecopsychology, outdoor education or another related field?
- Are you registered with a body of professionals (e.g., counselors, psychologists, social workers etc.)?
- Do you receive weekly supervision? What are the opportunities for you as a practitioner to receive adequate supervision as a nature-based therapist?

Ways to incorporate nature into "indoor" counselling

This section is important because of the potential to feel uncomfortable about taking a therapeutic practice outdoors, and rightly so! If one is feeling uncomfortable, please refer below for opportunities to still bring nature into your therapy sessions.

Overview of Indoor Counseling Ideas

Name	Group Size	Materials
Feeling Objects	Individual or group	15-20 objects from outside (examples below)
Plants, Inside Edition	Individual	Clinician's choice. Indoor plants, fake plants, small fountains (water sounds) and/or pictures of nature scenes.
Nature take home	Individual	None, dependent on assignment
Nature guided intake	Individual	None

Name	Feeling Objects
Material needed	Basket of 15-20 objects from outside. Examples include feathers, rocks, grass, various plants (make sure that you are not destroying the live plant when you take your portion) and shells.
Season	Can be adapted for any season (occurs inside)
Description	Once objects have been collected there is a variety of ways that a practitioner can include this in their practice. The first is more intentional: asking the client to choose an object that represents how they are feeling today (or about a specific event happened). This object could be used to frame a much wider conversation with the client. The second way that this could be utilized is a more passive approach. The clinician might just allow the client to gravitate towards the objects naturally. If they ask about them, or choose one, this could be an opening for a similar conversation as outlined in the first approach. The conversation surrounding these objects can lead in any number of different ways: Discuss what you notice about the object in particular (touch, smell, maybe taste and how it makes the client feel), and in turn, if they know why they chose it. Which object were you in the past and which one would you like to be in the future?
Reason for incorporating this activity	It is my belief that externalizing feelings often makes feelings safer and more accessible for youth (and adults alike!) This practice also gives the client something tangible to hold in their hands, something to ground them as they speak.

Name	Plants, Inside Edition
Material needed	Clinician's choice. Indoor plants, fake plants, small fountains (water sounds) and/or pictures of nature scenes. Natural light may also provide a similar effect.
Season	Can be adapted for any season (occurs inside)
Description	This is often a passive activity. When a clinician is setting up their office, they can choose to include various natural elements inside of it. Once the setting is created, the practitioner is then leaving the door wide open for metaphors and various conversations to be started from the objects in his/her room. These conversations/metaphors can often include the plant's longevity, how to take care of them and the grief surrounding their death.
Reason for incorporating this activity	There are thoughts surrounding the idea that even pictures of nature in a therapist's office can improve well-being of both the practitioner and the client. In addition to this, metaphors surrounding the plants can lead to more

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safety when	speaking ab	out sensitive	topics	in session.	

Name	Nature take home assignments
Material needed	Dependent on the assignment. Most involve no material, just a willingness to go outside from the client.
Season	Can be adapted for any season
Description	If exploring and going on walks together is not an option for any reason, it can also be given as homework. Practitioners can suggest going outside as part of their treatment, even framing it as simply going outside for a walk. The following session the practitioner can be curious about the activity and what worked or didn't for the client. Was it beneficial at all? Did it feel comfortable? What was the frequency of the outdoor activity- does the client feel that increasing or decreasing the frequency would be helpful?
Reason for incorporating this activity	Recently, Louv (2008) has shown that even being outside in nature is positive for humans; therefore, this nature homework is one that can add positive feelings and encourage connection to the outside world. In addition to this, if a practitioner is uncomfortable taking their therapeutic practice outside, nature homework is an interesting and beneficial way to allow clients to still experience nature in a therapeutic way. Furthermore, nature homework can be a way of extending the client's therapeutic experience beyond the session and into the rest of their week.

Name	Nature guided intake process
Material needed	None
Season	Can be adapted for any season (occurs inside)
Description	During the intake process, depending on what this looks like for your agency or your practice, nature-based questions can be added, such as: - What is your relationship with nature? - When you are outside, what sort of experience is it for you? - Are nature-based activities something that is of interest for you?
Reason for incorporating this activity	Regardless of whether or not the practitioner intends to include any nature-based practice in their work with the client, these questions are interesting ones to consider. It might even open other avenues for the conversation to go, particularly if there is something that draws or repels a client about nature. Finally, these questions might just "plant a seed" in the client's brain to consider nature as a place that can aid them in their journey.

Outdoor Activities

Notes: Although these activities are split into seasons, most of them can be slightly modified to fit within any time of year. As well, this is NOT an exhaustive list, and activities or ways to bring your practice outside, can be found in the additional resources located at the end of the manual. In addition, if a client does not want to be blindfolded at any time, they can instead simply close their eyes.

Overview of Outdoor Counseling Ideas

Name	Group Size	Season	Materials
Sit Spot	Individual	Spring	None
Greet a Tree	Individual or partners	Spring	Blindfolds, treed area
Beauty Seeker	Individual	Spring	Pencil, paper
Finding Yourself Outdoors	Individual	Spring	None
Different Way Home	Individual	Summer	None
Building a Safe Place in Nature	Group	Summer	None (art materials can be an addition)
Sit, watch and wonder	Individual	Autumn	None
Sensory Experience	Individual or group	Autumn	None
Trust Fall Sequence	Group	Autumn	None
Awareness Triggers Homework	Individual	Winter	None
Communication Perspectives	Individual or group	Winter	One piece of paper per client/practitioner
Snow Cave	Group	Winter	Long piece of rope or webbing

Spring

Name	Sit Spot
Material needed	None, other than something to sit on if the ground is damp or wet.
Description	Client will find a spot in the green environment that you (practitioner) and the client have chosen together. This spot can be anywhere comfortable for the client. Often people are drawn to places that have a good spot to sit, as well as a good view, but it is entirely up to the client's discretion, as long as it is safe. Each session clients spend a designated amount of time there alone. This time can be anywhere between 1-10 minutes, depending on comfort level of client and length of therapy session. When the client returns from the spot, the therapist can prompt questions around what was on their mind, or what they noticed while sitting still. These open-ended questions can allow the session to begin based on something concrete, which is sometimes easier for clients.
Reason for incorporating this activity	There is literature that states that even simply "being" in nature can provide benefits for people and it allows us to move into the present moment and focus on being aware of our senses and our environment (Brazier, 2009). Using a sit spot regularly can encourage clients to come into the here-and-now organically. This can also allow practitioners to use metaphors from what the client noticed during their sit spot.

Name	Greet a Tree
Material needed	Blindfolds, outside space with trees
Description	The details surrounding the process of this activity will depend on whether or not the activity is being completed in a group or individually, as well as what the relationship between practitioner and client is. It is strongly suggested that if the practitioner and client are the only two completing the activity, that there are no blindfolds, and instead just closed eyes. The client will close their eyes (or blindfolded if in partners/group), and the practitioner (or partner) will lead the client to a tree. The client will then examine the tree with their senses other than their eyes. What does it feel like? Rough or smooth bark? Are there cones or leaves? What does it smell like? Once the participant is convinced, they know what "their" tree feels like, they are led away (still with their eyes covered). Once eyes are uncovered, they must try to re-find their tree. After the activity is completed, debrief. Some examples of questions include:
	What was it like to have your eyes closed/blindfolded?Did your partner/practitioner take care of you? What was that like for you?
	 Were you able to find your tree again? Was it harder or easier than you thought it would be?

- How do you feel now?

Reason for incorporating this activity

This activity is an easy, wonderful way to increase a client's connection to their senses, as well as helping them realize how much they rely on sight. This activity can also lead to a heightened sense of trust in the practitioner. Depending on the situation/relationship, the client can also lead to practitioner to a tree.

Name Beauty Seeker Material Pencil, paper, outdoor space, or objects from outside needed Description (Practitioner can take part in the activity as well). Client can choose any object from the natural world, such as a plant, rock, part of soil, or piece of wood. Examine it for 10 minutes. Client can draw the object if they would like. If they choose to draw, it is useful to draw the object without looking at their paper -really taking in all the details of the object. Then, answering the following questions with client: What is beautiful about your object? Is it easy or hard to believe that this is the ONLY object of its kind in the world? - Is there something that you could do to your object to make it more beautiful? If you spent one more minute with your object, can you find it any more beautiful? Do you believe that beauty is in the eye of the beholder? Reason for There are many benefits to this activity. The client has an opportunity to try incorporating to find beauty in something so ordinary, and debriefing can lead to this activity discussion surrounding how this can be applied to their life. In addition, this activity allows the client to find beauty in the outside world.

Name	Finding Yourself Outdoors
Material needed	None
Description	Client and practitioner can go into nature, and both (Or just the client) can find something that represents them in nature. Stress that this object does not have to represent them for all eternity, that it could be just for right now. If possible, bring it back, but if it is something living, perhaps draw an image of it. The client could also bring back a "verbal account" of what the object was. Debrief what the object represented for the client and what they saw of themselves in the object at that time. If at all appropriate, the objects should be returned to where they came from in nature when the activity is finished.
Reason for incorporating this activity	This activity can help clients and practitioners become more aware of their surroundings and consider what the client thinks is important to share about themselves.

Summer

Name	Different Way Home
Material needed	None
Description	Whether it be in a car, a bike, or by foot, we tend to travel the same paths every day. This activity is a challenge to try to take a different route home from the therapy session location. The details surrounding this will depend on the particular client, but the idea is to try something new. If parts of the journey cannot be changed (for example, on a bus), then try to encourage the client to walk a different route from the bus stop to their home, even if it takes a bit longer. It can even be as simple as leaving through the backdoor instead of the front. Next session debrief: What was it like to try out a different route? Was it difficult or easy to try this out? Would you do it again? Why or why not? How might this relate to life? How can we break patterns in our life?
Reason for incorporating this activity	A simple exercise that can have large metaphorical connections surrounding patterns in our lives. There can be a powerful conversation following this activity about dangerous versus safe patterns, and ways that we can try to break the patterns in our lives.

Name	Building a Safe Place in Nature
Material needed	Most of the materials needed to build the home can be found in nature, practitioners can choose whether or not to bring along different art supplies to add to the home.
Description	Client (or group) and practitioner go to the area outside that the practitioner has already designated as the "space" they will stay within. Client(s) are presented with the challenge of creating a place that they would feel comfortable living in. They are welcome to build a shelter with the natural materials around. When the client(s) are finished creating a space they feel comfortable in, it is important to debrief. - What makes this space feel safe to you? How are you physically, emotionally safe? - What are you trying to stay "safe" from? - What are the differences/similarities between your home and this natural home?
Reason for incorporating this activity	Clients often feel very uncomfortable in the natural elements (rain, snow etc.) and will build a roof/walls to protect themselves from those things. It is an interesting activity to draw attention to what makes people feel safe physically and also emotionally. It is another activity that can create strong metaphorical connections in client's minds about the natural world and how it can be a safe space for them.

Autumn

Name	Sit, watch and wonder
Material needed	None
Description	Client and practitioner will walk to a nearby park or public space and find somewhere to sit down where they can see people. Where they choose to sit is up to the pair. There has to be a good view of people but depending on the size of the city they are in; they might also want to be not in plain view for confidentiality reasons. When they find a good space to sit, this activity is simply about observing. When heading back to the office, the two can debrief: what did they each notice? What stood out to them about how people walked? Were there any surprises to them? Why?
Reason for incorporating this activity	This activity really aims to bring to the client's awareness to the power of observation. With that awareness, connections can be made to the client's everyday life-where just observing, and not creating a verbal dialogue immediately might be helpful.

Name	Sensory Experience
Material needed	None. If practitioner wishes to add more "taste" experience, different foods to add can be brought in. There needs to be particular attention paid to allergies in that case.
Description	Client and practitioner will head out into nature. Once they find a spot, they are both comfortable sitting in, they will settle onto the ground. The practitioner will explore questions surrounding the five (or six!) senses with the client. For example: What are some smells your nose is experiencing? What are some things you can touch? How do you feel right now? What is it like to just be in nature, experiencing it, and not "doing" anything?
Reason for incorporating this activity	There is often power in sitting in nature, exploring the here and now, instead of rushing around like we often do in our day-to-day life. This activity really allows us to explore the right now experience to the fullest.

Name	Trust Fall Sequence
Material needed	None
Description	To begin, explore questions surrounding trust with the group: What is trust? Do you trust people easily? How does that serve you? Is it

important for us to have people that we trust?

- Trust lean: In the whole group, get into a spotting position (one foot forward, knees bent, eyes up, hands up in front of you), and one person goes into the center of the group. The person in the center then crosses their hands over their chest and leans into someone, and they will get passed around the group (the person's feet never leave the ground). People must be respectful and gentle with person in the center. Take turns. Debrief: what went well? Was it easy to trust? Are we ready to trust each other to go to the next step?
 - Partner lean: Similar to trust lean, but just with a partner. One person will be in the spotting position; the other person will face away. The person facing away will then cross their arms over their chest, feet firmly planted and legs stiff, and will lean back into the partner's hands.
 - Trust fall (must be done in a group): * Counselors: ONLY complete if you trust your group* One person stands on a platform (about picnic table height). The other members of the group line up in two lines behind the person, as if they are about to catch them. These people then need to be in spotting position. The person on the platform must remain stiff and fall back into the people's arms behind them. This should only be done by members of the group that you can trust to take it seriously. Debrief with similar questions to the group lean.

Reason for incorporating this activity

Trust is a valuable part of youth's lives, even if they do not realize it. This activity is a very physical and tangible way to explore the feeling of both trusting other people as well as being trusted.

Winter

Name	Awareness Triggers Homework
Material needed	None
Description	This activity can be used as an "in-session" activity or a homework activity. Clients are asked to think about something they hear, see, do or feel several times each day. It needs to be something significant enough that they will notice it when it occurs. When they have decided on something, they can share with you, and/or write it down. Whenever they are "triggered" from now on (this can be something for homework for sure!) they will take three deep breaths and focus on the trigger. It is important to also debrief: - What did you choose as your trigger? Was it hard or easy to choose one? - In terms of noticing the trigger every time in your life, was that easier or harder than you originally imagined? - How might being aware of what is around us be helpful in the wilderness? What about at home?
Reason for incorporating this activity	This is a wonderful activity to work on slowing down and really focusing on the little things in our day-to-day life. This activity also leads to more awareness of nature, which is known to be an important aspect of well-being.

Name	Communication Perspectives
Material needed	One piece of paper per client/practitioner
Description	If this activity is being completed with just one client, the practitioner might need to participate as well. Give your client these instructions: - Close their eyes - Fold their paper in half - Tear a tiny semi-circle off of the left-hand corner - Fold their paper in half again - Tear a tiny semi-circle off in the middle of the bottom half - Fold the paper in half again - Tear a tiny semi-circle off of the bottom left and top right corners Debrief. What do you notice about your paper when compared to others? If the instructions were clear, why was no one's paper the same? What could the practitioner have done to better communicate their instructions? What might affect the way that we perceive what others are saying to us? How can we apply this to our lives?
Reason for	This activity allows clients to realize that everyone understands and

incorporating this	interprets what they hear differently. In addition, this activity, depending
activity	on the debrief, can help clients to understand obstacles in effective
	communication.

Name	Snow Cave
Material needed	A long rope or webbing
Description	Before clients even arrive tie a rope around a small group of trees so that the rope creates a complete circle. Blindfold participants and walk them to the maze and put one hand of each person on the rope. Their goal is to find the end. They will know for sure when they have reached the end. Remind them that if they need help, they can ask for it. When people eventually ask for help, whisper in their ear that they have reached the end. When everyone has asked for help, or about 20 minutes have elapsed, call everyone together and debrief. - How did this make you feel? - Was it easy or hard to ask for help? Are there things that make it easier or harder to ask for what you need? - Is it alright sometimes to not ask for help? - What can happen if you don't ask for help? - Is there anything going on in your life that you could use help with? - Who is safe to ask for help?
Reason for incorporating this activity	This activity is a wonderful, frustrating activity that allows clients to think outside the norm and think in metaphors. It is NOT an activity to be taken literally. It may evoke powerful feelings.

As one can see, these activities can help a therapist address a variety of topics. In particular, these activities work with metaphors, and exploring topics (for example, asking for help or being vulnerable) with hands-on activities. It is important to keep in mind that a warm-up activity is often necessary before beginning. An example of a warm-up activity could be as simple as having a previous therapeutic relationship or becoming familiar with a piece of the client's story.

Ultimately, it is meeting your client where they are at.

The majority of these activities, unless mentioned otherwise, are adapted from:

Stevenson, C. (2012). *Instructor Deer Manual*. CAN Adventure Education Ltd. Stevenson, C. (2012). *Instructor Mouse Manual*. CAN Adventure Education Ltd.

Additional Resources

- School of Lost Borders: Resources. (2021). School of Lost Borders. Retrieved March 17, 2021, from https://schooloflostborders.org/resources
- Cain, J., & Smith, T.E. (2006). *The revised and expanded book of raccoon circles*. Kendall Hunt Publishing Company.
- Goodman, J., & Knapp, C.E. (1983). Humanizing outdoor and environmental education: A guide for leading nature and human nature activities. American Camping Association.
- Young, J., Haas, E., McGown, E. (2010). *Coyote's guide to connecting with nature* (2nd ed.). Owlink Media Corporation.
- Human-Nature Counselling Society. (n.d). *About Us.* https://humannaturecounselling.ca/what-we-help-with/