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Rooted In Nature: Weaving Ecotherapy into the Training of Mental Health Therapists

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Abstract

Background: The escalating disconnection between humans and the natural world has catalyzed a rise in psychological distress, specifically climate anxiety and ecological grief. Despite the therapeutic potential of the outdoors, traditional clinical mental health training often neglects the integration of environmental contexts into professional therapist development. This article presents a comprehensive pedagogical framework for a 14-week graduate-level ecotherapy course. The curriculum is designed to bridge the gap between traditional office-based counseling and nature-integrated practice, equipping future clinicians with the competencies required to address modern ecological stressors.

Method: This study utilized a pedagogical action research approach, the manuscript describes an experiential curriculum that synthesizes core theoretical foundations such as Attention Restoration Theory (ART) and the Biophilia Hypothesis with immersive, field-based assignments. A clinical case study is employed to demonstrate the practical application of the "therapist-client-nature" triadic relationship, illustrating how nature serves as a co-therapist in the healing process.

Results: This study's findings suggest that integrating ecotherapy into counselor education fosters significant growth in empathy, professional identity development, and environmental stewardship. The experiential model reduces "nature-deficit" in trainees and enhances their self-efficacy in addressing climate-related distress within diverse clinical populations.

Conclusions: As climate-related mental health challenges become a global priority, ecotherapy must evolve from a specialized elective to a core component of clinical training. This curriculum provides a replicable, evidence-informed model for academic institutions seeking to decolonize therapeutic practices and promote holistic, sustainable well-being.

Keywords: Ecotherapy, therapist identity development, experiential education, clinical application, climate justice, ecopsychology.

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Background

As the global climate crisis intensifies, psychological distress manifesting as climate anxiety and ecological grief is becoming a pervasive clinical reality. While traditional psychotherapy often occurs within the sterilized confines of an indoor office, ecotherapy proposes a 'triadic' therapeutic alliance where the natural world serves as a co-therapist. For example, consider Max, a client who entered therapy in a state of 'eco-paralysis' and suicidal ideation. For Max, traditional talk therapy had felt dismissive of his existential concerns. However, by moving the clinical encounter to a local park, the seasonal cycles of decay and regrowth became living metaphors for his own resilience.

As an ecotherapist, or nature-based therapist, my approach with Max centers around the following goals: understanding and validating Max's feelings and grief around climate change, conceptualizing his issues through the lens of ecopsychology and helping Max gain a better understanding of his distress. Together, we will build a therapeutic relationship with the assistance of nature, which becomes co-therapist in the process. Our work will explore his personal relationship with the natural world as well as ways that Max can nurture that relationship into something reciprocal, giving back to nature what it provides to Max. This reciprocity also provides a model, giving Max a blueprint for his own health and for how to create and maintain relationships with others. Finally, our work will explore ways of grieving, coping and maintaining a level of stability and sanity in an ever-changing landscape.

The purpose of this article is to provide an overview of the topics of biophilia, ecopsychology, ecotherapy, climate-stress and eco-grief but more importantly, to make a case on why training and understanding of these issues are critical for today's therapists. Therapy that includes the natural world has been called different names including clinical ecopsychology, nature-based counseling, and green counseling, but for consistency, ecotherapy is the term that will be used. This article will then offer ways in which ecotherapy can be integrated into the training of therapists such as by weaving these topics into human development, theory or case conceptualization classes, but also by stand-alone courses and/or continuing education credits. The benefits of such go beyond the help provided to the client, as research is beginning to show that this work simultaneously helps therapists in their own self-care, and helps to encourage sustainable ideas and practices that both directly and indirectly support the health of the planet.

Anthropocentrism, Biophilia and Biophobia

According to interviews with Indigenous elders in Canada, the term 'nature' does not exist on its own (Menzies et al., 2024). Instead, their Indigenous ways of knowing thread humans, land and spirit as reciprocal, interrelated and interconnected. Taking care of the land involves respect, reciprocity and responsibility. Through this lens, nature's resources are considered gifts, not just in terms of sustenance but also by providing moments for self-reflection and discovery (Danto et al., 2022). Many Indigenous cultures of North America instill the importance of land-based knowledge and tradition to the future generation, to care for the natural world as family (Redvers, 2020). An ancient Haudenosaunee (Iroquois) philosophy, the Seventh Generation Principle states that "the decisions we make today should result in a sustainable world seven generations into the future" (Indigenous Corporate Training, Inc., 2020). Celtic ancestral beliefs were deeply rooted in animism, viewing all elements of nature—trees, rivers, mountains, and animals—as possessing a spirit or soul. The Celts saw themselves as an integral part of the natural world rather than separate from it, fostering a deep sense of respect and harmony with the land. This connection was reflected in their sacred groves, seasonal rituals, and sustainable practices, all of which reinforced their reverence for nature (Blackie, 2016). The Celts believed that knowing the land was essential because it was not just a physical place but a living, spiritual presence that sustained and shaped communities. By understanding its cycles, sacred sites, and natural rhythms, one could live in harmony with it, ensuring balance, prosperity, and a deep sense of belonging (ÓhÓgáin, 2006).

The term "nature" in the English language *suggests* the divide of humans and the natural world (Reed et al., 2024). For the purposes of this paper, nature or the natural world will be referenced as non-human even though humans are a part of nature and our relationship with the natural world has long enabled us to survive (Roszak et al., 1995). Yet, with the modernization of food production, water distribution, increased

technology and convenience shopping, the connection and conceptualization humans once had with the natural world has shifted. The definitive separation of humans from the natural world is termed anthropocentrism. From an anthropocentric perspective, other living and non-living things are only valuable if they benefit humans, humans are superior and dominant, and humans should have power and control over natural resources (Davis & Atkins, 2009). The industrialization of the natural world, largely fueled by anthropocentric policies, divides humans and the natural world (Boslaugh, 2016).

Erich Fromm (1973), a German-born psychologist who fled Nazi Germany, used the term *biophilia* to describe a psychological orientation, embedded in our biology, of being drawn to that which is alive. Edward Wilson (1984), a biologist, introduced the *biophilia hypothesis* suggesting that humans associate with the natural world for mental and physical survival. This hypothesis helped inspire the *theory of evolutionary psychology*, which utilizes an evolutionary perspective for this connection. Essentially, humans evolved in natural environments which explains why people seek out, identify with, and yearn to connect with nature. The theory explores the connections of our ancestors to the natural world, and the stronger the connection, the more likelihood of survival. These connections are multifaceted as people relate to animals, plants and landscapes and these connections can trigger feelings of safety, security, awe and contentedness. This theory also identifies the concept of biophobia (White & Heerwagen, 1998). Biophobia, rooted in the evolutionary history of humans is the body's way of assessing the safety of a situation. Our ancestors needed to fear predatory animals, weather patterns and storms, for example, in order to survive. Some of these fears remain hardwired in us today.

Climate Anxiety/ Ecological Grief

In the past few decades, the world has seen an uptick in frightening and deadly natural disasters as a result of climate change. *Environmental despair* refers to the deep psychological and emotional distress individuals experience due to the ongoing environmental crisis, including issues like climate change, biodiversity loss, and ecological degradation. Joanna Macy, a scholar of systems thinking and deep ecology, argues that this despair often stems from feelings of powerlessness, grief, and disconnection from nature (1998). *Climate anxiety* refers to a state of fear, worry and distress regarding potential environmental disasters due to climate change (Clayton, 2020). Climate anxiety can be experienced consciously or subconsciously and even occur in people who haven't experienced a natural disaster. Climate anxiety arises through the witnessing of the loss of species and land through extinction, industrialization and the expansion of human development into green spaces. For some, witnessing these events can trigger feelings and emotions similar to the loss of a loved-one. This concept was labeled ecological grief by Aldo Leopold (1953) and suggests that people who are deeply connected to the natural world and are aware of the environmental degradation are also keenly aware of the losses occurring. Ecological grief is not a concept commonly recognized nor diagnosed among therapists (Cunsolo & Ellis, 2018; Fulmer, Cooperberg & Zhao, 2024). People can experience grief created by loss of landscapes, species and ecosystems; this can occur due to a sudden event, like flooding or wildfire, but also gradually over-time.

Stress Recovery and Attention Restoration Theory

There are two main theories about the influence of the natural world on human psychology. The first, Stress Recovery Theory (SRT) states that interaction with nature increases positive emotions and decreases stress (Ulrich et al., 1991). Ulrich's SRT suggests that nature helps people relax, reduce stress, and feel more positive. The physiological findings suggested that the parasympathetic nervous system is positively influenced by exposure to nature (Ulrich et al., 1991). The second, Kaplan's Attention Restoration Theory (ART) explores how spending time in, or looking at nature helps restore attention (Kaplan et al., 1989). According to ART, spending time in a restorative natural environment reduces stress, improves concentration, enhances cognitive function, and fosters mental renewal (Kaplan, 1995).

Nature and Mental Health

A growing body of literature has emerged describing the influence of the natural world and nature-based therapy on various mental-health related issues such as depression, anxiety, attention and spirituality. Findings demonstrate

that time spent in nature help participants feel calm and centered (Grahn et al., 2021), reduce anxiety and depression (Kotera et al., 2021). In general, exposure to nature provides improvements in wellbeing (Twohig-Bennett & Jones, 2018; Jimenez et al., 2020), with 120 minutes per week in nature being the optimal dose (White et al., 2019). Research has also linked emotional benefits (decreases in anxiety, rumination, and negative thoughts, and safeguarding positive affect) and cognitive benefits (improved working memory) to time spent in nature (Grassini, 2022). Furthermore, the amygdala, the part of the brain that processes emotions, especially fear and anxiety, decreases after a walk in nature (Sudimac et al., 2022). Cortisol levels are also reduced as a result of engagement with nature-based interventions, suggesting a stress-reducing effect (Taylor et al., 2022).

EcoWellness

Clinical instruction often emphasizes wellness, yet traditional models tend to overlook the vital role of nature in well-being. Reese and Myers (2012) noted this gap, arguing that most frameworks ignore the psychological and physical benefits of the human-nature connection. To address this, Reese (2016) introduced the EcoWellness model, which frames nature as essential to emotional balance, personal growth, and life satisfaction. Its core elements include awareness, physical engagement, spiritual connection, and environmental responsibility. EcoWellness offers both a personal and therapeutic lens, helping therapists integrate nature-based practices and to cultivate deeper ecological awareness in their daily lives.

Ecopsychology and Ecotherapy

Ecopsychology emerged in response to climate change and growing disconnection from nature (Roszak et al., 1995). It explores the interdependence between humans and the natural world, highlighting impacts on well-being, identity, and spirituality. Roszak (1995) introduced the idea of an "ecological unconscious"—a deep, innate bond with nature. By awakening this awareness, we can develop an "ecological self," fostering ethical responsibility toward the earth (Buzzell & Chalquist, 2009). Ecotherapy, or applied ecopsychology, promotes healing systemically: humans are an inextricable part of nature, and thus humans and nature heal in reciprocity (Clinebell, 1996). There are various terms for ecotherapy such as clinical-ecopsychology, nature-based counseling, nature informed counseling, or green therapies. For the purposes of this paper, ecotherapy is defined as psychotherapeutic activities facilitated by a licensed therapist, through an ecological lens and intent, in partnership with the natural world, emphasizing the reciprocal relationship between individuals and the natural environment.

Ecotherapy offers a meaningful response to climate dread by helping individuals identify and offer ways to transform feelings of anxiety, grief, and helplessness into d agency. Rather than avoiding distress related to the climate crisis, ecotherapeutic practices invite individuals to process these emotions in direct relationship with the natural world, which can foster resilience and a renewed sense of belonging (Doherty & Clayton, 2011). Engaging with nature through observation, awareness, or stewardship activities can restore a sense of reciprocity and purpose, countering the paralysis often associated with climate anxiety. In this way, ecotherapy not only supports emotional regulation but also cultivates hope and motivates values-driven environmental action (Clayton, 2020; Pihkala, 2020).

Ecotherapists help clients understand their own connection to the natural world and how disconnection from this relationship may lead to psychological distress (Buzzell & Chalquist, 2009; Doherty, 2016; Kahn & Hasbach, 2012). Ecotherapy practice emphasizes the triadic relationship of therapist-client-nature and nature is an invited partner in the healing process. Conceptualizing the triadic relationship of nature-therapist-client conceptually includes not only the client–therapist relationship, but also the client's relational engagement with the natural environment. Drawing from ecopsychology, this can be understood as a triadic alliance in which the non-human world functions as a co-regulator of affect and attention (Bratman et.al., 2019). In this sense, nature is not anthropomorphized, but rather empirically positioned as an influential agent that facilitates physiological grounding, cognitive restoration, and meaning-making thereby strengthening therapeutic outcomes through its impact on the client and therapist alike (Clare & Tudor, 2023).

Ecotherapy practices are varied and can range in specialization and application such as

walk and talk sessions, horticultural therapy, animal assisted therapy and wilderness therapy. Wilderness therapy, also known as adventure-based therapy or outdoor behavioral healthcare, is one of the earliest nature-based modalities, often involving immersive, high-risk outdoor experiences (Gass, 2020). It has been critiqued for using nature as a backdrop rather than fostering connection with it. In contrast, other approaches like walk-and-talk therapy strengthen the client-nature bond and support the therapeutic relationship (Cooley et al., 2020). Horticultural therapy promotes mental well-being, socialization, and stress reduction (Siu et al., 2020; Lu et al., 2023). Shinrin-yoku, or "forest bathing," encourages mindful immersion in natural settings, improving mood, lowering stress and blood pressure, and enhancing clarity (Kotera et al., 2022). Animal-Assisted Therapy (AAT), commonly using dogs or horses, is effective in treating depression and PTSD (Hediger et al., 2021; Marcus, 2013). AAT modalities like equine therapy have shown success with individuals experiencing substance use disorders and PTSD, particularly veterans (Souilm, 2023; Fisher et al., 2021). Many modalities listed require training above and beyond the standard curriculum and can be a complimentary or primary mode of conducting therapy. Certification programs are offered worldwide in many of these modalities.

A recent meta-analysis found that outdoor talk therapy enhances client-nature connection, strengthens the therapeutic relationship, and enriches the overall process (Cooley et al., 2020). Settings ranged from city parks to wilderness areas, with nature serving as either a passive backdrop or an active therapeutic element through techniques like metaphor, narrative, and role-play. Naor and Mayseless (2021) identified key therapeutic factors in nature-based counseling: the environment as a growth-oriented space, challenge as a catalyst for self-expansion, nature's active role in healing, and a sense of interconnectedness. Recent research shows that counseling in nature reduces stress, enhances well-being (van den Berg & Beute, 2021; White et al., 2021), and is comparable to cognitive behavioral therapy for depression (Rueff & Reese, 2023).

Research shows that with nature as a co-therapist, client resistance can be reduced and the therapeutic process enhanced (Delaney & Malinski, 2023; Harper et al., 2021). Counseling in nature offers rich metaphors, fosters meaning-making, and evokes awe and transcendence (Naor & Mayseless, 2021). A strong relationship with nature also supports therapist self-care, and has been found to support physical and psychological well-being (Delaney et al., 2022, 2024). Further research is needed, and exposing students to ecotherapy may inspire just that.

Therapists-in-Training

There is a limited amount of research that explores how incorporating nature as well as the effects of climate-change into clinical education influences the development of therapists-in-training. However preliminary findings suggest that incorporating ecotherapy concepts into therapist education fosters personal growth among students, heightens their awareness of physiological and psychological well-being while enriching both personal and interpersonal development (Clare & Tudor, 2023). Ecotherapy training also deepens a therapist-in-training connection to, and affinity toward, the natural world, as well as develops awareness of the mental and physical effects of climate change (Delaney et al., 2024; Delaney et al., 2022; Duffy et al., 2020). Furthermore, therapists who engage with nature and their communities were more likely to view climate change counseling as a professional responsibility (Delaney et al., 2024; Swank & Reese, 2022). Training in ecotherapy contributes to self-care, personal development, and expanding clincial identities (Delaney et al., 2022). Therapists report, despite interest, being undertrained in ecotherapy modalities and ill-equipped to address the psychological impact of climate change (Reese et al., 2023; Swank & Reese, 2022). These findings highlight the need for expanded educational resources and training.

Integrating Ecotherapy into Curriculum

Ecotherapy can be integrated into curricula in multiple ways. Educators might embed ecotherapy, ecopsychology, and climate stress into core courses such as theory or case conceptualization. Traditional methods like lectures, readings, and discussions ensure accessibility for all students. Early efforts by Davis and Atkins (2004) included a classroom component and a weekend nature retreat, helping students reconnect with nature. Sacco (2002) offered both theoretical and practical approaches for integrating adventure-based counseling,

emphasizing ethics and culture. Roze de Ordons (2024) urge ecotherapy to embrace decolonizing practices, including land rights education and addressing cultural appropriation to foster inclusive, anti-racist, and anti-oppressive pedagogy.

This training module is intentionally adaptable for counselors working in urban environments as well as within marginalized communities with limited access to safe green spaces by emphasizing accessible, low-barrier forms of nature connection. Practices may include engaging with "nearby nature" such as street trees, community gardens, window views, or even symbolic and sensory-based nature experiences, which have been shown to support psychological restoration (Kaplan & Kaplan, 1989). The module also integrates culturally responsive approaches that acknowledge historical inequities in access to land and green space, encouraging trainees to center community-defined meanings of nature and healing (Agyeman et al., 2016). More recent research further highlights that even brief or indirect exposure to urban nature, whether physical or simulated, can improve mental health outcomes, underscoring the importance of flexible and accessible interventions in urban contexts (Wang et al., 2024; Li et al., 2025) By incorporating place-based interventions, this adjusts the work to be inclusive and relevant across diverse environmental and social contexts.

Method

Context and Participants

The insights presented in this paper are grounded in eight years of teaching two graduate-level courses: *Ecotherapy: Counseling and the Natural World* and *Adventure-Based Ecotherapy* within a CACREP-accredited Clinical Mental Health Counseling program. Each course typically enrolls 10 to 15 master's-level counseling students per semester. Students are primarily women in their mid-20s to early 40s, representing diverse cultural, ethnic, and geographic backgrounds, though most are based in the Mid-Atlantic region of the United States. The courses are conducted over a 14-week semester and take place primarily outdoors in varied ecosystems, including university gardens, local beaches, and wooded parks. Integrating ecotherapy into university settings presents systemic challenges, including liability and insurance concerns related to outdoor or nontraditional clinical environments, as well as accreditation standards that may not yet fully recognize or support nature-based modalities. This is important to address and resolve within your own university setting in advance of implementation.

Learning Activities and Assessment Procedures

Both courses emphasize experiential and reflective learning grounded in ecopsychology, EcoWellness (Reese, 2016), and clinical application. Weekly learning activities include walk-and-talk sessions, guided forest immersion (Shinrin-yoku), horticultural therapy, animal-assisted therapy demonstrations, and discussions centered on ethics, client safety, and cultural responsiveness in nature-based practice. Students complete weekly readings and reflective journal entries, an integrative paper connecting theory to practice, and a semester-long Reciprocity Project a self-designed initiative that benefits both the student and the environment (e.g., habitat restoration, community gardening, or advocacy work).

Evaluation procedures prioritize growth and self-reflection over standardized testing. Assessments are based on students' conceptual understanding of ecotherapy principles, their integration of theory into personal and professional identity, ethical awareness, and engagement in ecological reciprocity. The instructor provides ongoing narrative feedback and encourages group dialogue to support collective learning and the co-construction of knowledge.

Data Sources and Reflection

The pedagogical reflections presented are informed by aggregated and de-identified student reflections, course evaluations, and instructor field notes collected between 2017 and 2024. Insights are further supported by the author's previously published qualitative research exploring both counselor and client experiences in ecotherapy (Delaney & Malkinski, 2023; Delaney et al., 2024). Themes emerging from these sources such as ecological identity development, counselor self-care, and the professional integration of ecotherapy principles inform the discussion and recommendations offered in this paper. All examples and reflections are synthesized thematically and presented in composite form to

protect confidentiality and prior research on these courses were approved by Institutional Review Board.

Course Development

The *Ecotherapy: Counseling and the Natural World* and *Adventure-Based Ecotherapy* courses were designed to introduce counseling students to the theoretical foundations and applied practice of ecotherapy through experiential, nature-based learning. Some students join our program specifically for the ecotherapy curriculum, while others, often with little prior nature experience, are introduced to the natural world through my courses. Our location and its resources support our program; however, ecotherapy can be adapted for any setting, including traditional or virtual classrooms. Student feedback has been overwhelmingly positive for these courses. The techniques I share in the following pages reflect my approach to teaching but are by no means fixed. The strength of this work lies in its creativity.

Ecotherapy: Counseling and the Natural World

Ecotherapy: Counseling and the Natural World takes place completely outdoors, and while I am mindful and will change plans in extreme weather, I have students come prepared for regular days of rain or cold temperatures. I accommodate for all abilities as needed. The course description provides details of all activities, locations, and guidance on what to bring and wear. Before class, students are required to sign a university risk and liability form and provide information regarding accommodations, medical considerations, allergies and emergency contact information. I keep this information as well as a first aid kit and other practical needs (sun-screen, bug spray, etc.) with me at all times. Course requirements include weekly readings and reflections as well as assessments, projects and self-reflection. We spend the first two weeks meeting to discuss the theoretical foundation of ecotherapy, EcoWellness and the current research in the field. We also take considerable time to discuss ethical considerations of ecotherapy, unpacking topics of informed consent, confidentiality, therapist and client safety, personal boundaries and liability.

Each week we meet in a different part of our surrounding ecosystems. Being connected to the land begins with loving the place you call home. My aim is for my students to foster a deeper relationship for the natural world right in their backyards and inspire ways they can pass this relationship on to their clients. By deepening our relationship with the land, we cultivate a sense of belonging that inspires us to act with greater care and commitment. A sense of belonging and genuine care fosters emotional well-being and when we feel connected—to a place, to others, and to the earth itself, we are more grounded, more present, and less isolated. In consideration of page limitations, an outline of the syllabus is included:

Curricular Design and Assessment Modalities

The curriculum utilizes an Experiential Learning Theory (ELT) framework, prioritizing the integration of theoretical knowledge with direct environmental engagement. The assessment strategy is designed to foster both clinical competency and reflexive practice through the following modalities:

1. **Reflexive Praxis and Grounded Inquiry:** Beyond standard weekly literature reviews, students engage in "Grounded Journaling." This requires the application of phenomenological observation to their own interactions with natural spaces, bridging the gap between ecological theory and personal experience.
2. **Scholarly Synthesis and Peer Instruction:** To encourage specialized expertise, students perform an independent systematic review of a self-selected ecotherapeutic sub-discipline, presenting a synthesis of current empirical evidence to the cohort.
3. **The Reciprocity Project (Ecological Stewardship):** A cornerstone of the course is a semester-long project rooted in the principle of biopsychosocial-spiritual reciprocity. Students must design and execute an intervention that provides mutual benefit to the practitioner and a specific ecosystem, moving beyond anthropocentric "resource use" toward sustainable environmental stewardship.

Experiential Learning Modules

The weekly modules are structured to provide a comprehensive survey of nature-based interventions, transitioning from theoretical grounding to specialized clinical applications:

1. **Foundational Frameworks:** Analysis of Eco-Wellness models and the integration of ecopsychology into traditional case conceptualization.
2. **Somatosensory Grounding and Forest Medicine:** Implementation of Shinrin-

yoku (Forest Bathing) and "Walk and Talk" protocols, focusing on the physiological impact of phytoncides and sensory immersion on stress regulation.

3. **Horticultural and Gastronomic Interventions:** Exploration of the therapeutic benefits of soil-based microbes (*Mycobacterium vaccae*) and the psychological restoration found in cultivation and plant-based reciprocity.
4. **Blue Mind Theory and Aquatic Environments:** Investigation of the neurological response to "blue spaces," focusing on the capacity of aquatic environments to induce mildly meditative states and emotional regulation.
5. **Zoo-Directed and Equine-Assisted Modalities:** In-field sessions with certified practitioners (e.g., EAGALA model) to observe the role of non-human animals in social-emotional mirroring and trauma-informed care.
6. **Clinical Ethics and Diagnostic Assessment:** Evaluation of the unique ethical challenges of out-of-office practice, including confidentiality in public spaces, physical risk management, and the use of standardized instruments such as the Inclusion of Nature in Self (INS) Scale.
7. **Synthesis and Future Directions:** A critical examination of the future of the field, focusing on the decolonization of nature-based practices and the role of therapists in advocating for climate justice and planetary health.

Pedagogy of Adventure-Based Ecotherapy (ABE)

The ABE curriculum integrates the modalities of Adventure-Based Counseling (ABC) with environmental psychology building upon foundational ecotherapeutic principles. This advanced module is structured as a fully experiential field-lab, requiring trainees to engage in high-threshold physical activities that mirror the psychological demands of clinical practice.

Given the somatic nature of the curriculum, pedagogical adaptations are implemented to ensure inclusive accessibility. This includes individualized risk-management protocols for chronic health conditions (e.g., metabolic or orthopedic considerations) and psychological "challenge-by-choice" frameworks to maintain emotional safety during high-arousal tasks.

Evaluative Modalities and Scholarly Synthesis

The assessment strategy utilizes a multi-method approach to evaluate the integration of field experience and clinical theory:

I. **Systemic Literature Synthesis:** Students conduct an independent systematic review of empirical research within the ABC domain. This requires a critical synthesis of current data which is then presented to the cohort to foster peer-to-peer instructional leadership.

II. **Intervention Design and Theoretical Application:** As a summative assessment, trainees author a scholarly manuscript. This paper must propose an original, evidence-based adventure intervention, supported by peer-reviewed citations and grounded in established frameworks such as Self-Efficacy Theory or Biopsychosocial Resilience Models.

Experiential Intervention Modules

To ensure professional standards and mitigate institutional liability, all technical activities are coordinated through accredited third-party providers. This collaborative model prioritizes socio-ecological sustainability by utilizing locally operated professional organizations.

1. Foundational Group Dynamics and Hiking

The initial phase focuses on Ambulatory Therapy and the establishment of group cohesion. Initial excursions serve as a baseline for assessing cohort dynamics and introducing the Reciprocity Project, a longitudinal stewardship requirement.

2. Low and High-Ropes Challenge Courses

These interventions utilize experiential group-building to address interpersonal trust and collective problem-solving. High-ropes modules specifically target the regulation of autonomic nervous system arousal, providing trainees with a lived experience of managing perceived risk and cognitive appraisal under physiological stress.

3. Surfing Therapy and Blue Mind Theory

Trainees explore the intersection of Blue Space immersion and proprioceptive feedback. This module investigates the capacity of aquatic environments to facilitate "flow states" and

sensory grounding, offering a unique medium for emotional regulation training.

4. Technical Ascents (Rock Climbing)

Rock climbing is utilized as a phenomenological tool to explore the therapeutic alliance. The mechanics of belaying serve as a powerful metaphor for mutual responsibility, safety-holding, and the navigational challenges inherent in the client-therapist dyad.

5. Longitudinal Wilderness Expedition (Canoeing and Primitive Camping)

The curriculum culminates in a three-day intensive wilderness immersion. This "field-lab" allows for the longitudinal observation of group development and the psychological impact of sustained ecological engagement.

I. **Resilience and Hardiness:** By navigating primitive living conditions, trainees develop **ecological identity** and professional hardiness.

II. **Logistical Modeling:** The university-supported logistical framework including technical outfitting and environmental permitting—serves as a replicable model for trainees to understand the professional infrastructure required for remote nature-based clinical practice.

Suggested Books and Recommended Readings (for either or both courses)

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- Williams, F (2018). *The 3-day effect; how nature calms your brain* (audiobook)

Ethics Considerations

Teaching ecotherapy requires careful attention to ethical considerations that extend beyond traditional clinical practice, particularly in relation to client safety, cultural and environmental stewardship. Practitioners must ensure that outdoor interventions are appropriate to clients' physical and psychological capacities, with informed consent that clearly addresses potential risks such as weather exposure, terrain, and emotional responses to natural settings (Jordan & Hinds, 2016). Ethical practice also involves respecting diverse cultural relationships with land, avoiding the appropriation of Indigenous or spiritual traditions without proper context or acknowledgment (Fisher, 2013). Confidentiality presents unique challenges in outdoor or public settings and must be proactively addressed with clients (American Counseling Association [ACA], 2014). Additionally, ecotherapists carry a responsibility to model environmental ethics by minimizing ecological impact and fostering reciprocal, non-exploitative relationships with the natural world (Buzzell & Chalquist, 2009). Integrating these considerations into teaching ensures that future practitioners approach ecotherapy with both clinical integrity and ecological responsibility.

Ecotherapy Activities/Lesson Plan Examples

Below are some suggestions for integrating ecotherapy into mental health clinical training. Before doing so, I recommend educators explore their own ecological self and connection to nature. Numerous organizations around the world offer trainings and continuing education, it is important for the consumer to check the credentials of these organizations.

Human Development

The class will venture outdoors (wooded area or grassy area with vegetation). Each student, individually, using a notebook and pencil, students will do their best to sketch a picture of a plant of their choosing, catching as much of its uniqueness as possible. Students will also write down words or phrases that come to mind as they look at, touch, or smell the plant. Students will then go online before the next class to attempt to find the name of the plant and to figure out its growth / development cycle (what does it need to grow, how long does maturation take, how long does the plant live, what dangers exist for its developmental process, how is it impacted by or how does it impact the environment surrounding it). Discuss your findings with the class and relate the plant's development journey to what you are learning. Are there any metaphors applicable to human development? What is unique and special about this plant's development? What kind of environmental factors might affect this plants development?

Case Conceptualization/Skills

Max and EcoWellness Approach

Presenting Issue: Using the client Max, from the vignette above. Max, a young adult, initially sought therapy in a state of panic and despair, experiencing intense eco-grief and climate anxiety. His distress stemmed from the perceived decline of the natural world and the inaction of society in addressing environmental concerns. Prior therapy experiences left him frustrated, as he felt dismissed when discussing climate change's emotional and existential impact.

Theoretical Framework: This case is conceptualized through EcoWellness (Reese & Myers, 2012), which integrates a person's connection with nature as a vital component of holistic wellness. The model suggests that Max's distress is exacerbated by a lack of reciprocal connection with the natural world and feelings of powerlessness in the face of ecological crisis. Applying Ecopsychology and the Biophilia Hypothesis, the therapeutic process validates Max's grief, helps him reframe his distress, and fosters a restorative relationship with nature.

Therapeutic Goals & Approach: Validation and Psychoeducation: Acknowledge and normalize Max's distress as eco-grief rather than pathology. Introduce EcoWellness dimensions, including nature awareness, physical engagement, and environmental identity. Use nature as a metaphor to explore themes of change, resilience, and adaptation.

Building a Reciprocal Relationship with Nature: Encourage Max to recognize his interconnectedness with the natural world. Explore ways to nurture this relationship through conservation efforts, advocacy, and direct engagement. Shift from seeing nature's decline as solely a loss to fostering hope through action.

Developing Coping Strategies for Climate Anxiety: Introduce mindfulness-based eco-meditations and grounding techniques. Encourage creative expression (writing, art, storytelling) to process grief. Explore community-based activism as a means of empowerment.

Nature as a Co-Therapist: Utilize walking therapy sessions in natural settings to reduce anxiety and promote reflection. Identify symbolic encounters in nature (e.g., seasonal changes, animal behaviors) as therapeutic metaphors. Develop rituals for grieving and renewal based on nature's cycles.

Prompt Questions for Reflection

Eco-Grief & Climate Anxiety:

1. How does Max's distress reflect a deep ecological identity rather than just clinical anxiety?
2. In what ways can validating climate anxiety shift his experience of distress?

Nature as a Therapeutic Space:

1. How does walking in nature contribute to Max's sense of well-being?
2. What role does nature play in the therapeutic alliance between Max and his therapist?

Reciprocity & Healing:

1. How might giving back to nature serve as a healing practice for Max?
2. What are some practical ways he can cultivate a reciprocal relationship with the natural world?

Metaphors & Meaning-Making:

1. What natural symbols or experiences might appear and could be useful metaphors for Max's healing journey?
2. How do seasonal changes reflect the process of grief, adaptation, and renewal?

Empowerment & Action:

1. How can Max balance accepting uncertainty with taking meaningful action?
2. What strengths and values can he draw from his ecological concern to create resilience and hope?

Max's therapy process is an example of how nature-based therapy can transform eco-distress into empowerment. By integrating EcoWellness principles, he develops a healthier, reciprocal relationship with nature, learns to cope with climate anxiety, and finds meaning through action and connection. This case underscores the importance of validating ecological grief and offering therapeutic frameworks that align with the client's lived experience of environmental concern. In a skill class, students can enact different scenarios using this case practicing being both Max and the ecotherapist.

Conclusion

Today Max is in a good place mentally and physically. He reports that while he will always worry for the natural world, he has developed coping techniques into his daily practice to counterbalance the ever-present concern. He has a greater understanding of his connection to the natural world and finds ways to integrate nature into his daily and weekly life in fulfilling ways. He also participates in advocacy efforts and cares for the land in his local community. His connection with other humans has also expanded as he maintains and supports the health, reciprocal relationships. Ecotherapy, like that experience by Max, expands traditional therapeutic models by incorporating the healing power of nature, addressing the growing mental health challenges linked to environmental concerns. As climate anxiety, eco-grief, and disconnection from the natural world become more prevalent, therapists must be equipped with tools to help clients navigate these complex emotions. Integrating ecotherapy into training programs fosters a holistic approach to well-being, emphasizing the reciprocal relationship between humans and nature. Research shows that both practicing therapists and therapists-in-training benefit from ecotherapy pedagogy, deepening their connection with the natural world, expanding their professional identity, and enhancing their self-care practices. By incorporating ecotherapy into therapist education, future practitioners will be better prepared to validate clients' ecological concerns, promote resilience, and guide them toward meaningful engagement with nature as a source of healing and empowerment (Isham et al., 2025). Additionally, widespread ecotherapy training cultivates a broader commitment to environmental stewardship, ensuring that more

individuals become advocates for the health and protection of the planet.

Ethical Consideration

The study was approved by Department of Psychology, Monmouth University, United States. Consent Form was taken before taking data and participants were asked to take voluntary participation.

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Availability of data and materials

The data sets used and analyzed during the current study are available from the corresponding author on reasonable request.

Authors' contributions/Author details

Megan Delaney was responsible for the study's conceptualization, methodology, and overall coordination. She managed the protocol implementation and directed data collection for all participants. She have reviewed and approved the final version of the manuscript for publication.

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