ADDRESSING ECO-ANXIETY IN YOUTH THROUGH NATURE-BASED ART THERAPY

by

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Abstract

This capstone addresses the pressing challenge of eco-anxiety among adolescents, investigating how this emerging form of climate-related distress impacts youth well-being and development. The project explores the potential of a Nature-Based Art Therapy (NBAT) group program to provide emotional support and foster resilience in young people aged experiencing eco-anxiety. The literature review synthesizes research on eco-anxiety and its emotional effects, alongside therapeutic approaches that blend creative expression and engagement with natural environments. It also considers cultural and ecological frameworks that highlight the importance of connection to place and holistic healing. Building on this foundation, the capstone proposes an 8-week NBAT intervention designed to create a safe, supportive space where participants can process complex feelings related to environmental change through art and nature immersion. The study's findings emphasize the value of integrating nature-based, creative modalities within school and community mental health services to better meet the needs of youth experiencing ecological distress. Recommendations underscore the importance of culturally responsive programming and advocate for continued research to evaluate and refine therapeutic strategies that empower young people to navigate the psychological challenges of a changing environment with hope and agency.

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Chapter 1: Introduction

Introduction

In an era marked by rising sea levels, unprecedented wildfires and global ecological instability, a new form of distress is emerging among young people: eco-anxiety. This emotional response, defined by fear, grief and helplessness in the face of environmental degradation, is not only widespread but profoundly disruptive to youth mental health and development (Clayton et al., 2017; Coffey et al., 2021; Galway & Field, 2023). As the youngest generations inherit the consequences of climate change, they are increasingly expressing a deep, existential unease that is both personal and collective (Hickman et al., 2021; Léger-Goodes et al., 2022; Vergunst & Berry, 2021). Terms such as *eco-anxiety*, *climate grief* and *solastalgia* have emerged to describe the psychological burden experienced by young people growing up in a world marked by climate change and uncertainty (Clayton et al., 2017; Cunsolo & Ellis, 2018). For today's youth, climate change is not a distant threat but a lived reality that disrupts their sense of safety.

Yet within this growing crisis lies an opportunity: the healing potential of nature-based art therapy. Rooted in both ecopsychology and principles of art therapy, this approach offers a creative, embodied and relational way for youth to process their ecological distress (Malboeuf-Hurtubise et al., 2021; Wardle, 2025). This capstone explores the roots of eco-anxiety in youth and considers how nature-based art therapy can offer a hopeful and practical path toward emotional resilience and connection in the face of an uncertain future.

Background Information

Across the globe, youth are reporting increased levels of emotional distress related to climate change (Bennett & Friel, 2014; Coffey et al., 2021; Hickman, 2024; Léger-Goodes et al., 2022). Recent statistics underscore the gravity of this issue. A 2021 international survey conducted by Hickman et al. (2021) found that 59 percent of youth aged 16 to 25 reported feeling “very” or “extremely” worried about climate change, with over 45 percent indicating that their eco-anxiety negatively affected their daily lives and functioning. In Canada, similar patterns have emerged. Galway and Field (2023) found that young Canadians experience a diverse range of difficult climate emotions, with at least 56 percent reporting feelings of fear, sadness, anxiety and powerlessness. Moreover, 78 percent noted that climate change is affecting their overall mental health and 37 percent stated that these feelings interfere with their daily functioning. Participants also expressed pessimism about the future, with 39 percent reporting hesitation about having children due to climate change, 73 percent describing the future as frightening and 76 percent feeling that people have failed to care for the planet. Many also reported feelings of betrayal toward governmental responses and expressed the need for greater support within the education system to help them cope with these realities (Galway & Field, 2023; Hickman et al., 2021). Notably, this emotional burden is often carried in isolation. 32 percent of youth do not talk about climate change with others at all, and among those who do, 36 percent feel ignored or dismissed (Galway & Field, 2023). Together, these findings highlight not only the intensity of eco-anxiety among youth, but also the lack of safe, validating spaces to process these emotions. Mental health professionals increasingly recognize these emotional responses, including fear, sadness, grief and powerlessness, as rational reactions to an unstable and unpredictable ecological context that require supportive, youth-centered interventions rather than clinical pathologization (Burke et al., 2018; Galway & Field, 2023; Hickman et al., 2021).

The emotional toll of climate change also carries educational consequences. Youth struggling with eco-anxiety frequently report difficulty concentrating, a diminished sense of purpose and feelings of helplessness that interfere with academic engagement and social connection (Ojala, 2015; Sanson et al., 2018). These internalized struggles are particularly salient in school contexts, where students are often exposed to alarming climate science without being equipped with the emotional tools to process it.

To illustrate, imagine a 13-year-old student, Maya, sitting silently at the edge of her outdoor education class. Her teacher has just concluded a lesson on the declining salmon populations in British Columbia. While her peers collect water samples from a nearby creek, Maya stares into the water, eyes glassy. Later, she tells the school counsellor she feels "guilty for existing" and worries she "won't have a world to grow up in." Maya's story, though fictional, captures a growing emotional reality among adolescents today. Without adequate emotional outlets, many youth are internalizing their fears about climate change in ways that manifest as withdrawal, despair, anxiety and even depression (Burke et al., 2018; Clayton et al., 2017; Cosh et al., 2024; Galway & Field, 2023; Hickman et al., 2021).

This emotional landscape is one I encounter regularly in my own practice. As a middle school teacher in Squamish, British Columbia, I observe how climate-related distress also deeply affects many of my students. At the time of writing, a fast-moving wildfire is burning just kilometers from my home and school, filling the skies with smoke and casting both a literal and figurative haze over our community. This immediate proximity to ecological disruption reinforces the tangible reality of climate change and its emotional impact on young people. Unfortunately, this is a reality that is being felt far beyond my own town. Across Canada, wildfires are actively forcing communities to evacuate and blanketing entire provinces in smoke, making the consequences of environmental change difficult to ignore.

Although schools are increasingly recognizing the importance of social-emotional learning, few have integrated mental health supports that explicitly address climate-related distress (Ojala, 2019; Rousell & Cutter-Mackenzie-Knowles, 2019). Traditional therapeutic approaches may be insufficient for youth who struggle to articulate the complex emotions tied to ecological grief and uncertainty (Wardle, 2025). These realities underscore the importance of exploring alternative interventions, particularly those that are developmentally appropriate, culturally responsive and grounded in connection to self, community and the natural world. Positioned at the intersection of educator and emerging school counsellor, I approach this review with a commitment to understanding how best to support students' emotional well-being as they navigate the realities of an uncertain climate future.

Statement of the Problem

Eco-anxiety among youth is an emerging mental health concern that requires targeted therapeutic interventions (Gulbe et al., 2025; Wardle, 2025). In recent years, the escalating global discourse on climate change and environmental degradation has increasingly permeated public consciousness, particularly among younger generations (Hickman, 2024; Léger-Goodes et al., 2022; Pihkala, 2022; Ojala, 2019; Sanson et al., 2019; Vergunst & Berry, 2021). The palpable threat posed by environmental crises, from rising temperatures and extreme weather events to biodiversity loss and resource depletion, has not only catalyzed urgent calls for collective action but has also sparked profound psychological responses among individuals worldwide (Hayes et al., 2021; Hickman, 2022; Léger-Goodes et al., 2022; Pihkala, 2022). At the forefront of these responses is a phenomenon increasingly recognized and referred to as, eco-anxiety (Clayton et al., 2017; Hickman, 2024; Léger-Goodes et al., 2022; Pihkala, 2022).

Eco-anxiety refers to the distress and anxiety individuals experience in response to perceived or actual environmental threats (Clayton et al., 2017; Hickman, 2024; Léger-Goodes et

al., 2022; Pihkala, 2022). Particularly poignant among youth, who face a future shaped by the consequences of current environmental policies and practices, eco-anxiety manifests in various forms, including worry about the future, fear of ecological disasters and grief for ecological loss (Clayton et al., 2017; Galway & Field, 2023; Hickman, 2024; Léger-Goodes et al., 2022). As the guardians of future generations, young people are uniquely susceptible to the psychological impacts of environmental uncertainty, prompting a growing need for effective interventions to support their mental well-being in the face of ongoing ecological distress and uncertainty. Recent studies have highlighted children and adolescents' varied responses to environmental concerns, encompassing both maladaptive reactions, including denial and adaptive approaches, such as constructive hope (Clayton et al., 2017; Léger-Goodes et al., 2022; Ojala, 2012; Sanson et al., 2018). Initial recommendations for parents, caregivers, educators, school counsellors and administrators involve integrating age-appropriate climate education into school curriculum, acknowledging and validating youth emotions and fostering resilient coping skills through empowerment initiatives (Léger-Goodes et al., 2022; Malboeuf-Hurtubise et al., 2024; Marks et al., 2023; Ojala, 2012, 2019; Rousell & Cutter-Mackenzie-Knowles, 2019; Sanson et al., 2019). Human connection with the natural environment has been described as a basic psychological need for achieving overall well-being (Naor & Mayseless, 2021; Nejade et al., 2022; Moll et al., 2022). The benefits of connecting with nature have encouraged the emergence and growth of ecotherapy and nature-based therapies (Jordan & Hinds, 2016; Moula et al., 2022; Naor & Mayseless, 2021; Wardle, 2025). Rooted in the belief that human well-being is intrinsically connected to the health of the natural world, ecotherapy offers a holistic framework for healing that acknowledges the reciprocal relationship between environmental and personal well-being (Buzzell & Chalquist, 2009; Jordan & Hinds, 2016).

An area of inquiry currently garnering mainstream attention has to do with the range of ways people respond to the climate crisis on a psychological level. The available research suggests that exposure to climate-change related events frequently result in or compound adverse mental health outcomes (Boivin et al., 2025; Clayton et al., 2017; Hickman, 2024; Vecchio et al., 2022). Children and adolescents are at risk for experiencing ecological anxiety, or what Clayton et al. (2017) define as the anticipatory fear and chronic worry related to environmental disaster. As climate change is projected to worsen significantly over the next decade, it is reasonable to suspect that more youth will begin to seek professional support for associated mental health problems.

Purpose of the Paper

The purpose of this literature review is to explore how nature-based art therapy can serve as a promising intervention for mitigating eco-anxiety in youth (Gulbe et al., 2025; Wardle, 2025). Specifically, the paper aims to investigate how these creative and nature-oriented practices may foster emotional resilience and strengthen young people's relationship with the environment in the face of climate-related distress. This topic was chosen in response to the growing mental health impacts of the climate crisis on children and adolescents specifically, and the urgent need for developmentally appropriate, imaginative and hopeful approaches to care. The review is intended to support counsellors, educators and school administrators seeking to better understand and respond to eco-anxiety through therapeutic and pedagogical practices grounded in both creativity and connection to the natural world.

Thesis Statement

This literature review examines nature-based art therapy as a promising intervention for mitigating eco-anxiety in youth, with the potential to support emotional resilience and foster a healthy relationship with the natural world in response to growing environmental concerns.

Positionality Statement

I would like to acknowledge that I am a third-generation white settler of mixed Italian and Scottish ancestry. I am a cisgender, heterosexual female. My intersectional position is one of privilege and I recognize the unconscious biases that have shaped and continue to impact my worldview. I am committed to ongoing efforts to uncover and dismantle these biases, particularly those rooted in colonial perspectives.

In addition, I recognize, as Wray (2022) articulates, that my privileged position allows me the luxury of dreading the future impacts of climate change, while others, particularly the marginalized and impoverished, actively suffer in the present from systemic inequalities and environmental injustices they played little role in creating. As a result, I strive to approach my work by being accountable, critical and continually engaged in practices of decolonization and solidarity.

Significance of the Study

The increasing prevalence of eco-anxiety among youth constitutes a pressing concern for educators, school counsellors and mental health practitioners tasked with supporting the emotional and developmental needs of this vulnerable population. This study is significant in its focus on nature-based art therapy as an innovative and underexplored intervention for alleviating the psychological impacts of climate change on young people. By examining therapeutic approaches that integrate creative expression and connection to the natural environment, this research contributes to the advancement of developmentally appropriate and culturally responsive mental health interventions tailored to the unique challenges posed by ecological distress.

The findings of the literature review hold considerable implications for a range of stakeholders. Educators and school counsellors stand to benefit from enhanced understanding of

eco-anxiety's manifestations and consequences within academic settings, as well as from evidence-based strategies to promote emotional resilience and pro-environmental engagement among students. The incorporation of nature-based art therapy into social-emotional learning frameworks may offer valuable non-verbal modalities for youth to process complex ecological grief (Gulbe et al., 2025; Staples et al., 2019). Educational administrators and policymakers, in turn, may draw upon these insights to inform the design and implementation of responsive mental health policies and curricula that address the psychological dimensions of climate change. As awareness grows around the intersection of mental health, environmental education and student wellbeing, there is increasing urgency for system-level strategies that incorporate climate-informed emotional supports into school-based programming. By aligning with contemporary educational priorities, such as trauma-informed practice, inclusive education and social-emotional learning, this research underscores the potential for nature-based art therapy to contribute meaningfully to whole-school approaches to mental health and climate-change resilience.

Ultimately, this capstone seeks to contribute to the growing discourse on youth mental health and climate change by examining innovative, nature-connected therapeutic approaches. The anticipated benefits extend beyond individual emotional regulation to encompass community wellbeing and environmental stewardship, thereby fostering more adaptive and empowered responses to the ongoing climate crisis.

Outline of the Remainder of the Paper

Following the comprehensive literature review presented in Chapter 2, which explores key themes including the nature and impacts of eco-anxiety among youth, therapeutic interventions such as expressive arts and nature-based therapies, storytelling and Indigenous perspectives on land-based healing, Chapter 3 proposes a detailed 8-week Nature-Based Art

Therapy (NBAT) group program specifically designed to support youth aged 12 to 15 experiencing eco-anxiety. This chapter includes the program's structure, therapeutic goals, session activities and implementation considerations, with a focus on practical applications for school counsellors, educators and mental health practitioners. Subsequent sections will address the methodology used to evaluate the program's effectiveness, discuss findings in relation to existing research and conclude with recommendations for future practice, policy and research in supporting youth eco-anxiety through creative, nature-based approaches.

Chapter 2: Literature Review

Introduction

Climate change and mental health

Climate change represents a profound and multifaceted threat to global health, with implications that extend across environmental, social and economic domains. An estimated 3.3 to 3.6 billion people currently live in regions that are highly susceptible to the adverse effects of climate change, including increased exposure to extreme weather events and growing insecurity to food and water access (Romanello et al., 2024; IPCC, 2023). Among these far-reaching effects, mental health has emerged as a critical, yet often underrecognized, area of concern

(Boivin et al., 2025; IPCC, 2022; Pikala, 2022; Clayton, 2020). The psychological consequences of climate change, including anxiety, depression and post-traumatic stress are increasingly recognized in both clinical and research settings (Boivin et al, 2025; Cosh et al., 2024; Hickman, 2024; Pikala, 2022). These effects are not evenly distributed; vulnerable populations such as children, Indigenous communities, and those living in climate-affected regions often face disproportionate risks (Bennett & Friel, 2014; Clayton et al., 2021; Coffey et al., 2021; Hatch & Raihan, 2024; IPCC, 2022; NCCIH, 2022; Vecchio et al., 2022). As the frequency and intensity of climate-related events continue to rise, so too does the urgency of understanding and addressing their mental health consequences. This is especially critical for young people, who are uniquely vulnerable to the emotional toll of the climate crisis.

Youth and the emotional toll of the climate crisis

Young people, in particular, are deeply affected by the mental health dimensions of the climate crisis (Boivin et al, 2025; Hickman, Coffey et al., 2021; 2024; Léger-Goodes et al., 2023; Pikala, 2022). As future stewards of the planet, youth not only face the burden of inheriting a deteriorating environment but also carry the weight of witnessing its rapid decline. Young people and future generations are especially vulnerable to the impacts of climate change, as they will experience its consequences throughout their lifetime (Adhoot et al., 2024; Hickman, 2024; Pikala, 2022). The terms “eco-anxiety,” “climate anxiety,” “climate grief,” “solastalgia,” or “eco-distress” are being used to describe this experience of intense emotions stemming from concerns about climate change (Léger-Goodes et al., 2022; Vergunst & Berry, 2021; Clayton et al., 2017). As the climate crisis intensifies, eco-anxiety has emerged as a significant psychological phenomenon, marked by persistent feelings of fear, helplessness, guilt and distress (Ágoston et al., 2022; Boivin et al, 2025; Coffey et al., 2021; Hickman, 2024; Léger-Goodes et al., 2023; Pikala, 2022). It reflects both immediate emotional reactions to environmental

degradation and deeper existential concerns about an uncertain future (Boivin et al., 2025; Hickman, 2024). Recognizing these complex emotional layers highlights the need for therapeutic responses that effectively engage young people in meaningful and accessible ways.

The role of nature and creativity

Addressing this growing concern, particularly amongst youth, requires the development of therapeutic approaches that are both age-appropriate and contextually relevant. A range of therapeutic approaches have been proposed to address the psychological effects of climate change, including cognitive behavioural therapy (CBT), mindfulness-based interventions and trauma-informed care (Baudon & Jachens, 2021; Malboeuf-Hurtubise et al., 2021). While these modalities offer valuable tools for managing anxiety and stress, they have not traditionally been situated within an ecological framework. As such, they may overlook opportunities to address the relational and existential dimensions of eco-anxiety, such as grief over environmental loss or the longing for connection with the natural world. In contrast, emerging integrative practices, such as nature-based and creative art therapies, may provide a more holistic and embodied means of fostering emotional regulation and resilience in the context of environmental change (Gulbe et al, 2025; Wardle, 2025).

This literature review explores how Nature-Based Art Therapy (NBAT) interventions can support young people experiencing eco-anxiety. The review is organized into three sections: (1) understanding eco-anxiety in youth; (2) therapeutic frameworks and interventions, including ecotherapy, narrative therapy and creative practices; and (3) the emergence of Nature-Based Art Therapy (NBAT) as a promising, integrative response. By synthesizing existing literature, this review identifies key insights, gaps in the research and future directions for addressing youth mental health in an increasingly uncertain world.

Definition of Terms

Art Therapy: A therapeutic approach that uses art, music, dance/movement, dramatic enactment, creative writing and imaginative play to improve mental, emotional and physical well-being (McLaughlin & Seabrook, 2025).

Biophilia: The innate human affinity for nature and living systems, which supports psychological health and well-being (Gaekwad et al., 2022)

Eco-anxiety: A chronic fear of environmental doom characterized by feelings of helplessness and distress related to climate change and ecological crises (Clayton et al., 2017).

Eco-emotions: Emotional responses related to ecological changes and environmental issues, including grief, anger, hope and fear (Hickman, 2024)

Ecological Grief: The mourning experienced in response to ecological losses such as species extinction, habitat destruction or environmental degradation (Cunsolo & Ellis, 2018).

Ecopsychology: A field that explores the psychological relationship between humans and the natural environment, emphasizing healing through nature connection (Roszak et al., 1995)

Eco-therapy: Therapeutic interventions that incorporate nature and outdoor experiences to promote mental health and emotional well-being (Jordan & Hinds, 2016).

Meaning-Making: The process by which individuals interpret and make sense of their experiences, often leading to personal growth and resilience (Park, 2010)

Nature-Based Art Therapy (NBAT): An integrative approach combining art therapy techniques with direct or indirect engagement in natural settings to support emotional expression and healing (Gulbe et al., 2025).

Nature Mandalas: Circular designs created with natural materials, used in therapeutic contexts to promote mindfulness, grounding, and connection to nature (Malboeuf-Hurtubise et al., 2022).

Solastalgia: A form of distress caused by environmental change in one's home environment, leading to feelings of loss and displacement (Cunsolo & Ellis, 2018).

Review of Research Literature

Understanding Eco-Anxiety in Youth

Numerous studies have highlighted the mental health impact on youth who are suffering severe emotional upset because of climate change (Boivin et al, 2025; Hickman, 2024; Léger-Goodes et al., 2023; Ágoston et al., 2022; Pikala, 2022). In 2022, the Intergovernmental Panel on Climate Change (IPCC) Report marked the first comprehensive acknowledgement of climate change's mental health repercussions. Prior to this, the focus of research was primarily on its physical health impacts (Boivin et al., 2025). Hickman (2024) posits that the inclusion of post-traumatic stress disorder (PTSD), trauma, depression and anxiety in the IPCC report validates long-held beliefs that the impacts of the climate crisis on mental health is profound, widespread and disproportionately affects children. As awareness of the climate crisis grows, youth are increasingly attuned to its consequences for both planetary and human health. However, this awareness frequently evokes strong emotional reactions, including psychological distress, anger and despair (Boivin et al., 2025; Hickman, 2024; Léger-Goodes et al., 2022; Clayton et al., 2017).

Clayton et al. (2017) define eco-anxiety as the anticipatory fear of environmental disaster combined with chronic concern about the future, not just for oneself, but for future generations. Importantly, eco-anxiety is shaped not only by direct environmental exposure but also by sociocultural forces, such as media coverage, peer networks and political discourse, which can heighten feelings of urgency and helplessness (Boivin et al., 2025; Hickman, 2024; Clayton et al., 2017). Increasingly, researchers argue that such responses should not be pathologized. Rather, eco-anxiety is better understood as a rational and adaptive reaction to ongoing ecological

destabilization and sociopolitical inaction (Boivin et al., 2025; Hickman et al., 2021; Léger-Goodes et al., 2022; Clayton et al., 2017). This reframing shifts the focus from symptom reduction to a deeper inquiry into the developmental and systemic conditions under which young people experience and express ecological distress (Malboeuf-Hurtubise et al., 2024; Pihkala, 2020). Building on this perspective, it is important to recognize youth-specific vulnerabilities that shape how children and adolescents are uniquely affected by eco-anxiety.

Youth-Specific Vulnerability to Eco-Anxiety

Children and adolescents are uniquely vulnerable to the psychological impacts of climate change due to an interplay of developmental, physiological and social factors. While eco-anxiety can affect individuals across the lifespan, emerging evidence suggests that young people experience climate-related distress in distinctive and sometimes more debilitating ways (Wardle, 2025; Hickman et al.,, 2024; Clayton et al., 2017; Vergunst & Berry, 2021).

From a developmental standpoint, youth are still acquiring the emotional regulation and cognitive skills necessary to process complex, existential fears. While they can experience powerful emotions such as fear, sadness and anger, they often lack the verbal tools and coping mechanisms to manage these feelings effectively (Hickman, 2024; Vergunst & Berry, 2021). The abstract and overwhelming nature of climate change, frequently presented without clear solutions, can reinforce feelings of helplessness and confusion.

Social and environmental conditions further compound this distress. Today's youth are frequently exposed to media reports of wildfires, floods, species extinction and political inaction, often without sufficient adult scaffolding to help them emotionally process such content (Wardle, 2025; Hickman et al., 2021; Ojala, 2015). This absence of support is compounded by broader societal patterns of denial and inaction regarding the ecological crisis, which can create relational strain between young people and the adults they depend on for guidance and care (Hickman et

al., 2024; Hickman, 2020). Since emotional regulation in childhood is shaped through adult modelling, a lack of constructive coping responses from caregivers may leave children without the tools needed to process climate-related distress (Hickman et al., 2021; Wardle, 2025). Repeated exposure to environmental threats under these conditions can lead not only to fear and sadness, but also to cynicism, distrust in institutions and diminished hope for the future (Hickman et al., 2024; Ojala, 2015; Vergunst & Berry, 2021). For some, this manifests as depressive symptoms or disengagement from school; for others, as anxiety, activism or emotional withdrawal (Hickman et al., 2021; Ojala, 2012; 2019; Léger-Goodes et al., 2022;). Physiologically, children's developing immune, respiratory and nervous systems increase their susceptibility to the physical effects of climate change. This includes heightened vulnerability to air pollution, malnutrition and trauma following climate-related disasters, all of which compound the emotional burden of eco-anxiety (Bennett & Friel, 2017; Sanson et al., 2019). This intersection of physical vulnerability and emotional distress contributes to a persistent sense of threat and can disrupt children's emotional regulation, sense of safety and capacity for recovery (Cunsolo & Ellis, 2018; Sanson et al., 2019; Clayton et al., 2017).

Finally, eco-anxiety does not occur in isolation from other systemic and historical vulnerabilities. Youth from Indigenous communities, racialized groups and lower-income households are disproportionately affected by environmental degradation and climate-related displacement (Clayton et al., 2017; Coffey et al., 2021; Hatch & Raihan, 2024; Vecchio et al., 2022). In these communities, the psychological burden of climate change is compounded by experiences of intergenerational trauma, social marginalization and ongoing environmental injustice. Indigenous communities face the profound risk of losing not only their traditional homelands but also the cultural knowledge and practices that are inextricably connected to these territories (Clayton et al., 2017; Vecchio et al., 2022). Recognizing the intersectionality of eco-

anxiety is essential to developing equitable and effective interventions that account for both individual and collective experiences of ecological harm. To inform such interventions, it is crucial to explore the emotional terrain that shapes how young people process and respond to climate-related distress.

Emotional Landscapes in Youth Eco-Anxiety

Eco-anxiety in youth emerges from a complex interplay of climate awareness, direct and indirect exposure to environmental degradation and fear for the future, which all converge during a critical stage of emotional and cognitive development (Ahdoot, 2024; Hickman, 2024; Léger-Goodes et al., 2022; Clayton et al., 2017). Research shows that children and youth commonly experience emotions such as fear, sadness, anxiety, helplessness, guilt, grief and despair in response to the climate crisis (Hickman, 2024; Léger-Goodes et al., 2022). In a global survey, Hickman et al. (2021) found that 75% of youth viewed the future as frightening and over half believed humanity was doomed. These intense emotional responses are compounded by feelings of betrayal, abandonment and dismissal by governments and adults in positions of power (Hickman, 2024; Léger-Goodes et al., 2022).

Youth Responses to Political Inaction

For many young people, these emotions are further complicated by psychological defense mechanisms such as denial, minimization or emotional numbing (Hickman, 2024; Pihkala, 2020; Norgaard, 2011). These responses may mask the true extent of climate distress, leading to increased feelings of isolation or apathy. These feelings of betrayal often deepen into a more profound psychological disorientation. Hickman (2024) observed that over time, youth are no longer simply asking for support in managing eco-anxiety; rather, they are increasingly questioning how to live in a world where their futures seem disregarded. Young people report shifting their anxiety from the climate itself to those in positions of power who appear indifferent

to environmental and generational well-being. Hickman (2024) observed that many youth share sentiments such as, *"Tell me how to stay alive and sane in a world that clearly just doesn't care about us having a future"* (Hickman, 2024, p.358) or *"...all the therapy in the world is not going to make me feel ok about feeling so hated by the people running this country"*(Hickman, 2024, p.358). These expressions reflect a kind of moral and existential distress that is not easily reconciled, particularly when children observe political contradictions, such as global leaders declaring a climate emergency while simultaneously expanding fossil fuel development. This tension contributes to what has been described as unresolvable despair, where climate-aware youth increasingly feel abandoned by the very systems meant to protect them (Hickman et al., 2021; Malboeuf-Hurtubise et al., 2024; Clayton et al., 2017)

While the emotional landscape of youth eco-anxiety is wide-ranging, it is also deeply rooted in lived experience. Climate change not only shapes how youth feel about the future, but how they engage with the world around them. Taken together, these findings underscore that eco-anxiety among youth is not irrational panic, but an emotionally attuned response to a deteriorating world and inadequate systemic action (Hickman et al., 2021; Malboeuf-Hurtubise et al., 2024; Pihkala, 2020). Emerging scholarship further suggests that, under the right conditions, this form of distress may also function as a motivational force, prompting adaptive coping, engagement and collective action among young people (Hickman, 2020; Ojala, 2012; 2019).

Eco-Anxiety as a Catalyst for Resilience and Action

Although eco-anxiety can be a source of profound emotional distress, research also suggests it can serve as a catalyst for resilience and meaningful action, especially when youth are supported in emotionally honest and relationally safe contexts (Ojala, 2012; 2015). While many youth report feeling dismissed or ignored when expressing their climate concerns (Hickman,

2024; Malboeuf-Hurtubise et al., 2024), acknowledging and validating these emotions is essential to supporting adaptive coping strategies rather than avoidance or suppression (Marks et al., 2023; Baker et al., 2021).

Eco-anxiety, though often characterized by fear, sadness and worry, is not inherently pathological. Instead, it can signal a deep engagement with environmental realities that motivates youth to seek solutions and participate actively in climate action (Baker et al., 2021; Ágoston et al., 2022; Clayton et al., 2017; Ojala, 2012). When youth are provided with supportive environments that foster safe emotional expression, positive emotions such as hope, trust and optimism can emerge, buffering stress and enhancing psychological resilience (Marks et al., 2023; Ágoston et al., 2022; Ojala, 2012). One notable expression of resilience among youth experiencing eco-anxiety is their increasing engagement in climate activism. Rather than remaining passive in the face of distressing ecological realities, many young people are transforming their emotional burden into organized, collective action (Han & Ahn, 2020; Ojala, 2012). This suggests that eco-anxiety, for many youth, functions not as a paralyzing force but as a motivator for activism and engagement.

Eco-Anxiety and Youth Climate Activism

For many young people, eco-anxiety does not lead to apathy or paralysis but instead becomes a driving force behind activism. Youth-led climate movements have emerged globally as outlets for ecological grief and anxiety, transforming emotional distress into collective empowerment and purpose (Han & Ahn, 2020; Ojala, 2012). Participation in climate activism has been shown to bolster psychological resilience by offering young people a sense of agency, community and connection in the face of global uncertainty (Hickman et al., 2021; Ojala, 2019).

Movements such as *Fridays for Future*, initiated by Greta Thunberg, demonstrate how young people are not only aware of the climate crisis, but are actively demanding systemic

change (Ojala, 2019). These movements often function as supportive communities where youth can share their fears, hopes and visions for a livable future, mitigating feelings of isolation and helplessness (Han & Ahn, 2020). Engaging in activism provides young people with opportunities to influence public discourse and policymaking.

While activism can sometimes be emotionally taxing, studies suggest that it often promotes a sense of purpose and psychological protection, particularly when paired with peer support and adult mentorship (Han & Ahn, 2020). Ojala (2019) emphasizes that meaning-focused coping strategies, such as holding existential hope while remaining actively engaged, are not forms of denial, but rather adaptive ways to confront overwhelming realities and sustain long-term involvement in climate action. Extending this perspective into everyday settings, educational contexts have emerged as critical environments for supporting youth in navigating the emotional dimensions of the climate crisis.

Eco-Anxiety in Educational Contexts

As the climate crisis escalates, so too does the emotional burden placed on young people. Schools are increasingly being recognized as essential spaces for addressing climate-related emotional distress (Ojala, 2012). However, while climate education is becoming more prevalent, support for the emotional dimensions of that education remains limited (Malboeuf-Hurtubise et al., 2022; Ojala, 2012).

Despite growing awareness, most schools are not yet equipped to support students experiencing eco-anxiety in a meaningful or consistent way. Educators and school counsellors often lack training, resources and institutional support to help students process complex emotional responses to environmental degradation (Ojala et al., 2021). Furthermore, many existing climate education initiatives emphasize cognitive knowledge and behavioural change

without addressing the emotional or psychological challenges climate change presents to young learners (Ojala, 2012).

Malboeuf-Hurtubise et al. (2022) argue for the integration of structured opportunities in educational settings where youth can openly express and explore their feelings of eco-anxiety. This includes creating emotionally safe spaces for dialogue, artistic expression and guided reflection to allow youth to confront painful truths while building adaptive strategies. Without such supports, students may internalize distress, leading to disengagement, helplessness or maladaptive coping.

Hickman (2019) also highlights a significant interpersonal gap. In her clinical work, she found that many young people do not feel comfortable discussing their eco-anxiety with adults, including family members, due to invalidation or conflict. As one client described, they felt *"like they were being asked to fix the crisis for the adults"* (p. 419). This dynamic may also manifest in schools, where educators themselves feel overwhelmed or unsure how to respond, potentially silencing or minimizing student concerns (Ojala, 2015).

In addition to these emotional and relational gaps, a lack of policy-level guidance on climate-related mental health in school systems further complicates consistent implementation. While some innovative programs exist, they are often isolated, research-driven initiatives rather than embedded practices in broader educational frameworks (Gislason et al., 2021; Sanson et al., 2019). This absence of systemic support highlights the need for more intentional, integrative approaches, particularly therapeutic interventions that can address the emotional and psychological dimensions of eco-anxiety in youth with both structure and sensitivity.

Therapeutic Interventions for Eco-Anxiety

Given the unique developmental, emotional and systemic factors that shape youth experiences of eco-anxiety, therapeutic responses must extend beyond traditional models. This

section reviews emerging interventions that foster nature connection and creative expression as central to addressing climate-related distress in young people.

As eco-anxiety becomes increasingly widespread, the demand for therapeutic support is growing, yet many clinicians report feeling underprepared to address it meaningfully in practice (Baudon & Jachens, 2021). Given the deep emotional, social and existential dimensions of eco-anxiety, a one-size-fits-all approach is insufficient. Instead, emerging scholarship emphasizes the importance of multidimensional strategies that consider individual differences, cultural contexts and developmental stages.

Baudon and Jachens (2021) identified five overarching components found across effective interventions: cultivating inner resilience through emotional and creative expression, fostering social support systems, encouraging ecological engagement, enhancing therapist climate literacy and reflective practice and promoting mindful connection with the natural world.

In tandem, Mah et al. (2020) highlight the value of tailoring therapeutic strategies to a youth's primary coping orientation, whether problem-focused (action-driven), emotion-focused (regulation-based) or meaning-based (narrative and spiritual reframing). Effective climate communication is also foundational, with research emphasizing the importance of emotionally honest, non-catastrophic messaging that empowers rather than overwhelms (Baker et al., 2021; Clayton, 2020; Hickman, 202). Rather than overwhelming young people with despair-inducing narratives, constructive communication strategies present climate change as a serious yet addressable challenge and highlight examples of community action and ecological restoration. In this context, integrative and experiential modalities, such as ecotherapy, creative arts and land-based healing, are gaining traction (Malboeuf-Hurtubise et al., 2024; Marks et al., 2023).

Foundations and Scope of Ecotherapy

Clinebell (1996) introduced the term ecotherapy, advocating for a holistic relationship with nature that recognizes not only nature's capacity to nurture human well-being but also humans' reciprocal responsibility to care for the environment. Ecotherapy seeks to heal the human–nature connection through a variety of practices such as horticultural therapy, animal-assisted therapy, wilderness therapy, eco-dreamwork, natural lifestyle practices, and interventions addressing eco-anxiety and ecological grief (Jordan & Hinds, 2016). These approaches integrate nature and outdoor experiences into therapeutic work with the goals of enhancing mental health, fostering resilience and promoting ecological consciousness. Grounded in the principles of ecopsychology, ecotherapy rests on the understanding that human health is deeply interconnected with the health of the earth. Moreover, ecopsychology asserts that disconnection from nature contributes to psychological distress, and that restoring this connection can support well-being, resilience and a renewed sense of purpose (Buzzell & Chalquist, 2009).

Human-Nature Connection

In this framework, emotional distress such as eco-anxiety is not seen as pathological but as a meaningful response to environmental degradation; one that can be transformed through intentional re-engagement with the natural world. Furthermore, Louv (2005) coined the term "nature-deficit disorder" to describe the behavioral and emotional consequences of children's growing disconnection from the natural world. In response, numerous studies have highlighted the role of green spaces in promoting mental health, social connection and pro-environmental values in youth (Tillmann et al., 2018). Nature-based programs have been shown to increase self-esteem, improve mood and decrease behavioral problems among children and adolescents (Bowler et al., 2010).

Therapeutic Approaches and Benefits for Youth

Ecotherapy operates through multiple mechanisms: it supports emotional regulation through exposure to natural stimuli, reduces physiological stress responses, enhances mindfulness and fosters a sense of connectedness and belonging (Bragg & Atkins, 2016). For young people who are still developing emotional coping skills, these benefits are particularly relevant. Interacting with nature can also promote prosocial behaviors and environmental agency, both of which are protective factors against climate-related distress (Moll et al., 2022). As concerns about eco-anxiety rise, ecotherapy offers a compelling approach by reframing emotional responses as valid, and by offering tools for processing, expressing and transforming that distress. Rather than seeking to cure eco-anxiety, ecotherapy encourages individuals to sit with their emotions, connect with others and nature and take meaningful action (Pihkala, 2020). This emphasis on connection, reciprocity and empowerment aligns ecotherapy closely with the values needed to foster climate resilience in the next generation.

For young people in particular, nature-based practices can be especially effective due to their developmental needs for exploration and emotional expression. Baudon and Jachens (2021) found that ecotherapy interventions ranged from encouraging clients to engage with nature outside of sessions, to facilitating in-session reflection on personal and societal relationships with the natural world, to employing cognitive strategies aimed at reframing catastrophic thinking about climate change and fostering a sense of agency through meaningful action. Despite differing theoretical orientations, these approaches consistently emphasized the importance of group-based work (Baudon & Jachens, 2021). Group settings were found to provide a valuable space for emotional expression, mutual support and the linking of individual experiences of eco-anxiety to the broader collective.

Challenges and Ethical Considerations

Despite its growing popularity, ecotherapy still faces limitations in terms of standardized practices, professional training and empirical validation. Much of the existing literature consists of qualitative studies or program evaluations, with a need for more rigorous, longitudinal research to understand its mechanisms and outcomes (Jordan & Hinds, 2016). Additionally, critiques have emerged regarding the cultural framing of ecotherapy, with scholars calling for greater attention to Indigenous knowledge systems, decolonizing practices and equitable access to natural spaces (Vecchio et al., 2022; Simpson, 2017). These critiques emphasize that while ecotherapy offers powerful tools for healing, it must be practiced ethically, inclusively and in dialogue with diverse ways of relating to land and place.

Indigenous Perspectives and Land-Based Healing

While ecotherapy is often framed within Western psychological and environmental paradigms, many of its core principles, such as the belief in the healing power of nature, are deeply rooted in traditional Indigenous knowledge systems. As Houser (2021) highlights, "Connectivity, interdependence and reciprocity between humans and the earth are ancient understandings, and they must not be mistakenly attributed to contemporary Western academics" (p.30). For many Indigenous peoples, land is not simply a resource or backdrop for healing, but a living, relational entity: a relative, teacher and source of spiritual nourishment (Kimmerer, 2013). The concept of "land as medicine" reflects a worldview in which emotional, physical and spiritual health are inextricably tied to reciprocal relationships with the earth and its inhabitants (Chrona, 2022; Simpson, 2017). These understandings predate and expand upon the Western notion of ecotherapy, calling into question frameworks that position nature-based healing as novel or primarily clinical.

From this perspective, ecological grief and anxiety are not solely psychological responses to climate disruption, but rather manifestations of intergenerational trauma, colonization and

ongoing disconnection from land (Vecchio et al., 2022; Whyte, 2017). While the term eco-anxiety has gained traction in Western discourse, it may inadequately capture the multi-layered experiences of Indigenous youth, who often confront environmental degradation in conjunction with cultural erasure and historical dispossession (Vecchio et al., 2022; Redvers et al., 2020). Research suggests that for many Indigenous youth, ecological distress is frequently entwined with a sense of cultural responsibility and an orientation toward resilience and collective healing, rather than feelings of helplessness alone (Redvers et al., 2022; Whyte, 2017).

Despite the growing body of literature on eco-anxiety, there remains a marked lack of peer-reviewed research focused specifically on the lived experiences of Indigenous youth within this domain (Coffey et al., 2021; Redvers et al., 2020). Existing studies often fail to sufficiently integrate Indigenous knowledge or to consult community voices in meaningful ways. As such, more research is needed to explore how climate-related emotional distress is experienced, understood and addressed within Indigenous communities, particularly in youth populations. Nevertheless, Indigenous-led land-based healing initiatives offer compelling models of culturally grounded mental health promotion. These programs often integrate ceremony, storytelling, language revitalization, traditional ecological knowledge and intergenerational learning to foster identity, resilience and belonging (Chrona, 2022; Whyte, 2017). As nature-based and ecotherapeutic interventions gain prominence in educational and clinical settings, it is essential that practitioners approach this work with cultural humility; honoring Indigenous knowledge systems not as adjuncts to Western models but as integral and sovereign frameworks.

Expressive Arts and Nature-Based Creative Interventions

Expressive arts and nature-based creative interventions can offer an intuitive, developmentally responsive pathway for supporting youth experiencing eco-anxiety. These approaches draw on the therapeutic power of imagination and sensory engagement, which are

tools that allow young people to explore complex emotions in ways that are non-verbal and feel safe and tangible (Berger & Lahad, 2010; Mclaughlin, 2025; Malboeuf-Hurtubise et al., 2022). When grounded in natural settings, creative practices such as nature mandalas, land art or guided visualizations help reconnect children with the rhythms, textures and metaphors of the more-than-human world, fostering a sense of belonging (Malboeuf-Hurtubise et al., 2022; Moula et al., 2022).

As part of a series of nature-based expressive workshops, Malboeuf-Hurtubise et al. (2022) implemented outdoor interventions where children engaged in creative activities including nature journaling, guided visualizations, emotion mapping in nature and the co-creation of eco-anxiety toolkits. These multimodal interventions helped participants develop self-awareness and ecological empathy while providing safe, sensory-rich outlets for emotional expression. Notably, these activities also supported meaning-making by allowing participants to symbolically process complex emotional states, such as grief or existential fear, in concrete, playful and empowering ways.

Expressive arts are particularly effective for addressing emotions that are difficult to verbalize, such as grief, awe, rage or helplessness (McLaughlin, 2025). As youth manipulate materials, create art and engage in non-verbal storytelling, they access symbolic ways of understanding and transforming distress. This helps bridge internal emotional experiences with external realities, making overwhelming eco-emotions feel more tangible and manageable. In this way, creative interventions not only promote emotional regulation but also foster agency, connectedness and ecological belonging. (Malboeuf-Hurtubise et al., 2022).

Story-Telling and Narrative Therapy

Storytelling and narrative therapy offer meaningful ways for youth to externalize eco-anxiety and re-author their relationship to the natural world. Grounded in the understanding that

people construct meaning through narrative, these approaches help individuals explore, deconstruct and reshape the stories they tell about themselves, their emotions and the world around them (Baudon & Jachens, 2021). For young people navigating climate distress, storytelling can be especially powerful, providing a structure for organizing overwhelming experiences and imagining alternate futures rooted in hope and agency.

Storytelling has also been recognized as a valuable tool for supporting children's development, offering a unique avenue for processing challenging topics and fostering emotional well-being (Gunawardena & Koivula, 2023; Ramamurthy et al., 2024). In the context of eco-anxiety, narrative approaches help reframe distress as a sign of empathy and care for the planet rather than a symptom of dysfunction. Through practices such as journaling, story circles, metaphor, visual storytelling and creative writing, youth are encouraged to situate themselves within broader ecological narratives, transforming fear, grief or guilt into purposeful action (Marks et al., 2023; Malboeuf-Hurtubise et al., 2021, 2024).

When combined with nature-based practices, storytelling becomes a powerful means of processing climate-related emotions (Malboeuf-Hurtubise et al., 2021; 2024). For example, Malboeuf-Hurtubise et al. (2021) and Marks et al. (2023) found that youth who engaged in creative eco-art activities, involving collaborative visual storytelling, were better able to articulate their concerns and co-create hopeful futures. These shared experiences not only helped regulate distress but also supported peer connection. By integrating storytelling into ecotherapy, youth are supported in re-authoring their relationship with the earth.

Story-Telling and Collective Narratives

Beyond individual storytelling, peer and community-based approaches provide opportunities for youth to co-construct empowering narratives that build solidarity and collective resilience. Group discussions, climate clubs and youth-led advocacy projects offer safe spaces

where participants can move from isolation and overwhelm toward connection and agency. These interventions emphasize shared meaning-making, mutual validation and a sense of belonging (Ojala, 2012; 2019). Research shows that young people engaged in climate-focused peer communities often report a heightened sense of purpose, which in turn helps buffer feelings of helplessness and despair (Han & Ahn, 2020; Hickman et al., 2021). These models highlight the importance of educational and community programs that foster interconnection, active hope and shared responsibility (Marks et al., 2023; Ojala, 2012). The demonstrated benefits of storytelling in fostering ecological identity and resilience underscore the need for further investigation into its therapeutic and educational applications. Simultaneously, as the field advances toward climate-informed care, it is imperative to address the emotional complexities and preparedness of therapists working within this emerging framework.

Complexities of Climate-Informed Care

As the counselling field moves toward more climate-informed care, it is essential to recognize that therapists are themselves affected by the emotional gravity of the climate crisis. Research suggests that clinicians may feel overwhelmed, uncertain or ill-equipped to address eco-anxiety, particularly when they share in the same distress (Baudon & Jachens, 2021; Norgaard, 2011; Pihkala, 2022). The dual role of being both witness to and participant in the climate crisis can create inner conflict and ethical uncertainty, particularly when therapists question whether their efforts can meaningfully impact global ecological outcomes. Fear of inadequacy can create barriers to therapeutic engagement, which highlights the need for reflective practice, supervision and professional development in this area (Clayton et al., 2017). Encouraging therapists to acknowledge these internal responses, without self-judgment, aligns with principles of psychological flexibility and models the emotional resilience that clients are also seeking to build (Hayes et al., 2011; Hickman, 2020).

It is also important to consider that eco-anxiety is rarely the sole presenting concern. For many youth, it intersects with broader experiences of anxiety, depression, trauma or identity development (Clayton et al., 2017; Hickman et al., 2021; Ojala, 2019; Vergunst & Berry, 2021). Effective intervention requires therapists to hold space for eco-distress while also attending to co-occurring challenges, particularly when immediate needs, such as safety or trauma stabilization, must take precedence. In such cases, climate distress may be overshadowed or deprioritized in favour of more immediate mental health needs. For example, a youth presenting with signs of PTSD should first receive evidence-based trauma treatment, with eco-anxiety integrated as part of a broader therapeutic intervention. This underscores the importance of nuanced clinical judgment and the ability to hold multiple intersecting experiences. Therapeutic work with eco-anxiety often unfolds within the wider landscape of a client's life and must be tailored accordingly.

Nature-Based Art Therapy as a Therapeutic Approach

The COVID-19 pandemic brought renewed global attention to the essential role of nature in supporting mental health, highlighting the urgency of accessible and adaptable therapeutic approaches (Malboeuf-Hurtubise et al., 2021). In response, nature-based interventions have gained traction for their capacity to foster connection, resilience and well-being (Gulbe et al., 2025; Moula et al., 2022). Within this landscape, Nature-Based Art Therapy (NBAT) has emerged as a particularly compelling approach by blending creative expression with the restorative qualities of the natural environment. As a growing specialization within art therapy, NBAT encompasses a range of practices that intentionally incorporate natural elements and environments into the therapeutic process. Although terminology in the field continues to evolve, NBAT broadly refers to approaches in which nature is not merely a backdrop but an active component in fostering well-being through creative expression (Gulbe et al., 2025) Grounded in

both art therapy and ecotherapy approaches, this practice invites individuals to create art in, with or from nature, by encouraging sensory engagement, emotional expression and connection to land and place. (Gulbe et al., 2025; Malboeuf-Hurtubise et al., 2024; Moula et al., 2022). Whether through gathering natural materials for creative use, painting or drawing outdoors or simply allowing the environment to inspire reflection and expression, nature-based art therapy offers a nonverbal, intuitive and embodied way for individuals, especially youth, to process complex emotions related to ecological distress (Gulbe et al., 2025; Malboeuf-Hurtubise et al., 2024; Moula et al., 2022; Naor & Mayseless, 2021). Many young people are not merely seeking strategies to manage anxiety, but they are grappling with existential questions of how to live meaningfully in the face of perceived systemic betrayal (Hickman et al., 2021). Increasingly, youth articulate sentiments that reflect a loss of trust in adult leadership and institutions, expressing not only climate-related anxiety but a broader despair over the apparent disregard for their futures. In this context, NBAT may serve as a particularly responsive modality.

Therapeutic Benefits of NBAT for Youth

While still emerging as a formal therapeutic practice, it shows promise in facilitating emotional regulation, symbolic processing and the externalization of ecological grief and moral distress (Wardle, 2025; Malboeuf-Hurtubise et al., 2024; Moula et al., 2022). Its integrative nature may help youth navigate not only the psychological impacts of the climate crisis, but also the deeper existential and relational ruptures that often accompany them.

NBAT offers young people a developmentally attuned and empowering outlet to process eco-anxiety. Engaging in artistic expression outdoors can soften internal overwhelm, reduce physiological stress and open space for emotional regulation and meaning-making (Berger & Lahad, 2010; Malboeuf-Hurtubise et al., 2024; Moula et al., 2022). By externalizing emotions through creative expression and engaging with the natural world, youth can shift from passive

distress to active, connected participation which fosters agency, emotional regulation, mindfulness and a sense of belonging (Wardle, 2025; Malboeuf-Hurtubise et al., 2021). The playful and often communal nature of this approach also aligns well with developmental needs. Moula et al. (2022) found that NBAT interventions served as an accessible and inclusive approach to engaging diverse groups of children and youth, including those who might typically show limited interest in environmental topics or formal education. These creative, nature-based activities fostered a deeper connection to the natural world, supported environmental learning and encouraged an exploration of ways to address ecological challenges (Wardle, 2025; Gulbe et al., 2025; Malboeuf-Hurtubise et al., 2021). As a result, participants demonstrated increased environmental awareness and a potential reduction in eco-anxiety.

Cultivating Ecological Identity and Environmental Stewardship

NBAT is also inherently reflective and relational. By working directly with natural elements, such as leaves, clay, stones or water, youth are reminded of their connection to the natural world and their capacity to engage with it creatively and compassionately. This deepens a sense of ecological identity, fostering not only personal healing but also a renewed commitment to environmental stewardship (Moula et al., 2022). In this way, NBAT supports both psychological resilience and environmental consciousness, offering a unique and holistic response to the mental health challenges posed by the climate crisis.

Application and Practice

In practice, NBAT may include activities such as creating art from found materials, journaling or drawing in outdoor settings, collaborative mural-making or constructing nature mandalas (Moulas et al., 2022; Malboeuf-Hurtubise, 2021; 2022). With NBAT, creative self-expression harnesses the healing qualities of art and nature to cultivate creativity, encourage a state of flow and promote playfulness and enjoyment (Gulbe et al., 2025; Moula et al., 2022).

Therapeutic programs that blend ecological and artistic practices have been shown to support youth in dealing with feelings of eco-anxiety. For example, Malboeuf-Hurtubise et al. (2021) describe a school-based intervention where children engaged in art-making outdoors as a way to process eco-emotions. Students reported increased calm and connection, alongside a greater sense of empowerment to take action.

In addition, NBAT's emphasis on using found and natural materials supports environmentally conscious practices by reducing reliance on manufactured art supplies, thereby minimizing waste and reinforcing principles of sustainability (Gulbe et al., 2025; Wardle, 2025). As part of an NBAT intervention, a youth participant was encouraged to select low-impact materials such as sea glass, feathers and wood slices to align with her environmental values. This supported her sense of agency and optimism, even amid the emotional complexity of climate-related experiences. The use of tactile, playful alternatives, such as finger painting, further encouraged emotional expression and creative engagement (Wardle, 2025).

NBAT can involve both direct and indirect forms of nature engagement, each offering unique therapeutic benefits. Direct engagement with nature in NBAT includes hands-on activities that foster a meaningful connection with natural materials and outdoor environments. Participants create diverse artworks, such as sculptures from branches, leaves or grass and use found natural or human-made objects to encourage self-reflection. Activities can also involve building miniature ecosystems like terrariums and capturing nature-focused photography to promote immersive interaction with the natural world (Gulbe et al., 2025). Indirect engagement with nature in art therapy comprises reflective and interpretive practices that cultivate ecological awareness and emotional insight. Approaches such as ecological identity mapping, nature journaling and landscape-based art-making invite participants to consider their relationship with the natural world through symbolic and narrative expression. These methods foster a deeper

sense of place, promote self-reflection and enhance emotional connection to both environment and self (Gulbe et al., 2025; Moula et al., 2022; Staples et al., 2019)

These practices are effective because they align with developmental needs. Children and adolescents may struggle to articulate eco-anxiety through traditional talk therapy, but art-making allows for symbolic, nonverbal expression of fear, grief and hopelessness (Berger & Lahad, 2010; Gulbe et al., 2025). When these expressions unfold outdoors or with natural materials, the environment itself becomes a co-regulator by offering comfort, sensory grounding and metaphorical insight (Wardle, 2025). These interventions also align well with best practices in youth mental health, as they integrate embodied experience, emotional regulation and peer connection within a setting that promotes environmental belonging (Gulbe et al., 2025; Malboeuf-Hurtubise et al., 2021).

Evidence-Based Outcomes and Implications for Practice

A growing number of empirical studies support the efficacy of nature-based expressive arts with children and adolescents. In a pilot study by Malboeuf-Hurtubise et al. (2021), elementary students participated in weekly outdoor sessions involving mindfulness and arts-based practices such as nature mandalas, sensory walks and breathing exercises outdoors. Results suggested increased well-being and pro-environmental behavior. Similarly, Wardle (2025) describes a NBAT intervention in which a young participant expressed significant distress over the environmental impact of conventional art materials. Through collaborative discussions and the intentional use of natural and recycled objects in therapy, the participant was able to align her ecological values with the creative process, which supported her emotional regulation and fostered a deeper sense of autonomy and environmental responsibility.

These interventions are particularly well-suited to eco-anxiety, which often involves existential emotional responses that are difficult to articulate, such as awe, helplessness or grief

(Ágoston et al., 2022; Cunsolo & Ellis, 2018; Pihkala, 2022). Nature-based art therapy enables youth to embody and express these emotions in a grounded, tangible way. Moreover, the creative act itself, whether sculpting with clay, composing a nature-inspired story or painting with earth pigments, can reinforce a sense of agency and connection to nature (Wardle, 2025). Engaging in creative processes outdoors can also foster mindfulness and present-moment awareness, helping youth build internal coping resources and resilience in the face of ecological uncertainty (Gulbe et al., 2025; Malboeuf-Hurtubise et al., 2021). This process not only aids emotional processing and regulation, but also fosters ecological identity, empowering youth to locate themselves within society in ways that inspire both healing and action. These insights inform the design of the nature-based art therapy group program introduced in Chapter 3, which draws directly on the theoretical, developmental and ecological principles outlined in this section.

Limitations

Effective NBAT interventions must account for both the diverse manifestations of climate-related stressors and the individual differences in how young people experience and respond to them over time (Malboeuf-Hurtubise et al., 2024). NBAT aligns well with these principles by offering flexible, responsive modalities that honour each child's unique emotional landscape while providing structured yet open-ended ways to process eco-anxiety. The benefits of combining art and nature are increasingly supported by studies in ecopsychology, creative therapies and environmental education, though the research is still in early stages (Clayton et al., 2017; Edwards et al., 2023; Gulbe et al., 2025; Rousell & Cutter-Mackenzie-Knowles, 2019).

Despite its therapeutic promise, the implementation of NBAT presents a range of logistical, psychosocial and cultural challenges. Structuring sessions to minimize client anxiety and maintain therapeutic efficacy requires careful planning, particularly when conducted in open, natural environments where group dynamics can be difficult to manage (Gulbe et al., 2025;

Jordan & Hinds, 2016). Ensuring client confidentiality and psychological safety outdoors also necessitates creative adaptations to uphold professional standards (Wardle, 2025). Additionally, financial limitations, transportation issues, physical mobility concerns and limited access to green spaces can all hinder consistent participation in NBAT (Bauden & Jachens, 2021;Wardle, 2025). Multicultural perspectives on nature must be thoughtfully considered, as individuals' relationships with natural environments are shaped by diverse cultural and historical contexts (Vecchio et al., 2022; Wardle, 2025). Varying levels of nature connectedness may influence both engagement and therapeutic outcomes, with stronger nature affiliation often associated with greater benefits (Ernst & Theimer, 2011; Wardle, 2025). Finally, safety and risk management are critical. Facilitators must be equipped with emergency protocols and first aid training. The absence of amenities such as shelter, bathrooms or seating in natural settings requires additional logistical planning to ensure physical comfort and accessibility for participants.

Finally, most interventions are rooted in Western clinical paradigms, with insufficient attention to cultural adaptation, land-based knowledge and systemic inequities in access to safe natural spaces (NCCIH, 2022; Simpson, 2017). Ongoing research and culturally responsive adaptations are essential to ensure that NBAT interventions remain accessible, ethical and effective across diverse populations and environmental contexts.

This literature review has explored the intensifying psychological impacts of climate change on young people, positioning eco-anxiety as a rational and emotionally attuned response rather than a pathological condition. The review began by examining how developmental, cognitive and emotional vulnerabilities heighten youth susceptibility to climate-related distress, particularly within educational contexts that often lack ecologically grounded supports. In response, a range of therapeutic frameworks were reviewed, including ecotherapy, expressive arts, narrative practices, Indigenous and land-based healing approaches and Nature-Based Art

Therapy (NBAT). Across these modalities, key themes emerged: the importance of emotional expression, ecological identity, relational belonging and creative engagement with the natural world. At the same time, the literature surfaced limitations related to accessibility, cultural responsiveness and the dominance of Western clinical paradigms. These gaps underscore the need for developmentally appropriate, contextually grounded and integrative responses to youth eco-anxiety. Together, these findings lay the conceptual and empirical foundation for Chapter 3, which presents an applied NBAT group program designed to support young people in processing ecological emotions, fostering resilience and reimagining their relationship to land, community and their futures.

Summary

This literature review explores the growing psychological toll of climate change on young people, with a particular focus on eco-anxiety and its implications for mental health and therapeutic intervention. Drawing from foundational and emerging scholarship, the review first outlines how youth-specific vulnerabilities intensify climate-related distress. Eco-anxiety is reframed not as a pathological condition, but as an emotionally attuned and rational response to existential environmental threats. Research highlights how emotional responses such as fear, grief, despair and hopelessness can coexist with resilience and climate activism, particularly when youth are supported in expressing and contextualizing their emotions.

The second section examines a range of therapeutic approaches for addressing eco-anxiety, including ecotherapy, expressive arts therapies and Indigenous perspectives and land-based healing. Emphasis is placed on the limitations of traditional models that lack ecological framing and the need for holistic, culturally responsive interventions. These approaches support emotional regulation, foster ecological agency and reconnect young people with supportive communities and the natural world.

The final section introduces Nature-Based Art Therapy (NBAT) as a promising intervention. Grounded in both ecotherapy and art therapy traditions, NBAT combines creative expression with immersive natural experiences to support emotional processing and ecological identity. While the emerging research base is encouraging, the review also identifies key limitations which include accessibility barriers, cultural considerations and the need for expanded empirical validation. Ultimately, this review argues that NBAT represents a developmentally appropriate, ethically grounded and climate-informed therapeutic pathway for supporting youth experiencing eco-anxiety in a climate-altered world.

Chapter 3: Summary, Recommendations and Conclusions

Summary

This Capstone project responds to the growing need for developmentally appropriate, emotionally attuned therapeutic interventions that support young people experiencing eco-anxiety. As the impacts of the climate crisis intensify, youth are increasingly burdened not only by the environmental changes themselves but by the psychological toll of growing up amidst systemic inaction and uncertainty. The purpose of this Capstone is to explore how nature-based art therapy (NBAT) can serve as a responsive and integrative intervention for youth navigating these complex emotional landscapes.

The literature review examined the psychological dimensions of eco-anxiety in children and adolescents, highlighting how their developmental, emotional and cognitive vulnerabilities shape their responses to environmental crises. Eco-anxiety was shown to manifest in a range of emotions, such as grief, fear, guilt and anger and to influence young people's sense of agency, hope and future orientation (Ágoston et al., 2022; Boivin et al., 2025; Galway & Field, 2023). In educational contexts, youth often lack spaces to process these emotions meaningfully (Edwards et al., 2023).

In response, the second half of the review turned to therapeutic interventions, with a focus on emerging practices in Nature-Based Art Therapy (NBAT). The analysis found that NBAT holds unique potential to support youth in processing eco-anxiety by fostering emotional regulation, creative expression, connection to land and pro-environmental identity development (Malboeuf-Hurtubise et al., 2021; Wardle, 2025). By incorporating natural materials and outdoor environments, NBAT also aligns with ecological principles and supports sustainability within the therapeutic process. Furthermore, its flexibility and emphasis on tangible experiences make it well suited for youth who may struggle to articulate eco-emotions verbally (Moula et al., 2022).

However, the literature also points to several limitations in both the practice and study of NBAT. There is a lack of longitudinal and empirical research evaluating its outcomes, especially with youth populations. Much of the existing scholarship is conceptual or case-based, and many interventions remain rooted in Western clinical frameworks. Structural barriers such as access to natural spaces, practitioner training and cultural relevance further complicate implementation. These gaps present opportunities for future research and practice, including the development of inclusive NBAT models that integrate Indigenous knowledge, culturally diverse understandings of connection to nature and systemic approaches to mental health equity.

Implications

The literature demonstrates that eco-anxiety is a growing and significant psychological concern for young people. This distress is closely linked to climate change's multifaceted impacts on physical health, emotional well-being, cognitive development and access to safe, supportive environments. Youth experience unique vulnerabilities due to developmental factors and limited capacities for emotional processing and regulation. At the same time, research highlights the therapeutic potential of nature-based and creative interventions. Nature connection has consistently been linked to psychological resilience and emotional regulation, while art therapy supports self-expression and trauma integration. Together, these modalities offer a compelling framework for supporting youth experiencing eco-anxiety.

Youth/Clients

The reviewed literature suggests that NBAT offers youth meaningful, developmentally aligned tools for processing the emotional burden of climate change. Through symbolic and sensory engagement, NBAT provides avenues for externalizing eco-anxious thoughts, expressing complex grief and re-establishing a sense of personal agency (Gulbe et al., 2025; Wardle, 2025). The integration of natural materials, creative expression and outdoor environments

invites play and connection, which are foundational to healthy cognitive, emotional and social development Moula et al., 2022).

Moreover, NBAT fosters a sense of belonging within the more-than-human world, which may counteract the isolation, helplessness and existential fear that often accompany eco-anxiety (Malboeuf-Hurtubise et al., 2021; Moll et al., 2022; Moula et al., 2022). Youth who participate in such practices may also cultivate a stronger environmental identity, a construct linked to increased pro-social and pro-environmental behaviours (Wardle, 2025). This identity formation can support an empowering feedback loop: as young people take action in support of the planet, they may feel less overwhelmed and more hopeful, reinforcing their sense of purpose and efficacy. These therapeutic and developmental benefits highlight the importance of offering creative, nature-connected interventions that resonate with the lived experiences of today's youth.

School Counsellors/Mental Health Practitioners

School counsellors and mental health practitioners play a critical role in supporting youth who are grappling with the psychological impacts of climate change. The literature reviewed suggests that NBAT offers a promising, developmentally appropriate modality that extends beyond traditional therapeutic approaches such as cognitive-behavioral therapy (CBT) (Gulbe et al., 2025; Wardle, 2025). For many young people, particularly those who may struggle to articulate ecological grief verbally, NBAT creates space for nonverbal expression, emotional regulation and connection. This is especially relevant in school contexts, where counsellors are increasingly called upon to address complex emotional needs within time-limited and resource-constrained contexts.

NBAT's emphasis on sensory integration, creativity and relationship to nature aligns well with trauma-informed, holistic approaches to care. By engaging with natural materials and

outdoor spaces, practitioners can facilitate grounding experiences that support nervous system regulation and psychological safety (Malboeuf-Hurtubise et al., 2021; Wardle, 2025). In addition, the integrative nature of NBAT allows for adaptation across cultural and developmental contexts, offering flexibility for diverse student populations (Gulbe et al., 2025). For practitioners seeking to respond to eco-anxiety with interventions that are both therapeutic and empowering, NBAT provides a framework that affirms the validity of youth climate distress while fostering resilience and agency. Integrating these approaches into school-based mental health services may expand the range of tools available to educators and mental health practitioners and increase accessibility to supportive, climate-informed care.

Educators/School Context

The findings of this literature review hold significant implications for educators and school systems seeking to support students' emotional wellbeing in the face of the climate crisis. As youth increasingly bring eco-anxiety into the classroom, often silently, teachers are uniquely positioned to notice early signs of distress and to foster environments that promote emotional safety and engagement (Léger-Goodes et al., 2022; Rousell & Cutter-Mackenzie-Knowles, 2019)). NBAT, while traditionally situated within therapeutic contexts, also offers valuable pedagogical insights for integrating creative, tangible and nature-connected practices into general classroom settings (Wardle, 2025). Such practices can complement social-emotional learning (SEL) initiatives and promote a more holistic, relational model of education that attends to both students' inner worlds and their ecological realities (Baker et al., 2021; Marks et al., 2023).

Parents/Caregivers

The implications of this review extend meaningfully to parents and caregivers, who serve as primary emotional supports and ecological role models in the lives of youth. As young people encounter increasing climate-related distress, family systems often absorb and reflect this

emotional burden (Baker et al., 2021; Hickman, 2024). NBAT offers parents and caregivers developmentally appropriate tools for supporting their children's eco-anxiety in ways that are expressive and relational. By engaging in creative nature-based activities together, such as art-making with natural materials, mindful time outdoors or shared storytelling, families can co-regulate and strengthen their sense of connection with one another and with the natural world. Moreover, when caregivers are equipped with accessible, non-pathologizing strategies for addressing climate-related distress, they are better able to validate their children's concerns while fostering a sense of agency and hope (Pihkala, 2022; Ojala, 2012; 2015. These practices can also reinforce intergenerational communication around environmental issues, encouraging values of care, stewardship and resilience.

Policy Makers/Institutions

At the institutional and policy level, this research highlights the pressing need for climate-informed mental health strategies that are accessible, culturally responsive and integrated across educational and therapeutic systems. As the psychological impacts of climate change on youth become increasingly visible, policymakers must recognize eco-anxiety as a legitimate and widespread mental health concern that requires systemic support (Hickman et al., 2021; Cunsolo & Ellis, 2018). Incorporating NBAT into educational, health, and community-based programming aligns with broader policy goals related to environmental education and mental health equity. For instance, initiatives that fund outdoor learning, creative arts programming and interdisciplinary mental health services can expand the availability of interventions that are developmentally appropriate and culturally grounded (Marks et al., 2023; Rousell & Cutter-Mackenzie-Knowles, 2019).

NBAT's emphasis on creative and relational healing aligns with several cross-sectoral goals, including youth mental health promotion, climate adaptation and reconciliation efforts

with Indigenous communities (Vecchio et al., 2022). Institutions that fund and regulate youth programming can support NBAT by allocating resources to outdoor learning, professional development and interdisciplinary collaboration between educators, counsellors and community-based practitioners. In doing so, they help build more resilient, climate-conscious systems of care that respond not only to immediate mental health needs, but also to the long-term wellbeing of youth and their communities.

Equity and Justice Considerations

Equity and justice considerations are critical in the design and implementation of NBAT interventions. The literature underscores that not all youth have equitable access to safe green spaces, nor do all cultural communities relate to land and nature in the same way (Vecchio et al., 2022; Wardle, 2025). Interventions must therefore be grounded in a recognition of social and structural differences. Practitioners should approach this work with cultural humility, ensuring that programs are inclusive, responsive and co-created with the communities they aim to serve. This includes avoiding the appropriation of Indigenous knowledge systems while respectfully learning from their relational, land-based worldviews (Chrona, 2022). Programs must also account for the compounded effects of climate vulnerability and systemic under-resourcing, particularly in marginalized and racialized communities (Bennett & Friel, 2014; Vecchio et al., 2022). Culturally safe, economically accessible and community-embedded approaches are essential to ensure that youth from diverse backgrounds can meaningfully participate in and benefit from these interventions. Integrating principles of environmental justice into practice means not only addressing individual mental health, but also advocating for broader systemic changes that promote wellbeing, inclusion and ecological integrity for all young people.

Recommendations

Building on the findings of this literature review, this section outlines key recommendations for addressing eco-anxiety in youth through nature-based art therapy (NBAT). While further research and evaluation are needed, the literature strongly supports the potential of integrative, creative and nature-connected interventions to foster emotional resilience and ecological engagement among adolescents (Gulbe et al., 2025; Wardle, 2025). The research highlights a growing need for developmentally appropriate approaches that support young people in processing climate-related distress. In response, a sample 8-week NBAT group program has been developed as a practical framework for implementation in school or community settings. This program is specifically designed to help youth aged 12–15 explore and express eco-emotions, foster emotional resilience and strengthen their sense of connection to self, others and the natural world. Grounded in principles of expressive arts therapy, narrative therapy, ecopsychology and trauma-informed practice, the group model emphasizes sensory engagement, creative expression and peer support as protective factors against eco-anxiety.

The following section offers a brief overview of the program's rationale, structure and guiding principles. A detailed session-by-session outline is provided in **Appendix A**.

Program Overview

The proposed 8-week group program is designed to offer a supportive, arts-based environment for youth experiencing eco-anxiety. Each session blends nature-based experiences with expressive artmaking, providing participants with opportunities to externalize complex emotions, engage in reflective dialogue and reframe their relationship with the climate crisis through creativity and connection (Gulbe et al., 2025; Wardle, 2025). The program follows a trauma-informed, strengths-based model, with sessions structured to gradually build safety, emotional expression and ecological awareness. Themes progress from grounding and

relationship-building to exploring grief, fostering resilience and cultivating hope and a sense of agency. Activities are flexible and adaptable, allowing facilitators to respond to the unique needs of participants.

Sessions are intended to be co-facilitated by a trained mental health practitioner and an educator or community leader with experience in creative or outdoor programming. While designed for delivery in schools, the structure can be adapted for community centres or nature-based youth programs. The overall aim is not only to address eco-anxiety, but to nurture a more empowered and environmentally engaged generation.

Theoretical Foundations

This program is grounded in an interdisciplinary blend of expressive arts therapy and ecopsychology. Expressive arts therapy emphasizes the healing potential of creativity, particularly in helping young people externalize and process emotions that may be difficult to articulate verbally (Malboeuf-Hurtubise et al., 2021). Ecopsychology adds a relational dimension, asserting that human well-being is inherently linked to the health of the natural world (Jordan & Hinds, 2022). Together, these frameworks support an intervention model that addresses both the interpersonal and collective dimensions of eco-anxiety.

Program Structure

The program is designed as a progressive, 8-week arc that moves from emotional grounding to expressive exploration and, ultimately, toward integration and empowerment. Each 60-minute session follows a consistent rhythm: opening check-in, grounding activity, core creative/nature-based task, group reflection/dialogue and closing ritual. Early sessions emphasize relationship-building, emotional safety and sensory awareness. Midway through the program, participants begin engaging more directly with themes of grief, fear and uncertainty related to climate change. The final weeks shift toward fostering resilience, hope and agency through

collaborative art-making and visioning exercises. Flexibility is embedded throughout, allowing facilitators to respond to the group's emerging needs.

Narrative and storytelling practices are intentionally woven throughout the program as tools for meaning-making and identity development. Building on research demonstrating the efficacy of story-telling and narrative therapy for youth navigating eco-anxiety (Baudon & Jachens, 2021; Marks et al., 2023), the sessions incorporate creative writing, metaphor-based art, visual storytelling and story circle activities to help participants re-author their relationship with the natural world and imagine futures grounded in care, agency and ecological belonging (Malboeuf-Hurtubise et al., 2021, 2024; Gunawardena & Koivula, 2023). These activities also foster peer connection and the co-construction of hopeful, collective narratives (Ojala, 2012, 2019).

Facilitation and Setting

Effective facilitation requires a team approach that combines clinical sensitivity with educational or creative expertise. Ideally, sessions are co-led by a mental health professional and a teacher, youth worker or outdoor educator familiar with group dynamics and creative facilitation. Group size should range from 6 to 10 participants to ensure emotional safety and depth of engagement. Whenever possible, sessions should be held in outdoor or semi-natural settings that allow for multisensory engagement with the environment. When outdoor access is limited, natural materials (ex. plants, stones, soil, water, etc.) can be incorporated indoors to retain an element of environmental connection. Art supplies should be diverse but accessible, encouraging open-ended expression rather than product-focused outcomes.

Cultural and Ethical Considerations

Cultural responsiveness and equity must be central to the program's design and delivery. Not all youth have equal access to green space, nor do they share the same cultural relationships

with land, art or emotional expression. Facilitators must be attentive to these differences and create spaces of cultural safety. While the program may draw inspiration from Indigenous land-based worldviews, care must be taken to avoid appropriation. Collaborating with local knowledge holders and situating activities in contextually respectful ways is essential. Economic accessibility is also a key consideration: programs should be offered at no cost to participants and supported by schools or community grants whenever possible. Trauma-informed practice should guide all interactions, with built-in opportunities for choice, regulation and care.

Anticipated Outcomes

Youth who participate in this program may experience a range of emotional and psychosocial benefits. These include increased emotional awareness related to eco-anxiety; reduced feelings of isolation or helplessness; strengthened peer relationships; and an expanded sense of agency in relation to environmental issues. Engaging with the natural world through art can also foster a deepened ecological identity, which has been linked to pro-environmental behavior and long-term psychological resilience (Malboeuf-Hurtubise et al., 2021; Wardle, 2025). While outcomes will vary, the overarching goal is to support youth in navigating climate-related emotions in ways that are empowering, connected and hopeful.

Application Within a School Counselling Context

As a school counsellor working within a middle school setting, the implementation of NBAT must consider both the opportunities and the constraints inherent in public education systems. While the program's emphasis on sensory engagement, emotional expression and peer connection aligns well with the developmental needs of students aged 12–15, practical challenges may arise. These include scheduling limitations within rigid timetables, limited access to outdoor learning spaces and competing demands on students' time due to academic pressures or extracurricular commitments. Additionally, school-wide awareness of eco-anxiety as a

legitimate emotional experience is still emerging; as such, advocacy may be required to gain administrative and parental buy-in. Despite these challenges, the program's flexible structure, including the use of low-cost, found materials and adaptable facilitation models, makes it well-suited to a school-based context. It could be offered as part of a Tier 2 response within a multi-tiered system of support, targeting students who show signs of climate-related stress or disengagement. By embedding NBAT within school counselling services, the program not only addresses emotional needs but also contributes to a broader culture of environmental care, student agency and mental health promotion within the school community.

Limitations and Adaptations

While this model offers a flexible and holistic approach, it is not a substitute for individual therapy in cases of acute mental health needs. The success of the program is also contingent on the facilitators' skills, the group's cohesion and the consistency of access to appropriate space and materials. Adaptations may be needed for different age groups, cultural contexts or neurodiverse learners. For example, younger participants may benefit from shorter sessions with more movement-based activities, while programs in urban areas may require creative re-imaginings of "nature" using parks, gardens or indoor elements. Evaluation tools and reflective practices should be built in to assess impact and inform ongoing refinement.

Appendix Reference

A full outline of the 8-week program, including session titles, thematic goals, sample activities and materials, is provided in **Appendix A**. This detailed plan is intended as a flexible guide rather than a prescriptive curriculum and can be adapted based on the needs and capacities of each unique group and setting.

Conclusions

This Capstone project set out to explore how Nature-Based Art Therapy (NBAT) can serve as a meaningful, developmentally appropriate intervention for youth experiencing eco-anxiety. Grounded in an interdisciplinary review of literature spanning psychology, art therapy, ecotherapy and education, the project identified both the urgent mental health needs of youth in a climate-altered world and the creative, nature-connected approaches that hold promise for supporting them. The proposed 8-week NBAT group program offers a practical response: a structured yet flexible model that integrates emotional processing, ecological connection and peer support through creative expression in and with nature.

By incorporating storytelling, narrative therapy and nature-based creative practices, the program provides a holistic framework for youth to externalize complex emotions and reimagine their relationship with the natural world. Its design reflects both the emerging scholarship on climate-related distress and the real-world considerations of implementing such programming in school and community settings. As a school counsellor, the program also holds particular relevance for addressing gaps in mental health support and expanding the available tools for working with students who may struggle to articulate ecological grief through conventional therapy models.

Looking forward, this work contributes to a growing movement toward climate-informed, culturally responsive models of youth mental health. While further research, training and systemic support are necessary to realize the full potential of NBAT, this Capstone affirms its value as a timely and ethically grounded approach. In a moment defined by ecological uncertainty, supporting young people in expressing their emotional truths, reconnecting with nature and building hopeful, resilient identities is not only therapeutic, it is essential.

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Appendix A

Week	Theme	Objectives	Sample Activities	Required Materials	Creative Prompt
1	*Grounding in Place*	• Establish group safety & norms • Attune to natural surroundings • Build sensory awareness	• Grounding meditation outdoors • Nature walk with mindful noticing • Create Land Mandalas using found objects	• Natural materials (sticks, leaves, stones)	"Create a mandala using natural materials that reflects how you feel in this place, right now. What textures, shapes or colors match your mood or energy?"
2	*Understanding Eco-Anxiety*	• Explore personal responses to climate change • Normalize climate-related emotions • Build emotional vocabulary	• Eco-emotion collage • Group discussion	• Recycled magazine • Glue • Scissors • Paper • Markers	"Using images, colors, and words, create a collage that expresses how climate change makes you feel. You might show your fears, your hopes, your questions or even the confusion in between."
3	*Mourning Ecological Loss*	• Make space for ecological grief and uncertainty • Normalize difficult feelings • Foster peer empathy	• Clay or charcoal "loss sculptures" • Storytelling circle on what's been lost or is feared to be lost	• Clay • Charcoal • Natural dye • story prompts	"Create a piece to honour something in nature you miss or worry about losing."

4	*Channeling anger & responding constructively*	• Validate and process anger constructively • Explore agency	• Expressive poster creation • Paint with natural brushes using full-body gestures	• Large poster paper • Paint • Natural brushes	"Paint what your voice would say to people in power."
5	*Reconnection & Belonging*	• Explore reciprocity and place-based identity • Connect with local community leader or elders if possible	• Mindful observation and journaling • Write gratitude letters to a natural element	• Paper • Envelope • Pens, pencils • Journal	"If this land could speak, what would it say to us?" "Choose something in nature and write a letter to express your gratitude towards it"
6	*Agency & Empowerment*	• Create sense of personal agency • Create sense of collective empowerment	• Vision tree collage of future hopes and actions • group mural on environmental stewardship	• Poster board • Markers • Paints • recycled paper	"What does a hopeful future look like?"
7	*Hope & Possibility*	• Reflect on growth • Explore how personal values connect to the wider world	• Create eco-symbol or personal crest	• Found natural materials (stones, wood, feathers) • Natural fabric	"If you were a guardian of the Earth, what would be at the heart of your crest? What do you stand for? What do you protect?"
8	*Closure: Planting seeds of hope*	• Celebrate growth and share insights • Provide closure	• Gallery walk • Reflection circle • Planting ritual	• Past sessions artwork • Seeds • Small pots or community garden	"What do you want to carry forward from our time together?"

Facilitator Notes

- **Begin each session with a grounding exercise:**
  - Examples: mindful breathing, sensory nature observation, listening to natural sounds or a short walk in silence.
  - This helps settle energy and create a safe transition into the therapeutic space.
- **Use trauma-informed language and practices**
  - Avoid pathologizing symptoms or using overly clinical terms.
  - Acknowledge all emotional responses as valid (e.g., "There's no right or wrong way to feel about this.").
  - Prioritize safety, predictability and consent in all activities.
- **Encourage respectful sharing, but never force participation**
  - Always frame activities as invitations.
  - Offer multiple modes of engagement (e.g., silent reflection, visual art, movement or discussion).
  - Create space for quiet participation (e.g., drawing instead of speaking during group reflections).
- **Responding to emotional overwhelm (or feelings of despair, guilt or hopelessness)**
  - **Name the bigger context:**
    - Gently remind students that their feelings are connected to *a systemic problem, not a personal failure*. (e.g., "You're feeling this way because you care and that's a strength, not a weakness.")
  - **Introduce creative expression as a way through**
    - Offer the option to express difficult emotions through art instead of verbal processing. (e.g., "If your feeling had a shape or color, what might it look like?")
  - **Reflect agency and values**

    - Help students identify small, meaningful ways they *already* care or act in alignment with their values. ("What's something you do, even something tiny, that reflects your love for the Earth?")
  - **Use peer support when appropriate**
    - With group agreements in place, invite gentle witnessing from others (e.g., "Has anyone else ever felt something like this?").
  - **Offer grounding strategies**
    - Focused breathing
    - Touching a grounding object (stone, pinecone, leaf, etc.)
    - Taking a quiet moment away from the group
- **Adjusting to the Group's energy**
  - If energy is high or restless:
    - Incorporate movement (e.g., collaborative outdoor art, walking-based prompts or outdoor activities)
    - Use tactile materials (e.g., nature murals, clay sculptures)
  - If energy is low or heavy
    - Offer calm, reflective activities (e.g., nature journaling, creating nature mandalas)
    - Use music or story-telling to ease into emotional expression

Required Materials List

- Art supplies: paper, markers, paint, scissors, glue, clay
- Access to natural materials (stones, leaves, feathers, flower petals, bark, etc.) - bring items if not available onsite
- Journals and pens

- Portable mats or cushions
- Seed packets and planting supplies (Week 8)

Considerations

- **Accessibility**: Ensure physical and sensory accessibility; offer alternatives for students with mobility or sensory sensitivities
- **Consent & Safety**: Parental consent required; trauma-informed protocols in place; allow opt-out opportunities
- **Weather Plan**: Indoor alternative with natural objects available if weather prevents outdoor work

Facilitator Preparation: Training in expressive arts therapy, nature-based practices and trauma-informed care is essential