**Role of Nature-Based Therapies in Alleviating Eco-Anxiety and Improving Mental Health: A Comprehensive Review**

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**Abstract**

In recent years, the adverse effects of climate change and environmental degradation have increasingly impacted individuals' mental well-being, giving rise to a phenomenon known as eco-anxiety. This study explores the emerging field of nature-based therapies and their potential in mitigating eco-anxiety while enhancing overall mental health. In existing literatures various nature-based therapeutic modalities, including ecotherapy, wilderness therapy, horticultural therapy, and nature-based mindfulness interventions, highlighting their effectiveness in addressing eco-anxiety symptoms and promoting psychological resilience. Nature-based therapies offer a unique approach by reconnecting individuals with the natural world, fostering a sense of belonging, and interconnectedness. Through experiential engagement with natural environments, individuals often experience reduced stress levels, improved mood, enhanced cognitive function, and increased emotional regulation. Moreover, nature-based interventions provide opportunities for eco-education and advocacy, empowering individuals to adopt sustainable lifestyle practices and engage in environmental conservation efforts, thereby fostering a sense of agency and purpose. This paper highlights the importance of integrating nature-based therapies into mental health treatment frameworks, particularly in the context of climate-induced distress. In conclusion, nature-based therapies represent a promising adjunctive approach for addressing eco-anxiety and promoting holistic mental health, offering both individual and societal benefits in the face of environmental challenges.

**Key Words -** Eco-anxiety, mental health, Environment, Climate, Earth-centered Therapy, Eco-Education.

**Introduction**

The global climate crisis and environmental degradation have become pressing issues of our time, not only posing threats to physical ecosystems but also significantly impacting human mental health. In recent years, a growing body of research has highlighted the psychological consequences of climate change, including increased levels of stress, anxiety, depression, and a sense of loss or hopelessness. One prominent manifestation of this psychological distress is eco-anxiety, defined as a chronic fear of environmental doom or concern about the future state of the planet (APA). Youth experiences eco anxiety when they are aware about climate changes and they are emotionally impacted if they belong to indigenous communities or strongly lies on land (Terra Léger-Goodes et.al 2022).Maladaptive eco-anxiety presents even in people with no direct experiences of ecological crisis, it causes a crisis of hope regarding the future, a reduction in quality of life, and can lead to an inability to take positive action (Dailianis, Anastasia 2021).As the prevalence of eco-anxiety continues to rise, there is an urgent need for innovative approaches to address this issue and promote mental well-being in the face of environmental challenges. Nature-based therapies have emerged as a promising avenue for intervention, leveraging the healing power of the natural world to alleviate eco-anxiety symptoms and enhance overall psychological resilience. The increased awareness about environmental issues has resulted in an increase in eco-anxiety, which is a persistent fear of environmental disaster or concern about the planet's future state. This psychological discomfort, compounded by the global climate crisis and environmental deterioration, has serious consequences for mental health. Despite this turbulence, nature-based therapies have emerged as a promising path for intervention, providing a comprehensive approach to relieving eco-anxiety symptoms and improving overall psychological resilience.

Education related to environment is also play a very important role in coping eco anxiety but for this environmental educators need organizational and peer support both in relation to their own diﬃcult emotions and in order to develop emotional skills in their work. Educators should ﬁrst practice self-reﬂection about eco-anxiety, after which they have many possibilities to help their audiences to develop emotional resilience (Panu Pihkala,2020). Person-Centred approaches to facilitate a realisation of one’s embeddedness in their ecosystems and a subsequent increase in one’s awareness of the environment and sustainability (Chatalos,2013). reported an increased awareness of self and environment following nature-based therapy (Sidenius,2020). Indian philosophy has traditionally highlighted the idea that humans are an essential component of nature, coexisting in a mutually beneficial partnership. In ancient times, Indians handled natural resources with caution, regarding nature as holy rather than something to exploit for personal advantage. However, colonial influence altered this perspective toward human-centered thinking, resulting in resource exploitation without respect for the environment. Combined with globalization and technology advancements, has separated many people from environment, resulting in ecological imbalance and maybe contributing to an increase in mental health disorders. Recent research suggests that reconnecting with nature can increase well-being, but it frequently takes a major event, such as a pandemic, to remind us of the value of our relationship with the natural world and the advantages it provides to our mental and emotional health.

**Nature-Based Therapeutic Modalities**

Nature-based therapies include a wide range of therapeutic techniques that make interactions with the natural world a fundamental component of treatment. Eco-therapy, wilderness therapy, horticulture therapy, and nature-based mindfulness interventions are all distinct approaches to reconnecting people with nature and enhancing mental health. Eco-therapy, also known as green therapy or Earth-Centered Therapy, is a collection of planned therapeutic activities that take place in natural environments such as woods, parks, or gardens. Ample and strong data suggests that connecting with nature has a significant impact not just on well-being but also on general health throughout one's life. According to research, people who have strong contacts with ecosystems and the environment during their childhood live longer and have a higher quality of life. This natural "therapy" increases their physical activity, strengthens their social relationships, encourages involvement with nature, and promotes healthy eating choices. Even in adults, such encounters frequently result in lower levels of blood C-reactive proteins and cortisol, indicating a favourable impact on health. These activities could include guided nature walks, outdoor group therapy sessions, or wilderness retreats that promote emotional expression, self-reflection, and personal growth. Eco-therapy generates feelings of peace, quiet, and rebirth by immersing people in natural settings. Wilderness therapy expands on this concept by using extended outdoor trips as a therapeutic intervention for those dealing with mental health issues. Participants participate in activities such as trekking, camping, rock climbing, and survival skills training under the supervision of experienced therapists, which promote teamwork, self-reliance, and resilience in the face of hardship. The natural environment acts as both a figurative mirror for human reflection and a source of motivation to overcome barriers and embrace change. Horticultural therapy uses the therapeutic benefits of gardening and plant-based activities to improve physical, emotional, and cognitive health. Participants engage in hands-on gardening activities such as planting, nurturing, and harvesting fruits, vegetables, or flowers, as well as mindfulness and sensory experiences. Horticultural therapy programs are frequently adopted in psychiatric settings, schools, prisons, and community gardens, allowing people to reconnect with the natural world and improve their mental health via meaningful interactions with plants and soil. Nature-based mindfulness interventions blend mindfulness meditation techniques with outdoor activities to promote present-moment awareness and emotional regulation. Participants perform guided meditation, mindful movement exercises, and sensory awareness activities while immersed in natural settings such as forests, beaches, or mountains. Nature-based mindfulness interventions enhance relaxation, stress reduction, and psychological well-being by directing attention to the surroundings' sights, sounds, smells, and textures.

**Effectiveness of Nature-Based Therapies**

According to research findings, nature-based therapies are extremely successful at reducing eco-anxiety symptoms and improving overall mental health outcomes. Studies have demonstrated that exposure to natural surroundings can significantly reduce stress hormone levels, heart rate variability, and self-reported anxiety levels, as well as increase mood, attentiveness, and cognitive function.

Furthermore, nature-based therapies have been shown to improve feelings of connection to nature, promote pro-environmental attitudes and actions, and raise levels of ecological awareness and environmental stewardship. Nature-based therapies empower people to be agents of positive change and advocates for environmental sustainability by instilling a greater awareness for the natural world and its intrinsic value.

**Eco-Therapy**

Eco-therapy, also known as green therapy or Earth-centered Therapy, entails structured therapeutic activities in natural settings such as forests, parks, or gardens. Similarly, wilderness therapy employs extended outdoor adventures to encourage personal development and emotional rehabilitation. These therapies immerse people in natural environments, establishing a sense of connection to the land while also encouraging feelings of tranquillity, renewal, and resilience.

**Integration into Mental Health Treatment Frameworks**

Given the increasing frequency of eco-anxiety and its negative impact on mental health, there is an urgent need to incorporate nature-based therapies into mainstream mental health treatment paradigms. Integrating these interventions into clinical practice allows mental health providers to provide holistic and sustainable ways to managing eco-anxiety and fostering psychological resilience in individuals and communities. Furthermore, incorporating nature-based therapies into mental health care settings might assist minimize dependency on pharmacological interventions and standard talk therapy approaches, providing cost-effective and culturally relevant options for people of different back grounds. By utilizing the healing power of the natural environment, mental health practitioners can adapt therapies to fit the specific needs and preferences of each client, thereby increasing treatment participation and efficacy.

**Review of Literature**

* **Léger-Goodes et.al (2022) Eco-anxiety in children: A scoping review of the mental health impacts of the awareness of climate change.** This study revealed both maladaptive responses (e.g., denial) and adaptive responses (e.g., constructive hope) as coping mechanisms utilized by children. Preliminary recommendations for parents, teachers, educators, mental health care providers, school systems, adults, and individuals in positions of authority include incorporating age-appropriate climate education into school curricula, acknowledging, and addressing the emotional experiences of young people, and fostering healthy coping strategies through empowerment. Study was conducted by using keywords related to eco-anxiety, climate change, and children (aged <18 years) to search five databases. A descriptive-analytical approach was utilized to organize the data extracted from the literature, resulting in the inclusion of eighteen articles in the final analysis.
* **Panu Pihkala(2020)Eco-Anxiety and Environmental Education.** This research has dual objectives. Firstly, it aims to delve deeper into the understanding of eco-anxiety, particularly concerning its connection to environmental education. Additionally, it seeks to inspire ideas for improving institutional and educational approaches to effectively address and navigate these instances of eco-anxiety. The study highlights that eco-anxiety is a significant and multifaceted concept, encompassing various manifestations, some of which may spur action while others may result in inaction. Moreover, the umbrella term of eco-anxiety covers a range of emotions and psychological states, including grief, guilt, depression, and enthusiasm. Recognizing this complexity is essential for environmental educators.
* **AnastasiaT.Dailianis(2020). Eco-anxiety-A scoping review towards a clinical conceptualisation and therapeutic approach.** This study explores eco-anxiety, suggesting it affects individuals regardless of direct exposure to ecological crises, leading to hopelessness and functional impairment. It can be conceptualized within frameworks of trauma, stress, or grief. Therapeutic interventions focus on resilience, coping skills, and systemic changes in mental health care.
* **Meabh Bonham-Corcoran, Alexandra Armstrong, Amy O’Brian, Amy Cassidy, Niall Turner (2022). The Benefits of nature-based therapy for the individual and the environment: An integrative review).** Nature-based therapies, including Eco-therapy, forest therapy and horticulture therapy, offer physiological benefits such as reduced heart rate and cortisol levels. While empirical research supporting these benefits is limited, studies suggest an increased awareness of self and environment following nature-based therapy. This integrative review highlights the potential of nature-based therapies for individuals and the environment.
* **Pauline Baudon and Liza Jachens (2021).** **A Scoping Review of Interventions for the Treatment of Eco-Anxiety.** This study emphasized a range of interventions applicable to both individual and group, targeting various facets of personal well-being, spanning from internal cognitive functions to interpersonal bonds through sharing and rituals, as well as involvement with nature. It stressed the importance of holistic, multifaceted approaches influenced by grief, particularly emphasizing eco-anxiety-focused group sessions.

**Conclusion**

Nature-based therapies represent a promising adjunctive approach for addressing eco-anxiety and promoting holistic mental health in the face of environmental challenges. By reconnecting individuals with the natural world, fostering a sense of belonging and interconnectedness, and empowering them to become stewards of the Earth, these interventions offer both individual and societal benefits in the pursuit of sustainable well-being. Moving forward, continued research, education, and advocacy efforts are needed to raise awareness about the therapeutic potential of nature and to ensure equitable access to nature-based interventions for all individuals, regardless of socioeconomic status or geographic location. By harnessing the healing power of the natural world, we can cultivate resilience, restore balance, and foster a deeper sense of harmony within ourselves and the planet we call home. The growth of eco-anxiety during the global climate catastrophe highlights the important link between environmental concerns and mental health. Nature-based therapies are a viable approach to reducing eco-anxiety and improving overall psychological resilience in individuals and communities. These therapies, which include eco-therapy, wilderness therapy, horticultural therapy, and nature-based mindfulness interventions, use the healing power of the natural world to reduce stress, anxiety, and depression while also promoting connection to nature and pro-environmental attitudes and actions. Nature-based therapies have been shown in studies to be helpful at reducing eco-anxiety symptoms, improving mental health outcomes, and increasing ecological awareness. Integrating these therapies into established mental health treatment frameworks allows practitioners to provide holistic and long-term methods to controlling eco-anxiety. Incorporating nature-based therapies into clinical practice gives cost-effective and culturally relevant solutions for people from various backgrounds, lowering dependency on pharmacological interventions and standard talk therapy methods. Finally, by utilizing the therapeutic potential of the natural environment, mental health clinicians can empower individuals to become environmental activists while also supporting their mental and emotional well-being. As we continue to tackle the problems posed by climate change and environmental degradation, nature-based therapies offer a great tool for developing resilience, healing, and connectedness to the natural world.

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