



Article

A Critique of Conceptual Frameworks and Models Applied in Climate Change-Driven Eco-Anxiety Research Focusing on Young Adults in OECD Countries: Guidelines for a Theoretical Trajectory of Future Eco-Anxiety Research

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Highlights

Public health relevance—How does this work relate to a public health issue?

- Eco-anxiety reflects climate-related psychological distress among young adults, a growing mental health concern in high-income, climate-exposed OECD settings such as Australia, placing it squarely within the areas of population mental health and wellbeing in public health.
- The paper focuses on how climate and ecological crises are experienced emotionally and cognitively by young adults, directly linking environmental risk, social determinants, and mental health outcomes covering core domains of environmental and public health.

Public health significance—Why is this work of significance to public health?

- Conceptual fragmentation around eco-anxiety (conflicting definitions, unclear mechanisms) currently undermines reliable measurement, surveillance, and evaluation of climate-related distress in populations, limiting evidence-based public health responses.
- By critiquing and organising existing frameworks into a clear typology and proposing a more coherent theoretical trajectory, the work strengthens the conceptual foundation needed for robust epidemiological studies, intervention design, and policy development in climate-related mental health.

Public health implications—What are the key implications or messages for practitioners, policy makers and/or researchers in public health?

- Practitioners and policy makers are encouraged to treat eco-anxiety as a multifaceted phenomenon (emotional, cognitive, relational, and sociopolitical) rather than only as a clinical symptom, which supports more nuanced prevention, support, and communication strategies for young adults.
- Researchers and policy actors are guided to adopt pluralistic, context-sensitive, and mixed-methods approaches that incorporate developmental specificity, cross-cultural and Indigenous perspectives, and the roles of digital media, historical injustice, and policy, thereby improving the design and targeting of public health interventions in climate and mental health.



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Abstract

Eco-anxiety, commonly known as distress relating to perceived climate and ecological crises, is increasingly reported among young people, particularly in high-income and highly climate-exposed contexts such as Australia and other OECD countries. While empirical research on eco-anxiety has expanded rapidly, the underlying conceptual and theoretical frameworks remain fragmented, with limited consensus on definitions, mechanisms, and normative implications. This systematic conceptual review synthesises and critically evaluates the theoretical and conceptual models used to study eco-anxiety and related constructs among young adults in Australia and across OECD nations. By conducting a systematic search of multidisciplinary databases, the paper explores English-language studies published up to March 2026 that explicitly applied, developed, or implied conceptual frameworks of eco-anxiety or climate change anxiety in young adult samples. A broad array of models are grouped into a typology of seven families: (1) clinical and psychopathology-oriented models, (2) environmental attitudes and concern models, (3) risk perception and appraisal models, (4) existential and phenomenological frameworks, (5) socio-ecological and political-economy models, (6) coping and resilience frameworks, and (7) integrative and emergent eco-anxiety-specific frameworks. Across these families, eco-anxiety is variously conceptualised as a maladaptive symptom, a rational moral emotion, a driver of climate engagement, or a sociopolitical affect rooted in structural injustice. Major gaps include conflicting definitions, limited attention to developmental specificity in young adulthood, sparse cross-cultural and Indigenous perspectives in the Australian context, and insufficient theorisation of digital media, colonial histories, and policy in shaping eco-anxiety. The paper proposes a novel conceptual typology that locates eco-anxiety at the intersection of emotional, cognitive, relational, and sociopolitical processes. A future research trajectory underpinned by pragmatic theoretical bases that prioritise pluralistic, context-sensitive models and mixed-methods designs is suggested. Implications for measurement, intervention, and climate and mental health policy are discussed, with particular attention to young adults in Australia and OECD settings.

Keywords: eco-anxiety; climate change; young adults; OECD; Australia; critique of conceptual frameworks

1. Introduction

1.1. *Eco-Anxiety and Young Adults*

The climate and environmental crises are increasingly recognised as existential threats to human survival [1–3] and as significant drivers of mental health burdens across the globe [4,5]. Intensifying and more frequent extreme weather events, together with anticipated long-term disruptions to living conditions, give rise to substantial anxiety and a range of other distressing emotions, even among individuals who have not yet been directly affected [4,5]. Within this context, eco-anxiety has been defined as anxiety focused on the potentially devastating consequences of the climate and environmental crises for life on Earth [6–8].

Eco-anxiety is generally understood as an umbrella construct that encompasses “climate change anxiety,” referring to anxiety specifically related to anthropogenic climate change [9,10], as well as anxiety about a broader range of environmental calamities that may or may not be directly attributable to climate change, including the destruction of entire ecosystems, the loss of plant and animal species, global pollution, and deforestation [7].

Eco-anxiety has been defined as a sociopsychological state of fluctuating worry, distress, and apprehension in response to actual and anticipated environmental changes and perceived inadequacy of societal responses [8,9,11,12]. It is commonly distinguished from general anxiety by its specific focus on environmental threats and its dual value-laden and political dimensions [4,9,12]. However, recent reviews note that there is limited consensus on what eco-anxiety is, and how it should be differentiated from related constructs such as environmental concern, worry, fear, grief, or depression [11–13].

Young people across the globe report high levels of worry, fear, anger, guilt, and helplessness about climate change and ecological degradation [4,8,11,12]. A large international survey of 10,000 16–25-year-olds in ten countries found that nearly 60% were “very” or “extremely” worried about climate change, and over 45% reported that climate-related emotions negatively affected their daily functioning [4]. In Australia, media reports and expert commentary suggest that approximately two-thirds of young Australians feel that eco-anxiety affects their mental health and outlook on the future [14–18]. Policy-oriented analyses similarly highlight that youth aged 18–35 show heightened psychological responses to climate threats, including anxiety, pessimism, and sleep disturbance [19,20].

1.2. Rationale and Significance

Given growing policy, clinical, and public interest, conceptual clarity around eco-anxiety has important implications for assessment, intervention, and communication with young adults [11,21,22]. Clinical discourse sometimes frames eco-anxiety as a potential emerging disorder, while many scholars caution against medicalising legitimate moral and political emotions [8,12,23]. The way eco-anxiety is framed, or at times reported in mainstream media, amplifies these tensions [22,24]. For instance, highlighting pathology versus rational concern and risk factor versus motivator shapes whether young people are treated, empowered, or mobilised [21,25].

Articles and podcasts across international outlets describe eco-anxiety as a “mental toll of the climate crisis”, a “chronic fear of environmental doom”, and a “new form of psychological distress” especially affecting youth and parents, while simultaneously highlighting its potential to motivate sustainable action [26–28]. Australian news platforms report experts warning that climate change anxiety is affecting “young Aussies”, not only undermining wellbeing but also shaping life decisions about education, work, and family planning [14,15].

Despite this attention, existing empirical work on eco-anxiety often imports frameworks from environmental psychology, clinical psychology, risk perception, and existential philosophy without systematically articulating their assumptions or tensions [9,11,12,25]. Recent scoping reviews and conceptual papers have begun to propose unified definitions and high-level models of eco-anxiety, but they rarely focus on young adulthood or the specific sociocultural context of Australia and other OECD countries [11,19–21]. Therefore, a systematic conceptual review is needed to map, compare, and critique these frameworks in relation to young adults in Australia and OECD settings.

1.3. Aims and Scope

This paper provides a systematic conceptual review and a critique of the theoretical and conceptual frameworks used to understand climate change-driven eco-anxiety in young adults in Australia and OECD countries. Specifically, we aim to:

1. Identify and map the range of conceptual and theoretical models used in empirical and theoretical studies addressing eco-anxiety among young adults. We limit the focus of this study to conceptual models and frameworks and do not cover in depth their ontological or epistemological underpinnings.

2. Develop a conceptual typology of these frameworks, grouping them into coherent families and characterising their core assumptions about aetiology, functions, and implications of eco-anxiety.
3. Critically examine how these frameworks have been applied to young adults in Australia and other OECD contexts, highlighting strengths and limitations.
4. Identify major conceptual gaps and propose a way forward for theory development, measurement, and intervention.

Our focus is explicitly conceptual and theoretical; we do not synthesise effect sizes or prevalence estimates in research but rather examine how eco-anxiety is theorised, operationalised, and positioned across disciplines.

2. Review Methodology

2.1. Philosophical Positioning of the Critique: Ontological and Epistemological Underpinnings of the Review

This review was informed by critical realist ontology [29] and an interpretivist epistemology. Critical realism avoids two unsatisfactory extremes: (1) A purely positivist account could reduce eco-anxiety to measurable symptoms or scale scores and underplay its moral, relational, cultural, and political meanings. (2) A strong relativist constructivist account might imply that climate-related distress is only a product of discourse or individual interpretation, insufficiently recognising the independent reality of climate and ecological disruption.

Critical realism recognises that climate change, ecological degradation, extreme weather events, and associated institutional responses constitute material realities that exist independently of individual perceptions. However, it also recognises that eco-anxiety is experienced, interpreted, labelled, and acted upon through socially situated meanings shaped by developmental stage, cultural identity, relationships with place and nature, climate exposure, media environments, socioeconomic conditions, and political trust. Accordingly, the review did not treat eco-anxiety as either a purely objective clinical symptom or a purely discursive construction. Rather, it examined how diverse theoretical traditions construct and explain climate-related distress (eco-anxiety) in relation to real ecological threats and the social structures through which those threats are encountered [29–31].

Epistemologically, the review adopted an interpretivist orientation informed by moderate social constructionism. This orientation supported examination of how scholars, clinicians, young people, policy actors, and media institutions differently define eco-anxiety as psychopathology, risk appraisal, moral emotion, ecological grief, existential distress, relational rupture, or sociopolitical affect. Such differences were treated not as simple terminological inconsistencies, but as reflections of divergent disciplinary assumptions, normative commitments, and contextual understandings of climate-related distress.

The analysis used an abductive approach, combining deductive and inductive reasoning. An initial coding framework was informed by the established literature across clinical psychology, environmental psychology, appraisal theory, existential psychology, socio-ecological theory, coping research, and climate justice scholarship. These initial categories were then iteratively revised through engagement with the included literature. This process enabled the development of a seven-family framework and four-quadrant conceptual typology while retaining sensitivity to models that crossed categories or exposed gaps in existing theorisation. When several models spanned multiple dimensions, for analytical clarity, they were classified according to their primary positioning within the typology and seven framework families. This approach is consistent with conceptual systematic review methods that integrate systematic searching with deductive and inductive content analysis [32].

It should also be noted that the frameworks reviewed in this study draw on different disciplines and operate at different levels of analysis. For example, clinical and psychological models primarily conceptualise eco-anxiety as an individual experience associated with affective, cognitive, and behavioural responses, whereas socio-ecological and critical approaches emphasise the role of social, cultural, political, and structural conditions. These differences influence what is considered a cause, consequence, or appropriate response to eco-anxiety. Consequently, comparisons across frameworks should be interpreted with an appreciation of their distinct underlying assumptions, paradigmatic positions, and explanatory purposes.

2.2. Search Strategy and Sources

We first resolved the varying definitions of young adults. Age boundaries for “young adulthood” differ across Australian and international reporting systems. The Australian Institute of Health and Welfare commonly defines young people as aged 12–24 years, with 15–24 years frequently used where health data are unavailable for the wider age band [33]. In contrast, the OECD defines young people as those aged 15–29 years for cross-national comparison, while using 25–34 years as a “young adult” category in selected education and wellbeing indicators [19,34]. For the present review, young adults were defined as people aged 18–29 years. This range begins at legal adulthood and reflects emerging-adulthood theory, which characterises the late teens and twenties as a period of identity exploration, growing autonomy, and transitions in education, employment, housing, intimate relationships, and family formation [35]. In Australia, evidence that financial and residential dependence commonly extends through the early twenties supports use of an upper age boundary beyond 24 years [36]. Studies using adjacent age bands, including 18–34 and 25–34 years, were retained where their findings were directly relevant to the review’s core population and could be meaningfully interpreted in relation to young adulthood.

We followed best-practice guidance for scoping and conceptual reviews, including PRISMA-ScR principles, while adapting our strategy to focus on theoretical content rather than quantitative synthesis [11,37]. We searched PsycINFO, MEDLINE, Scopus, Web of Science Core Collection, ERIC, and ProQuest Dissertations & Theses for publications up to 31 March 2026 [11,21]. Search strings combined terms for eco-anxiety and related constructs (e.g., “eco-anxiety”, “climate anxiety”, “climate change anxiety”, “environmental worry”, “climate distress”, “eco-distress”, “eco-grief”) with terms capturing theory and young people (e.g., “model”, “framework”, “theoretical”, “conceptual”, “young adults”, “university students”, “emerging adults”) [4,6,11,12,38].

To capture policy-relevant and emergent conceptualisations, we conducted targeted searches of grey literature and policy databases (e.g., OECD, WHO, EU climate-health reports) and professional association materials (e.g., American Psychological Association reports on climate change and mental health) [19,20,39–41]. We also searched for English-language media pieces in major newspapers and outlets (e.g., The Conversation, national and international news sites) using terms such as “eco-anxiety”, “climate anxiety”, and “young people” [4,12].

Approximately 2130 records were generated through database searching, supplementary citation searching, grey literature searches, and media searches. Following removal of approximately 650 duplicates, around 1480 records proceeded to title and abstract screening. Approximately 980 records were excluded at this stage, leaving around 500 sources for full-text assessment. Following full-text assessment, about 300 sources were excluded, primarily because they were descriptive prevalence studies without substantive theoretical framing, involved populations outside the review scope, were based exclusively on non-OECD samples without contextual relevance, or consisted of opinion material without

substantive conceptual content. Approximately 200 sources were consequently retained across the scholarly, grey literature and contextual media corpora, of which 120 were used in the analysis for their substantive application, testing, extension or development of an identifiable conceptual framework or theoretical model. The inclusion of seminal scoping reviews facilitated the capture of numerous models, even as these remained largely clustered within a few key sources (Figure 1).

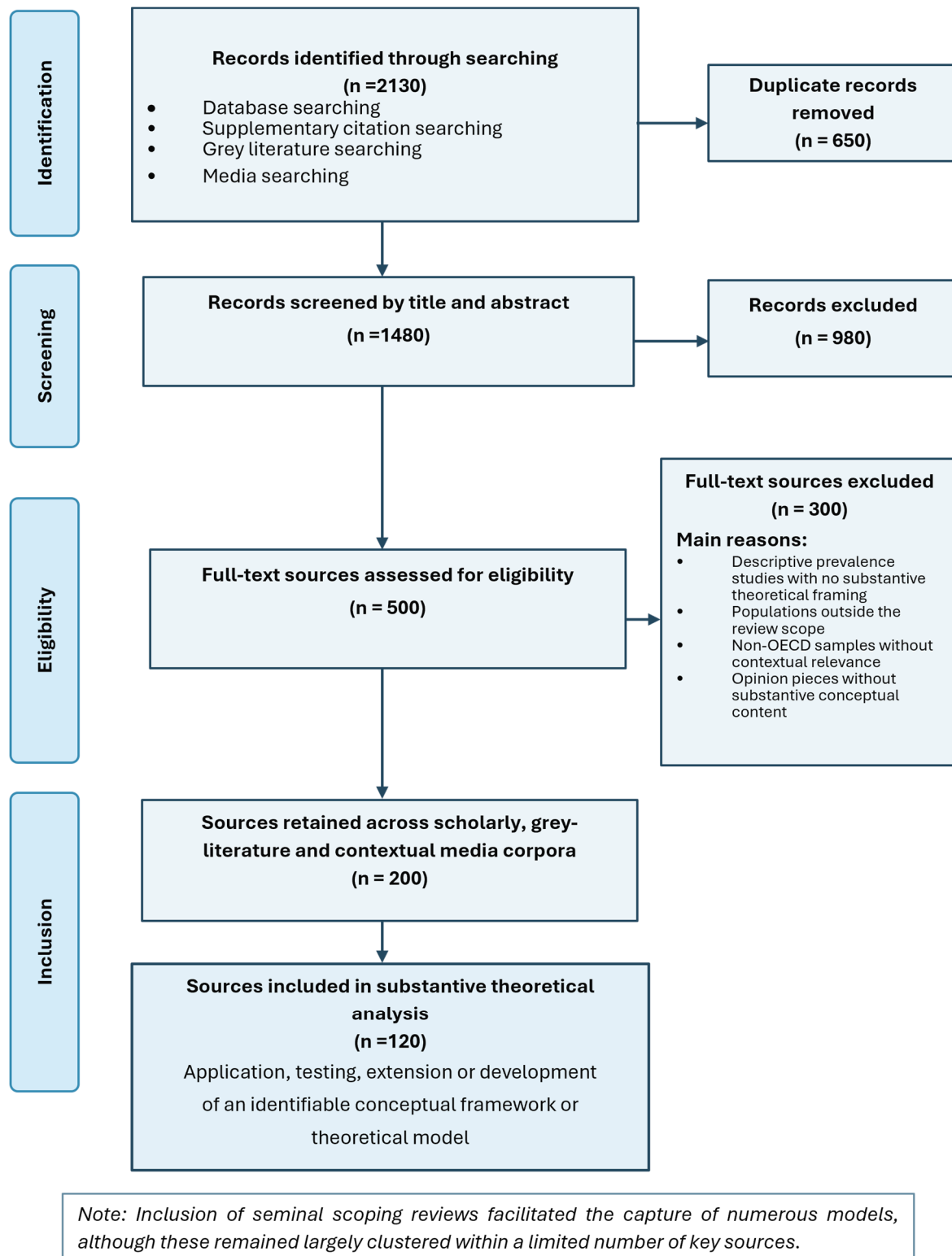


Figure 1. PRISMA-ScR style flow diagram of the literature search and study selection process.

2.3. Inclusion and Exclusion Criteria

Studies were eligible if they: (1) explicitly used the terms “eco-anxiety”, “climate anxiety”, or closely related constructs; (2) included young people within approximately 18–35 years, or reported age-stratified analyses including this group; (3) were conducted in Australia or an OECD country, or included cross-national samples with OECD participation; and (4) presented, applied, or implicitly relied on a conceptual or theoretical framework related to eco-anxiety [4,11,21]. We included empirical (quantitative, qualitative, mixed-methods), conceptual, and review articles, as well as doctoral theses that developed or tested models of eco-anxiety [8,11,38].

We excluded purely descriptive prevalence reports with no identifiable theoretical framing, non-OECD samples without relevance to our context, and opinion pieces without substantive conceptual content [11,21] (see Figure 1).

2.4. Screening and Data Extraction

Titles and abstracts were screened for relevance, followed by full text review [37]. For each included article, we extracted: (1) study characteristics (country, sample, age range, design), (2) main construct labels (e.g., eco-anxiety, climate worry), (3) explicit theoretical frameworks (e.g., appraisal theory, existential framework), (4) measurement models (e.g., specific scales and their dimensional structure), and (5) implied conceptual assumptions (e.g., eco-anxiety as risk factor vs. motivator) [9–11,38].

2.5. Conceptual Coding and Framework Mapping

We used an iterative, theory-driven and inductive coding approach to map frameworks, informed by previous scoping reviews and conceptual analyses [11,13,21]. Initial codes captured broad theoretical traditions (e.g., clinical, environmental psychology, existential, socio-ecological), which were refined into a typology of seven families through constant comparison and discussion [21,25]. Within each family, we catalogued named models and frameworks (e.g., specific scales, theories of change, structural models) and noted how they were applied to young adults in Australia or OECD contexts [4,7,19].

To enhance rigour and minimise potential investigator bias, two primary authors conducted the initial coding and classification of all clearly identifiable articles. In the first round, each article was independently coded and categorised by both authors. Any disagreements that arose during this phase were subsequently resolved through collaborative discussion involving all three authors. This multi-stage consensus process was intentionally designed to strengthen the reliability and validity of the classification outcomes.

3. Findings: Conceptual Typology of Eco-Anxiety Frameworks

3.1. Overview of Framework Families

Across the corpus, we identified more than 100 distinct conceptual or theoretical models and frameworks used to make sense of eco-anxiety or climate anxiety in young adults [11,13,21,25,38]. However, we present 62 highly relevant models and frameworks that fall within the scope of this study.

These are clustered into seven major families:

1. Clinical and psychopathology-oriented models;
2. Environmental attitude and concern models;
3. Risk perception and appraisal models;
4. Existential and phenomenological frameworks;
5. Socio-ecological and political-economy models;
6. Coping and resilience frameworks;
7. Integrative and eco-anxiety-specific models.

In Table 1 below, we summarise each family, highlighting key frameworks and their applications to young adults in Australia and OECD countries; the accompanying table gives a simplified overview (illustrative rather than exhaustive) [4,7,19].

Table 1. Illustrative typology of eco-anxiety frameworks.

Family	Example Frameworks/Models (Illustrative)	How Eco-Anxiety Is Conceptualised (Illustrative)
1. Clinical/psychopathology	Symptom-based climate anxiety models; comorbidity models with GAD, depression; self-compassion–anxiety structural models; DSM-inspired proposals	As anxiety-like distress; potential clinical condition or transdiagnostic symptom cluster; focus on individual symptoms and impairment
2. Environmental attitudes & concern	New Environmental Paradigm; environmental concern scales; pro-environmental attitude–behaviour models	As intense environmental concern or worry; linked to pro-environmental values and behaviour; not necessarily pathological
3. Risk perception & appraisal	Appraisal theories of emotion; Protection Motivation Theory; Extended Parallel Process Model; climate risk perception models	As emotional response to cognitive appraisals of climate threat, efficacy, and control; can motivate action or avoidance
4. Existential & phenomenological	Existential framework (death, meaning, isolation, freedom/responsibility); ecological grief models; meaning-making frameworks	As existential distress confronting finitude, loss, purpose, and responsibility; often morally and politically charged
5. Socio-ecological & political economy	Socio-ecological models of health; climate justice frameworks; structural violence and inequality models; policy-oriented frameworks	As sociopolitical affect shaped by structural injustices, policy failures, and collective risk; emphasis on youth and intergenerational inequity
6. Coping & resilience	Coping typologies (problem-focused, emotion-focused, meaning-focused); eco-coping frameworks; agency-oriented models	As stressor that can be buffered or transformed through coping strategies, self-compassion, and collective agency
7. Integrative & eco-anxiety-specific	Hogg Eco-Anxiety Scale (HEAS); climate change anxiety scales; unified conceptual eco-anxiety frameworks; grounded theory of eco-anxiety	As multidimensional sociopsychological state with affective, cognitive, behavioural, and relational dimensions; bridging clinical, ecological, and political perspectives

Source: Literature review.

3.1.1. Clinical and Psychopathology-Oriented Models

A substantial subset of studies situates eco-anxiety within clinical or psychopathology frameworks, often borrowing constructs and instruments from anxiety research [9,11,38]. Some treat eco-anxiety as a potential subtype of anxiety disorder or as part of broader internalising symptomatology, emphasising distress [4,11,38]. See Table 2.

For example, some young adult studies use general anxiety measures (e.g., GAD-7) alongside climate-specific items to model bidirectional relationships between climate anxiety and general anxiety, finding strong positive associations [10,42,43]. Some studies applying structural equation models in university student samples suggest that self-compassion is negatively associated with general anxiety, which in turn mediates climate change anxiety, implying that eco-anxiety can be embedded within transdiagnostic vulnerability models [42,44].

Other clinical approaches propose symptom-based models, focusing on sleep disturbance, concentration difficulties, intrusive thoughts, and functional impairment linked to climate concerns [9–11]. Some opinion and media pieces extrapolate from these findings to suggest eco-anxiety might constitute an emerging disorder, although this is contested and not widely accepted in diagnostic manuals [4,23,45].

Table 2. An indicative sample of clinical and Psychopathological models.

#	Framework/Model	Family	Core Idea/Basis	Eco-Anxiety Positioned as	Typical Context	Key Reference(s)
1	Symptom-based eco-anxiety (generalised anxiety analogue)	Clinical	Draws on generalised anxiety disorder symptom criteria and worry literature	Subtype of anxiety marked by persistent, difficult-to-control worry about climate change	Young adults and adults; OECD	[25]
2	Eco-anxiety as a transdiagnostic vulnerability factor	Clinical	Transdiagnostic models of internalising disorders	Vulnerability factor co-occurring with depression, GAD, PTSD	Adolescents, young adults exposed to climate disasters	[46]
3	Medical model of eco-anxiety (clinical proposal)	Clinical	Psychiatry-oriented proposal for medical classification	Emerging non-debilitating condition with eco-anger, eco-grief, eco-worry dimensions	Adults and young people; Western contexts	[23]
4	Eco-anxiety–depression comorbidity model	Clinical	Comorbidity models in mood/anxiety disorders	Co-occurring with depression; eco-anxiety as maintaining factor	Young adults in disaster-exposed regions	[46]
5	Eco-anxiety–PTSD linkage	Clinical	PTSD models applied to climate events	Eco-anxiety intensified by disaster exposure; interacts with trauma symptoms	Youth after climate-related disasters	[46]
6	Eco-anxiety within dimensional psychopathology	Clinical	Dimensional mental health frameworks	Positioning eco-anxiety on internalising spectrum (severity continuum)	Adolescents and young adults	[47]
7	Self-compassion–general anxiety–climate anxiety SEM	Clinical	Structural equation models of anxiety and self-compassion	Climate anxiety partly mediated by general anxiety, moderated by self-compassion	Young adults, likely OECD; thesis work	[48]
8	Eco-anxiety as functional vs. dysfunctional in clinical care	Clinical	Clinical decision frameworks	Distinguishes proportionate vs. impairing eco-anxiety for treatment planning	Youth and adults in practice settings	[49]

Source: Literature review and analysis.

3.1.2. Environmental Attitudes and Concern Models

Many early and survey-based studies conceptualise climate worry as an extension of environmental concern, grounded in environmental attitude and behaviour models [9,50,51]. These frameworks draw on established constructs such as the New Environmental Paradigm and environmental concern scales, treating eco-anxiety as intense concern about environmental degradation, embedded in value systems and identity [9,42,50,52,53].

In young adult samples across OECD countries, eco-anxiety is often examined in relation to pro-environmental behaviour, activism, and sustainable lifestyle choices, under the assumption that greater worry can motivate action up to a point [9,54–56]. Here, eco-anxiety is generally positioned as a morally appropriate, even desirable, emotional response signalling environmental awareness and commitment, rather than as pathology [9,10,54,56–58]. See Table 3 for more details.

3.1.3. Risk Perception and Appraisal Models

As shown in Table 4, Risk perception and appraisal models view emotions as arising from cognitive evaluations of threat, probability, and efficacy [25,59]. In the climate domain, researchers have applied appraisal theories of emotion and related models such as Protection Motivation Theory and the Extended Parallel Process Model to understand how perceived severity and controllability of climate change shape anxiety and subsequent behaviour [25,60].

One conceptual paper explicitly links climate anxiety to appraisal theories, arguing that climate-related worry, fear, and concern can be understood as appraisals of future harm under uncertainty, influenced by information exposure and trust in institutions [25,51,58]. Empirical studies in OECD youth samples model eco-anxiety as mediating between perceived climate risk and behavioural responses (e.g., activism, avoidance), suggesting that threat appraisals and efficacy beliefs jointly determine whether eco-anxiety leads to constructive engagement or paralysis [54–56].

3.1.4. Existential and Phenomenological Frameworks

Existential frameworks conceptualise eco-anxiety as rooted in fundamental concerns about death, meaning, isolation, and freedom/responsibility, rather than as a discrete clinical symptom [38]. Qualitative studies using semi-structured interviews with adults and young people highlight themes of anticipated loss of ecosystems, intergenerational injustice, guilt about personal impact, and chronic uncertainty about what to do, analysed through an existential lens [38,46,61]. See Table 5 for more details.

One study explicitly uses an existential framework to conceptualise eco-anxiety through four core concerns (death, meaning, isolation, and responsibility) arguing that distress about climate change can be appropriately understood as existential anxiety that challenges basic assumptions about life and the future [38]. Related work on ecological grief and climate-related mourning among young people frames eco-emotions as grief responses to anticipated or actual ecological loss and cultural disruption, resonating strongly in Indigenous and rural communities, including in Australia [61–63].

Table 3. An indicative sample of environmental attitudes and concern models.

#	Framework/Model	Family	Core Idea/Basis	Eco-Anxiety Positioned as	Typical Context	Key Reference(s)
9	Environmental concern as proto-eco-anxiety	Env. attitudes	Environmental concern scales and NEP	Intense, value-based concern about environment; not inherently pathological	Students, OECD	[64]
10	Eco-anxiety as high environmental concern with action link	Env. attitudes	Attitude-behaviour models in environmental psychology	Concern that may motivate pro-environmental behaviour	Young adults and adults	[64]
11	Nature connectedness–eco-anxiety link	Env. attitudes	Nature connectedness theories	Strong connection to nature may amplify eco-anxiety yet motivate care	Youth with high nature orientation	[65]
12	Environmental identity and moral self-concept model	Env. attitudes	Environmental identity frameworks	Eco-anxiety as threat to environmental self-identity	Young environmentalists in OECD	[66]
13	Environmental values (biospheric vs. egoistic)	Env. attitudes	Value-belief–norm approaches	Biospheric values heighten eco-anxiety but also commitment to action	Youth in high-income countries	[64]
14	Eco-anxiety as “deep concern” typology	Env. attitudes	Intensity typology of eco-anxiety	Mild, medium, significant, severe levels of concern and distress	Mixed ages; conceptual typology	[21]
15	Pro-environmental norm conflict model	Env. attitudes	Cognitive dissonance and norm conflict	Eco-anxiety as distress from norm–behaviour gap	Young adults in consumerist contexts	[64]

Table 4. An indicative sample of risk perception and appraisal models.

#	Framework/Model	Family	Core Idea/Basis	Eco-Anxiety Positioned as	Typical Context	Key Reference(s)
16	Appraisal theory of climate emotions	Risk/appraisal	Cognitive appraisal theories of emotion	Result of appraisals of climate threat and controllability	General population, including youth	[25]
17	Climate risk perception → climate anxiety → action model	Risk/appraisal	Risk perception frameworks	Eco-anxiety mediates between perceived risk and behaviour	Young adults, OECD	[64]
18	Protection Motivation Theory adaptation	Risk/appraisal	PMT (threat and coping appraisals)	Eco-anxiety arises from high threat, low coping appraisal	Adults and youth in climate communication studies	[67]
19	Extended Parallel Process Model in climate communication	Risk/appraisal	EPPM fear-appeal models	Eco-anxiety as outcome of high threat, variable efficacy (danger vs. fear control)	Media exposure contexts	[67]

Table 4. *Cont.*

#	Framework/Model	Family	Core Idea/Basis	Eco-Anxiety Positioned as	Typical Context	Key Reference(s)
20	Anticipatory anxiety about future climate harms	Risk/appraisal	Anticipatory emotion models	Future-oriented worry about uncertain harm events	Students in OECD	[13]
21	Uncertainty-focused eco-anxiety model	Risk/appraisal	Uncertainty and intolerance of uncertainty theories	Eco-anxiety linked to chronic uncertainty about climate futures	Young people globally	[21]
22	Attribution and trust in authorities	Risk/appraisal	Risk governance and trust literature	Eco-anxiety influenced by perceived institutional (un)trustworthiness	Youth in cross-national samples	[4]

Table 5. An indicative sample of existential and phenomenological frameworks.

#	Framework/Model	Family	Core Idea/Basis	Eco-Anxiety Positioned as	Typical Context	Key Reference(s)
23	Explicit existential framework (death, meaning, isolation, freedom/responsibility)	Existential	Classical existential psychotherapy theory	Eco-anxiety as existential anxiety refracted through climate crisis	Adults and youth	[68]
24	Ecological grief model	Existential	Grief and bereavement theories	Grief reactions to ecological losses, species extinction, place loss	Young people in rural and Indigenous communities	[68]
25	Meaning-making in climate distress	Existential	Meaning-making and post-traumatic growth literature	Eco-anxiety as catalyst for meaning search and re-orientation	Youth engaged in activism	[68]
26	Existential anxiety–deep resilience framework	Existential	Deep resilience and existential anxiety theory	Distinguishes adaptive vs. maladaptive existential anxiety in climate context	Adolescents exposed to disasters	[46]
27	Future of humanity and species-level threat	Existential	Terror management and global catastrophic risk theories	Threat to continuation of humanity and civilisation as driver of eco-anxiety	Youth globally	[13]
28	Responsibility/freedom burden in youth	Existential	Responsibility and freedom in existential development	Chronic uncertainty about “what to do” and guilt for inaction	Young adults aware of climate injustice	[8]

3.1.5. Socio-Ecological and Political-Economy Models

Socio-ecological frameworks situate eco-anxiety within multi-level models that link individual experiences to family, community, institutional, and structural factors [20,69]. From this perspective, eco-anxiety among young adults reflects not only personal vulnerability but also unequal exposure to climate risks, policy failures, economic precarity, and intergenerational injustice [4,19,70]. See Table 6 for more details.

Policy-oriented papers and reports emphasise that young people's climate-related distress is shaped by schooling, media narratives, government communication, and perceived betrayal by political leaders [4,19,20]. Large cross-national surveys show that young people's belief that governments are failing to respond adequately to climate change is strongly associated with higher climate anxiety and feelings of powerlessness and betrayal [4]. Conceptual models emerging from this work link eco-anxiety to climate justice frameworks and political-economy analyses of extractivism and neoliberalism, especially in OECD contexts with high per capita emissions and contested climate policies [20,70,71].

3.1.6. Coping and Resilience Frameworks

Coping-oriented models focus on how young people manage climate-related distress, drawing on stress and coping theory and resilience frameworks [57,59,72]. These distinguish between problem-focused, emotion-focused, and meaning-focused coping strategies, and increasingly highlight collective and action-oriented coping as crucial for eco-anxiety [57,73,74]. See Table 7 for more details.

Reviews of climate-related worry in children and young people identify meaning-focused coping (finding positive aspects and a sense of hope while acknowledging the problem) as associated with better wellbeing, life satisfaction, and pro-environmental behaviour [18,57,75]. Conceptual models propose that eco-anxiety can be adaptive when accompanied by coping strategies that foster agency, connection, and hope, but may become debilitating when combined with low efficacy and social isolation [70,73,74]. Some empirical work in young adults suggests that self-compassion may buffer general and climate-specific anxiety, providing a possible mechanism for 'psychological cushioning'.

3.1.7. Integrative and Eco-Anxiety-Specific Frameworks

Finally, a rapidly growing body of work seeks to develop eco-anxiety-specific conceptual frameworks and measurement models that integrate insights from the above traditions [11,13,21]. See Table 8.

Table 6. An indicative sample of socio-ecological and political-economy models.

#	Framework/Model	Family	Core Idea/Basis	Eco-Anxiety Positioned as	Typical Context	Key Reference(s)
29	Socio-ecological model of climate-related wellbeing	Socio-ecological	Bronfenbrenner-inspired multi-level models	Eco-anxiety shaped by individual, family, school, community, societal levels	Children and youth; policy focus	[19]
30	Climate justice–eco-anxiety model	Socio-ecological	Climate justice and intergenerational equity frameworks	Eco-anxiety as response to injustice and inequitable burdens	Young people globally, incl. Australia	[4]
31	Intergenerational betrayal and trust model	Socio-ecological	Trust and betrayal in intergenerational contracts	Eco-anxiety linked to feelings of betrayal by governments and adults	Youth in 10-country sample, incl. Australia	[4]
32	Policy failure and structural eco-anxiety	Socio-ecological	Policy analysis and structural violence	Distress arising from perceived policy inaction and extractive economies	Australian and OECD youth	[20]
33	Education system as context for eco-anxiety	Socio-ecological	Critical education and curriculum theories	Schooling both triggers and contains eco-anxiety via curricula	Students in OECD systems	[19,76]
34	Urban vs. rural exposure models	Socio-ecological	Environmental exposure and place-based health models	Different forms of eco-anxiety based on exposure to heat, fires, floods	Young Australians in different regions	[76]
35	Indigenous relational ontologies (Country)	Socio-ecological	Indigenous health and Country-based frameworks	Eco-anxiety intertwined with cultural loss and relational rupture	Indigenous youth in Australia	[68]
36	Political-economy model (neoliberalism, extractivism)	Socio-ecological	Political economy of climate crisis	Eco-anxiety as sociopolitical affect rooted in neoliberal extractive systems	Climate-aware youth in OECD	[20,76]
37	Socio-material futures model	Socio-ecological	Futures studies and sociology of expectations	Eco-anxiety as anticipation of constrained future opportunities	Young adults deciding about family, work	[65]

Table 7. An indicative sample of coping and resilience frameworks.

#	Framework/Model	Family	Core Idea/Basis	Eco-Anxiety Positioned as	Typical Context	Key Reference(s)
38	Problem- vs. emotion-focused eco-coping	Coping	Lazarus & Folkman coping typology	Eco-anxiety as stressor managed via problem or emotion focus	Children and youth	[18]
39	Meaning-focused coping with climate worry	Coping	Meaning-focused coping theory	Emphasis on positive re-appraisal and meaning to manage eco-anxiety	Children and young people	[18]
40	Coping strategies for climate change anxiety	Coping	Health psychology coping models	Distinguishes constructive vs. unconstructive coping; promotes engagement	Adults and young people	[74]
41	Climate Anxiety Compass	Coping	New integrative coping framework	Maps coping strategies along 3 axes: problem vs. emotion, mitigation vs. adaptation, individual vs. collective	General population; scalable for youth	[73]
42	Self-compassion as buffer model	Coping	Self-compassion and resilience theory	Eco-anxiety indirectly reduced via improved coping and reduced general anxiety	Young adults	[48]
43	Deep resilience framework	Coping	Deep resilience concept	Eco-anxiety can be channelled into deep resilience at community/societal level	Adolescents in disaster-prone areas	[46]
44	Agency-oriented eco-anxiety interventions	Coping	Behavioural activation and empowerment	Transforming eco-anxiety into action via “face it, feel it, act on it” steps	Public talks, youth interventions	[77]
45	Collective coping and peer support	Coping	Social support and collective coping theories	Group-based processing of eco-anxiety via activism, peer groups	Activist and youth groups	[78]

The Hogg Eco-Anxiety Scale (HEAS), developed and validated in Australia and New Zealand, proposes a four-dimensional model capturing affective symptoms, rumination, behavioural symptoms, and anxiety about one's negative impact on the planet, and demonstrates that these factors are distinct from general stress, anxiety, and depression [7]. This scale functions both as a measurement tool and an implicit conceptual framework for eco-anxiety as a multidimensional construct [7,79].

A comprehensive scoping review recently proposed a unified conceptual framework of eco-anxiety, defining it as a sociopsychological state rooted in feelings of uncertainty and uncontrollability and encompassing internal emotional responses and social factors such as inequalities and perceived deficiencies in governmental responses [11,21]. This framework positions eco-anxiety at the intersection of mental health, environmental engagement, and sociopolitical context [13,21].

Emerging grounded theory work conceptualises eco-anxiety as a signal of disrupted relational ecology, emphasising that eco-anxiety reflects damaged relationships with place, community, and nonhuman nature rather than solely individual pathology [4,7,57,75]. Cross-national studies on eco-anxiety in young people propose multi-level frameworks integrating individual factors (e.g., personality, nature connectedness), micro-contexts (family, peers), and macro-contexts (media, policy, culture) [4,19,70].

3.1.8. Cross-Cutting, Youth-Specific, and Australian/OECD Related Conceptual Narratives

As shown in Table 9, cross-cutting, youth-specific, and Australian/OECD-anchored conceptual pieces bring together insights that span multiple theoretical families while focusing explicitly on young people in high-income contexts like Australia and other OECD countries. These contributions are “cross-cutting” because they do not sit neatly in a single quadrant or framework family; instead, they integrate emotional, cognitive, relational, and sociopolitical dimensions of eco-anxiety as they appear in youth lives.

First, large cross-national surveys of 16–25-year-olds (such as the Lancet Planetary Health study by Hickman and colleagues) show that climate-related emotions among young people are tightly linked to beliefs about government inaction, intergenerational injustice, and compromised future life prospects, illustrating the intersection of clinical distress, risk appraisals, justice concerns, and political trust for this age group. These studies anchor eco-anxiety in the specific developmental window of adolescence and young adulthood and highlight how institutional responses shape emotional experience.

Second, policy and education-focused reports from OECD and related bodies frame eco-anxiety as both a mental health challenge and an educational/participatory issue. They stress that schooling, curricula, and youth participation in climate policy processes are crucial contexts for understanding eco-anxiety, thereby connecting socio-ecological and political-economy models with coping and resilience perspectives. In Australian settings, similar documents and practitioner resources emphasise climate-related worry and eco-anxiety among young people, linking psychological responses to national climate politics [80,81], exposure to extreme events, and cultural narratives about the future.

Third, youth-centred conceptual work and commentaries, including media analyses, think-tank pieces, and qualitative studies, depict eco-anxiety as part of broader climate futures and identity work. Here, eco-anxiety is described as a catalyst for activism, international engagement, and re-thinking career, family, and lifestyle decisions, while also acknowledging risks of paralysis and despair. These frameworks highlight the dual nature of eco-anxiety as both a burden and a source of motivation, and they foreground youth agency [82] and voice rather than treating young people only as patients or survey respondents.

Table 8. An indicative sample of integrative and eco-anxiety-specific frameworks.

#	Framework/Model	Family	Core Idea/Basis	Eco-Anxiety Positioned as	Typical Context	Key Reference(s)
46	Hogg Eco-Anxiety Scale (HEAS)—original 4-factor model	Integrative/scale	Mixed-methods development and factor analysis	Multidimensional construct: affective symptoms, rumination, behavioural symptoms, personal impact anxiety	Adults and young adults; Australia & NZ	[7]
47	HEAS—German adaptation	Integrative/scale	Cross-cultural psychometric validation	Confirms 4-factor structure in German-speaking adults	Adults; OECD	[79]
48	HEAS—lifespan recommendations	Integrative/scale	Systematic review of eco-anxiety scales	HEAS recommended scale for young adults and adults	Young adults, adults	[49]
49	Unified conceptual framework of eco-anxiety	Integrative	Scoping review and conceptual synthesis	Eco-anxiety as sociopsychological state linked to uncertainty, uncontrollability, social factors	General population including youth	[21]
50	Eco-anxiety continuum calibration model	Integrative/scale	Psychometric calibration across instruments	Positions eco-anxiety on continuum from mild to severe using CCAS and HEAS	Adults and youth	[47,83]
51	Climate Change Anxiety Scale (CCAS)	Integrative/scale	Climate anxiety subscale from Inventory of Climate Emotions	Measures cognitive–emotional climate anxiety; robust psychometrics	Adults and young adults	[49,84,85]
52	Inventory of Climate Emotions (ICE)	Integrative/scale	Multidimensional climate emotion model	Includes climate anxiety as one facet among several emotions	Adults and youth	[49,84,85]
53	Eco-anxiety–eco-guilt–eco-grief scales triplet	Integrative/scale	Development of three interrelated scales	Distinguishes eco-anxiety from related eco-emotions	Adults; conceptual medical model	[23]
54	Climate emotions framework	Integrative	Emotion theory applied to climate	Eco-anxiety embedded in network of climate emotions (anger, guilt, hope)	General population, youth	[25,84]
55	Grounded theory of eco-anxiety as relational disruption	Integrative	Grounded theory qualitative study	Eco-anxiety as disruption of relationships with nature, others, future	Adults; applicable to youth	[86]

Table 9. An indicative sample of cross-cutting models.

#	Framework/Model	Family	Core Idea/Basis	Eco-Anxiety Positioned as	Typical Context	Key Reference(s)
56	Global youth eco-anxiety belief–emotion model	Cross-cutting	Large cross-national survey integrating beliefs and emotions	Eco-anxiety linked to beliefs about governmental failure, future doom, and betrayal	16–25-year-olds in 10 countries incl. Australia	[4]
57	Youth climate futures framework	Cross-cutting	Framework for young people’s experiences of climate change	Eco-anxiety part of broader climate emotions and future imaginaries	Young people; conceptual review	[65,84,85]
58	OECD education–climate–wellbeing framework	Cross-cutting	OECD policy framework	Eco-anxiety as educational and wellbeing issue requiring system response	Students across OECD	[19]
59	Eco-anxiety and wellbeing policy challenges	Cross-cutting	Policy input paper	Eco-anxiety as policy challenge involving wellbeing, justice, and participation	Policy makers in Europe/OECD	[20,76]
60	Australian HEAS-based conceptualisation	Cross-cutting	HEAS work with Australian samples	Eco-anxiety as distinct multidimensional state among Australians	Young adults and adults in Australia	[7]
61	Australian youth media discourse model	Cross-cutting	Media framing analysis (implied)	Eco-anxiety framed as threat to “young Aussies’” mental health	Australian youth	[14]
62	Clinical guidance on eco-anxiety across lifespan	Cross-cutting	Systematic review with clinical implications	Positions eco-anxiety as normative yet sometimes clinically significant	Children to adults	[49]

Together, these cross-cutting, youth-specific, and Australian/OECD-anchored conceptual frameworks perform three key functions: they (1) emphasise the developmental specificity of eco-anxiety in young adulthood; (2) situate eco-anxiety within concrete institutional and policy environments characteristic of OECD societies, including Australia; and (3) show how youth experiences of eco-anxiety traverse emotional–symptomatic, cognitive–appraisal, relational–existential, and sociopolitical–structural dimensions simultaneously. This makes them especially valuable for grounding the typology in real-world contexts and for arguing that any future conceptual framework must be multi-level, youth-informed, and sensitive to national and regional climate politics.

4. Discussion

4.1. Fragmentation and Partial Integration of Frameworks

Our synthesis shows that more than 100 models and frameworks have been applied to eco-anxiety among young adults, yet they remain fragmented across disciplinary silos limiting theoretical integration, cumulative knowledge development, and cross-study comparability [11,13,21]. In essence, clinical models foreground individual symptoms and comorbidity; environmental attitude and risk models emphasise concern and behaviour; existential frameworks highlight meaning and mortality; socio-ecological models stress structural drivers; coping frameworks focus on regulation and resilience; and integrative models attempt to bridge these dimensions [10,25,38,73].

This fragmentation leads to conceptual ambiguities. Some models implicitly treat eco-anxiety as synonymous with climate worry or concern, while others reserve the term for intense symptom clusters with functional impairment [10,11,13]. Many studies do not clearly state whether they view eco-anxiety as adaptive, maladaptive, or both, leading to inconsistent interpretations of similar empirical findings [54–57]. Consequently, scholars may draw divergent conclusions from comparable results, undermining theoretical development and obscuring the true nature and implications of eco-anxiety.

4.2. Young Adulthood, Development, and OECD Contexts

Young adulthood is a period of identity exploration, future planning, and increased exposure to global information, making it a critical developmental window for eco-anxiety, yet most conceptual frameworks are not developmentally specific [35,70]. Large surveys show that climate anxiety and pessimism about the future intensify during adolescence and young adulthood, coinciding with increased awareness of climate risks and sociopolitical dynamics [4,19]. However, few models explicitly incorporate developmental psychology or emerging adulthood theory [35,70].

In OECD countries, including Australia, young adults often experience eco-anxiety against a backdrop of relatively high material security but heightened awareness of their nations' contribution to emissions and perceived policy inaction, creating distinctive moral and political tensions [4,19,20]. Socio-ecological and justice-oriented frameworks capture these dynamics better than purely clinical or individual-level models, but are under-utilised in empirical studies, especially in Australia where Indigenous perspectives on Country and ecological loss are highly relevant to advancing a more holistic understanding of eco-anxiety that recognises its collective, place-based, and justice-related implications [18,61,63].

4.3. Normative and Political Dimensions

Many frameworks underplay the normative and political dimensions of eco-anxiety [11,38,51]. Young people frequently interpret their distress as a rational response to real threats and institutional failures, and some view eco-anxiety as a form of moral conscience or political emotion [4,51,58,70]. Media and public discourse oscillate between

pathologizing eco-anxiety as a mental health problem and projecting it as a sign of climate awareness, further complicating clinical and policy responses [14,24,27].

Conceptual frameworks that integrate political economy, climate justice, and intergenerational ethics are better equipped to address these tensions, but they are not yet widely embedded in measurement or intervention models used with young adults [20,70,71]. Addressing this omission is critical to advancing a more comprehensive understanding of eco-anxiety that recognises its connections to climate justice, structural inequality, and obligations to future generations.

4.4. Measurement and Definitional Challenges

Measurement instruments embody implicit conceptual models. The HEAS and other climate anxiety scales offer multidimensional operationalisations, but they differ in scope (climate-specific vs. broader ecological threats) and in the weight given to impairing symptoms versus normative emotions [7,10,79]. A recent review emphasises limited consensus on definitions, noting that terms such as climate anxiety, eco-anxiety, and environmental worry are used inconsistently across studies [11,13,38].

For young adults in OECD contexts, measurement models must differentiate between high but non-pathological concern, clinically significant distress, and politically charged moral emotions, while accounting for cultural and contextual factors [4,19,20].

4.5. Major Gaps in Existing Conceptual Frameworks

Across the typology, we identify several cross-cutting gaps:

Lack of definitional consensus: There is no widely accepted definition of eco-anxiety; frameworks variously emphasise symptoms, concern, existential distress, or sociopolitical affect, hampering cumulative knowledge and cross-study comparability [11,13,38].

Limited developmental specificity: Few models explicitly address developmental processes in young adulthood, such as identity formation, life course expectations, or transitions in education and work, despite clear relevance [4,35,70].

Under-theorisation of digital and media ecologies: Media and online environments strongly shape young adults' exposure to climate information and narratives, yet conceptual models rarely incorporate media ecologies or algorithmic amplification as determinants of eco-anxiety [24,27,70].

Insufficient attention to Indigenous and culturally diverse perspectives: In Australia and other OECD nations, Indigenous and minority communities experience distinctive forms of ecological grief, cultural loss, and climate injustice, but most frameworks are developed from Western, majority perspectives and do not incorporate Indigenous relational ontologies [20,61,63].

Limited integration of political-economy and justice perspectives: While some socio-ecological and justice-oriented frameworks exist, many empirical models remain individualistic, focusing on personal coping and resilience without addressing structural drivers or policy contexts (Galvin, 2025; Ojala & Lakew, 2023; Tuana, 2019) [20,70,71].

Ambivalence about adaptiveness: There is limited theorisation of when eco-anxiety is adaptive (e.g., motivating engagement) versus maladaptive (e.g., debilitating distress), and which moderators (e.g., efficacy, social support, self-compassion) are crucial, especially for young adults [48,54,56,57,74].

Measurement constraints: Existing scales may not capture the full relational and sociopolitical dimensions of eco-anxiety, and have been validated primarily in limited samples, with few rigorous cross-cultural validations in Australia and diverse OECD contexts [7,10,11,79].

4.6. A Novel Conceptual Typology and Future Trajectory

Building on the mapped frameworks and gaps, we propose a novel conceptual typology that positions eco-anxiety among young adults at the intersection of four interacting dimensions:

- a. Emotional–symptomatic (e.g., affective and physiological symptoms, rumination, functional impairment);
- b. Cognitive–appraisal (e.g., risk perception, uncertainty, efficacy, future expectations);
- c. Relational–existential (e.g., connection to nature, place attachment, meaning in life, intergenerational identity, responsibility);
- d. Sociopolitical–structural (e.g., policy trust, climate justice perceptions, exposure to climate events, media and education context).

Within this multidimensional space, existing framework families can be seen as emphasising particular quadrants, for example, clinical models foreground emotional–symptomatic aspects; risk and environmental psychology models highlight cognitive–appraisal and behavioural pathways; existential frameworks emphasise relational–existential concerns; socio-ecological and justice-oriented models foreground sociopolitical–structural drivers (See Figure 2).

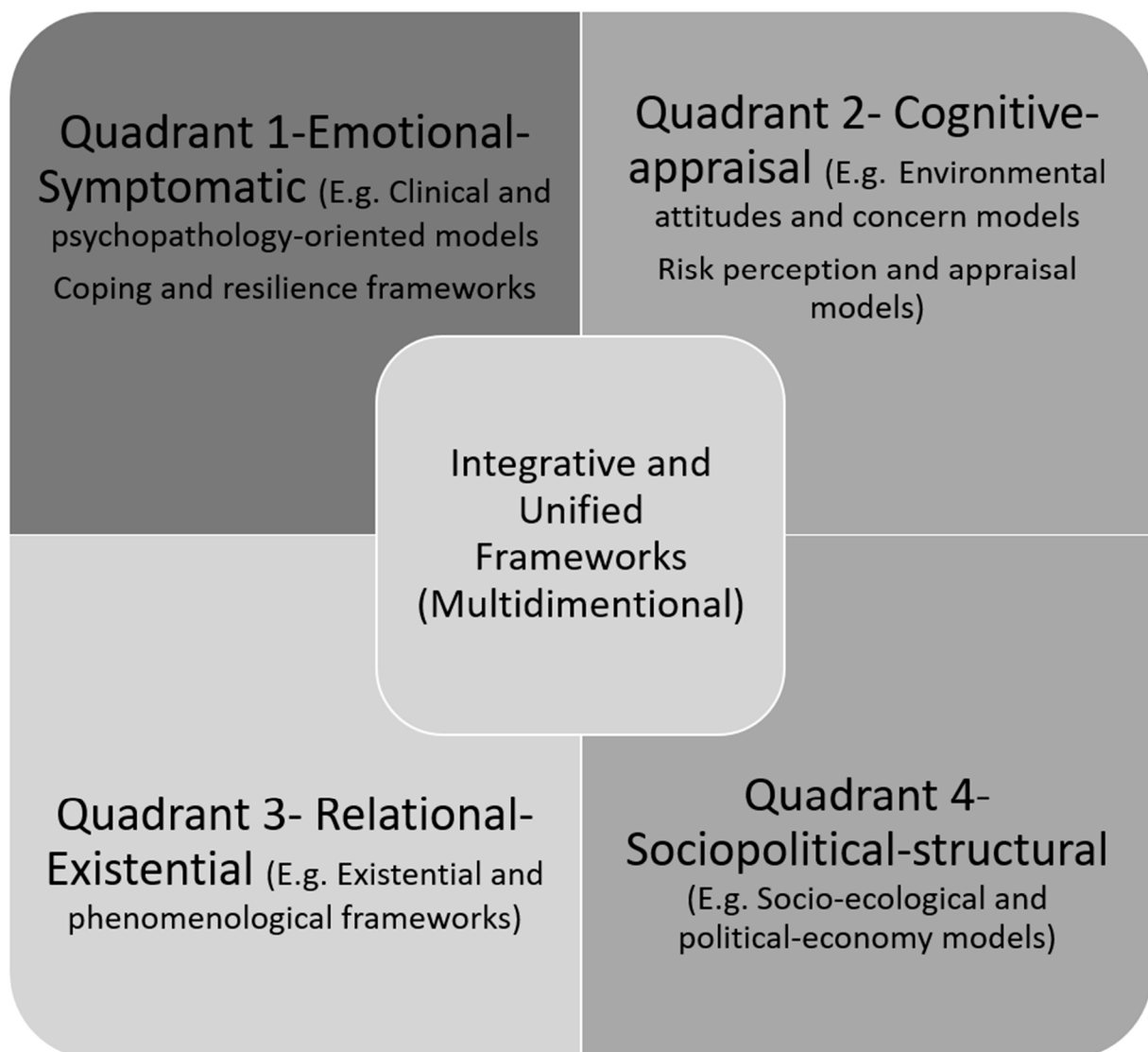


Figure 2. A novel conceptual typology.

Quadrant 1: Emotional-symptomatic (focus on affective symptoms, distress, and regulation).

Clinical and psychopathology-oriented models primarily conceptualise eco-anxiety in terms of emotional and somatic symptoms (worry, tension, sleep disturbance, intrusive thoughts, and functional impairment) directly mirroring symptom clusters used in anxiety and mood disorders. These models often assess eco-anxiety via symptom checklists and examine comorbidity with depression and generalised anxiety, clearly aligning them with the emotional-symptomatic quadrant [9,11,38]. Eco-anxiety is sometimes treated as a potential subtype of anxiety disorder or as part of broader internalising symptomatology, with an emphasis on distress and impairment rather than on cognitive appraisals or sociopolitical context [4,10].

Coping and resilience frameworks also sit primarily in this quadrant because they focus on how emotional distress is regulated and transformed. Stress-and-coping models describe problem-focused, emotion-focused, and meaning-focused strategies to manage climate-related worry, emphasising emotional outcomes such as reduced anxiety, improved wellbeing, and resilience [57,59]. Work on eco-anxiety highlights that coping strategies such as meaning-focused coping, collective action, and self-compassion can buffer emotional distress and prevent eco-anxiety from becoming debilitating, further underscoring the centrality of emotional regulation [18,48,73].

Quadrant 2: Cognitive–Appraisal (focus on perceptions of threat, efficacy, risk, values, and beliefs).

Environmental attitudes and concern models primarily conceptualise eco-anxiety as an intense form of environmental concern grounded in value-belief structures. These frameworks draw on constructs such as the New Environmental Paradigm, environmental concern scales, and environmental identity, emphasising beliefs about ecological degradation, perceived personal responsibility, and moral evaluation rather than symptoms per se [9,50]. In this tradition, eco-anxiety is often represented as heightened concern that mediates between environmental values and pro-environmental behaviour, clearly positioning it as a cognitive-appraisal state linked to beliefs, norms, and identity [9,52–54,56].

Risk perception and appraisal models explicitly view climate-related emotions as products of cognitive evaluations of threat, probability, severity, and efficacy. Protection Motivation Theory and the Extended Parallel Process Model, for example, conceptualise anxiety as arising when the perceived climate threat is high and coping efficacy is low, and they model climate anxiety as an anticipatory emotion shaped by appraisals of future harm under uncertainty [25,60]. Conceptual work on climate anxiety emphasises that worry and fear about climate change can be understood as appraisals of risk and control, influenced by information exposure and trust in institutions, which situates these frameworks squarely in the cognitive-appraisal quadrant [13,73].

Quadrant 3: Relational–existential (focus on meaning, identity, relationships with nature, and existential concerns).

Existential and phenomenological frameworks explicitly conceptualise eco-anxiety as rooted in fundamental concerns about death, meaning, isolation, and freedom/responsibility, rather than as a discrete clinical syndrome [38]. Qualitative studies using semi-structured interviews with adults and young people describe eco-anxiety in terms of anticipated loss of ecosystems, intergenerational injustice, guilt about personal impact, and chronic uncertainty about how to live ethically, emphasising meaning-making and identity rather than symptom counts [46,61]. One existential framework explicitly organises eco-anxiety around four core concerns—death, meaning, isolation, and responsibility—arguing that climate-related distress challenges basic assumptions about life and the future, which is paradigmatic of the relational-existential quadrant [38].

Related constructs such as ecological grief and solastalgia also belong in this quadrant because they focus on relational rupture with specific places, species, and cultural practices. Ecological grief work shows that young people, especially in Indigenous and rural communities, experience climate-related distress as grief over anticipated or actual ecological loss and cultural disruption, foregrounding relationships with land, community, and nonhuman nature [61–63]. These frameworks treat eco-anxiety as embedded in relational worlds and existential narratives, matching the relational–existential dimension of the typology.

Quadrant 4: Sociopolitical–structural (focus on systems, institutions, justice, and policy).

Socio-ecological and political-economy models explicitly locate eco-anxiety within multi-level systems that include family, community, institutions, and political–economic structures [20,69]. Policy-oriented reports emphasise that young people’s climate-related distress is shaped by schooling, media narratives, government communication, and perceived betrayal by political leaders, framing eco-anxiety as a response to structural conditions rather than purely individual vulnerability [4,19]. Cross-national surveys show that beliefs about governmental failure and intergenerational injustice are strongly associated with climate anxiety and feelings of powerlessness and betrayal, highlighting the sociopolitical drivers of eco-anxiety [4].

Political-economy analyses and justice-oriented frameworks further conceptualise eco-anxiety as a sociopolitical affect linked to extractivism, neoliberalism, and climate injustice, particularly in OECD countries with high per capita emissions and contested climate policies [20,71,87]. These approaches argue that eco-anxiety reflects not only fear of environmental degradation but also anger and disillusionment with political systems perceived as inadequate or disingenuous in addressing the crisis, aligning them strongly with the sociopolitical–structural quadrant [4,88].

4.7. Integrative and Eco-Anxiety-Specific Frameworks as Cross-Quadrant (Multidimensional)

Integrative and eco-anxiety-specific frameworks, such as the Hogg Eco-Anxiety Scale (HEAS) and unified conceptual models, deliberately span all four quadrants. The HEAS operationalises eco-anxiety as a four-dimensional construct comprising affective symptoms, rumination, behavioural symptoms, and anxiety about one’s personal impact on the planet, thereby capturing emotional–symptomatic, cognitive–appraisal, and behaviourally oriented aspects in a single model [7,79]. A lifespan review of eco-anxiety measures notes that many scales incorporate affective, cognitive, and functional dimensions, which cuts across quadrants 1 and 2 and hints at relational and functional impacts as well [11,49].

Recent conceptual work explicitly defines eco-anxiety as a sociopsychological state that encompasses internal emotional responses and social factors such as inequalities and perceived deficiencies in governmental responses, grounding it simultaneously in emotional–symptomatic, cognitive–appraisal, relational, and sociopolitical processes [13,21]. Emerging grounded theory studies conceptualise eco-anxiety as a signal of disrupted “relational ecology”, emphasising damaged relationships with place, community, and nonhuman nature, while also linking distress to structural failures and inequalities, thereby straddling the relational–existential and sociopolitical–structural quadrants [4,7,52,57]. Cross-national work on “eco-anxiety without borders” integrates cognitive, emotional, and political dimensions, offering multi-level frameworks that explicitly connect individual experience to sociopolitical context, again bridging all four quadrants [4,19].

Taken together, these rationales justify allocating each of the seven families primarily to one quadrant, while recognising that integrative and eco-anxiety-specific frameworks are deliberately multidimensional and therefore occupy the intersections of all four.

5. Conclusion and Implications

5.1. Conceptual Implications

It could be said that the current landscape of eco-anxiety research in young adults is rich but conceptually disjointed. Our review suggests that moving from fragmented frameworks toward pluralistic, integrative models is necessary to capture the complexity of eco-anxiety in Australia and other OECD contexts. Rather than seeking a single definitive model, future work should embrace eco-anxiety as a multidimensional sociopsychological state rooted in real environmental threats, developmental tasks, and sociopolitical structures. The novel conceptual typology that we proposed could be helpful in mapping the future research trajectory in eco-anxiety research.

5.2. Measurement and Implications for Future Research

Researchers should adopt and refine multidimensional measures such as the HEAS while expanding them to better capture relational and sociopolitical dimensions, and validating them in diverse young adult populations. Longitudinal and mixed-methods designs are needed to understand trajectories of eco-anxiety and its interplay with coping, engagement, and mental health over time.

5.3. Clinical, Educational, and Policy Implications

Clinicians working with young adults should avoid reflexive pathologisation of eco-anxiety, instead distinguishing between debilitating distress and proportionate moral emotion, and incorporating coping, meaning-making, and collective action into interventions. Educators and policy makers in Australia and other OECD countries should recognise eco-anxiety as a legitimate response to climate risk and policy uncertainty and design climate education and communication that fosters agency, efficacy, and hope without minimising threats. Policy frameworks addressing climate and mental health should include young people's voices and acknowledge climate justice concerns that underlie much eco-anxiety.

6. Potential Direction for Future Research in Australia and OECD Contexts

- Develop multi-level, mixed-methods models that empirically integrate all four dimensions, for example by combining symptom scales (e.g., HEAS), risk perception measures, nature connectedness and meaning scales, and indicators of policy trust and perceived justice.
- Pursue developmentally informed frameworks that consider how eco-anxiety interacts with emerging adulthood tasks (education, work, relationships, family planning) and how this differs across cultural and socioeconomic groups.
- Co-produce models with young people and Indigenous communities, embedding relational understandings of Country, intergenerational responsibility, and collective healing.
- Incorporate media and digital ecologies as explicit components, mapping how information exposure, online communities, and climate narratives shape appraisals and emotional responses.

7. Limitations of the Study

The authors would like to draw readers' attention to several limitations of the study, which should be considered when interpreting the findings of the study.

First, eco-anxiety remains conceptually heterogeneous, with studies variably defining it as climate worry, clinical anxiety, existential distress, moral emotion, ecological grief, or sociopolitical effect. The allocation of frameworks to the proposed seven-family and

four-quadrant typology therefore involved interpretive judgement, and some models legitimately span multiple categories.

Second, the identification of more than 100 frameworks reflects an inclusive mapping of theories, measurement models, applied pathway models, policy frameworks, and adaptations, rather than more than 100 independently validated eco-anxiety theories (we presented 62 highly relevant distinctive models). It should be noted that this study focused on identifying, mapping, and critiquing the theoretical and conceptual frameworks used to understand eco-anxiety rather than conducting a detailed comparative analysis between framework families. As a result, differences between frameworks derived from distinct disciplinary traditions, such as clinical, existential, and socio-ecological approaches, were not examined in depth. Future research could build on this review by undertaking a more systematic comparison of these frameworks, including their underlying assumptions, levels of analysis, and implications for understanding eco-anxiety.

Third, the review focuses on Australia and OECD countries and is consequently shaped by a predominantly Western, educated, industrialised, rich, and democratic evidence base, limiting transferability to Global South, Indigenous, collectivist, and highly climate-vulnerable settings.

Fourth, Indigenous and culturally diverse young adults are insufficiently represented in much of the existing research, and mainstream measures may inadequately capture relational understandings of Country, culture, collective wellbeing, and ecological loss.

Fifth, inconsistent age categories, heterogeneous measurement tools, and the predominance of cross-sectional, self-report, online convenience samples constrain developmental precision, cross-study comparison, and causal inference.

Sixth, the focus of this study is largely limited to critiquing conceptual models and frameworks and does not cover their ontological or epistemological underpinnings in depth, which we consider as requiring a separate investigation. However, some implications of ontological and epistemological specificities are reflected in our critique of the conceptual models and frameworks.

Finally, the conceptual typology presented in the study is an organising heuristic rather than a validated causal model and should be tested and refined through longitudinal, participatory, mixed-methods, and cross-cultural research.

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