

Unravelling the Knots: A Narrative Review on Eco-Anxiety, Pro-Environmental Behaviour and Mental Health

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To thoroughly explore the complex interconnection among eco-anxiety, mental health disorders, and involvement in pro-environmental actions. During the 21st century, climate change has become a significant concern for global health, becoming closely linked with worries about mental well-being. Known as eco-anxiety, people endure ongoing anxiety about environmental disasters, reflecting a sense of ecological breakdown. Although promoting pro-environmental actions is crucial in addressing this crisis, there's still a need to understand how eco-anxiety, mental health issues, and engagement in such behaviors are interconnected. Narrative Literature Review. We conducted a thorough exploration across eight electronic databases. Articles were assessed based on titles, abstracts, and full-text content to identify relevant studies focusing on the influence of change in climate on mental health, the association among eco-anxiety and mental illness, and the relationship among eco-anxiety and pro-environmental behaviours. Major themes that emerged from the literature are 1) Definitional Issues, 2) Psychological impact of the climate change, 3) Eco-anxiety as a mental health condition, 4) Assessment of eco-anxiety, 5) Eco-anxiety as a motivator for pro-environmental behaviour 6) Climate hope. Insufficient research exists on interaction among eco-anxiety, mental health issues, and pro-environmental behaviors. The current review emphasizes need for further investigation to clarify the positioning of eco-anxiety along its spectrum and to identify the various psychosocial factors that influence it.

Keywords: Eco-anxiety, Pro-environmental behaviour, Mental health conditions.

The 21st century has brought to light an alarming reality: climate change stands as one among the most potential threats to human health (Watts et al., 2018). In the current scenario, change in the climate emerges as a paramount challenge to both human and planetary well-being. According to Maibach et al. (2021) maintaining a stable climate stands as the utmost foundational factor influencing human health. Its far-reaching impacts extend beyond physical health concerns, delving into the realm of mental well-being. Various forms of extreme weather onset events exhibit distinct impacts on mental health. The link between sudden weather-related calamities, such as floods, wildfires, heatwaves, and cyclones, and

severe anxiety responses such as post-traumatic stress disorder (PTSD), has been thoroughly documented (Salcioglu et al., 2007). Emergency response procedures for such events are established, yet there remains a dearth of research into their long-term impact. The floods have been linked to enduring anxiety, depression, PTSD, increased aggression (particularly in children), and potentially suicide (Ahern et al., 2005). Moreover, Fritze et al. (2008a) argue that climate change has substantial implications for mental health, emphasizing the psychological distress and anxiety that arise from recognizing change in climate as a pervasive global concern. They outline three primary categories for the impacts of

change in climate on mental health: the initial trauma caused by severe weather events, the adverse effects faced by vulnerable communities due to disruptions in economic, political, social, and environmental factors, thirdly the emotional distress and anxiety stemming from viewing climate change as a worldwide environmental concern (Fritze et al., 2008a). Similarly, Doherty and Clayton (2011) propose a similar tripartite classification, distinguishing between direct impacts (such as acute traumatic events), psychosocial impacts “including social repercussions from phenomena like migration, drought, and interpersonal conflicts linked to change in climate”, and indirect effects (stemming from the uncertainty of the future or observations of its impacts).

Termed eco-anxiety, the psychological toll of witnessing gradual environmental shifts adds a new dimension to the climate crisis (Usher et al., 2019). The Australian Medical Association (2019) underscored the gravity of climate change and its anticipated severe health ramifications, particularly for vulnerable populations worldwide. As individuals grapple with the unfolding consequences, feelings of fear, despair, and frustration permeate discussions, echoing concerns for present and future generations. With the world’s collective consciousness increasingly tuned to the urgency of the climate crisis, there arises a pressing need to comprehend and address the anxiety it provokes. While the term “eco-anxiety” has garnered attention both in media and expert circles, its precise definition remains elusive. The operationalization of “eco-anxiety” remains unclear, as evidenced by the multitude of definitions and related terms found in existing literature. For instance, Albrecht (2011) introduced “eco-anxiety” to characterize a persistent apprehension regarding environmental catastrophe. However, “eco-anxiety” is also described as

mental distress or anxiety stemming from deteriorating environmental circumstances or as anxiety triggered by the ecological crisis (Usher et al., 2019). In a recent review by Pihkala (2020a) the most meticulous and elaborative elucidation of eco-anxiety has been delineated. As per the synthesis, eco-anxiety presents itself as a continual sense of worry or vague unease concerning environmental disaster, encompassing the overarching feeling that the fundamental ecological foundations of life are in decline (Albrecht, 2012). The descriptions of eco-anxiety emphasize its strong connection with fear and concern, but it also features aspects of uncertainty, unpredictability, and a sense of powerlessness, displaying a range of intensities. Moreover, eco-anxiety encompasses not only emotional dimensions such as anxiety or distress but also repetitive contemplation and impairment in functioning (Ojala et al., 2021). Various terms are utilized to delineate distress stemming from environmental factors. Ecological grief denotes the mourning experienced in reaction to actual or anticipated losses in the natural world, while solastalgia characterizes the distress arising from environmental changes affecting individuals directly within their home environment. Eco-angst encompasses a sense of despair emanating from the precarious state of the planet, and environmental distress reflects the emotional toll of witnessing the degradation of one’s home and surroundings. These terms, while sharing similarities with eco-anxiety, still exhibit overlaps with anxiety and present inconsistencies in their conceptualization, highlighting the complex relationship between environmental distress and anxiety (Coffey et al., 2021).

Current research presents inconsistent perspectives on whether eco-anxiety should be regarded as a natural or pathological occurrence. Both forms may exist, though pathological levels are deemed rare

(Verplanken et al., 2020). They contend that treating climate change anxiety as a mental disorder would be erroneous, linking it positively to pro-environmental behaviour rather than pathological concern, other studies suggest associations with generalized anxiety experience and depression (Clayton & Karazsia, 2020). Eco-anxiety may contribute to broader syndromes of intrusions and automatic negative thoughts in some instances (Taylor, 2020), necessitating more investigation into its potential maladaptive nature and its place along the anxiety continuum. Moreover, a study in research indicates that eco-anxiety represents an existential phenomenon closely linked to human reactions to environmental decline. It encompasses concerns such as anxiety about mortality, the pursuit of significance, interpersonal connections, authenticity, and deliberations on personal autonomy. This challenges the idea of addressing it merely as a disorder (Budziszewska & Jonsson, 2021).

Anxiety, fundamentally, is an adaptive emotion that activates fight or flight response to potential threats, facilitating preparedness and adaptive responses. Yet, it may turn maladaptive when these reactions are excessive or dysfunctional compared to the genuine threat. In light of the real danger presented by climate change, defining what qualifies as a typical or beneficial degree of eco-anxiety remains unclear. Therefore, it's important to distinguish constructive and harmful expressions of eco-anxiety (Doherty & Clayton, 2011). Maladaptive eco-anxiety refers to "experiencing psychological distress alongside an inability to respond effectively to climate change, while adaptive eco-anxiety serves as a motivator for climate activism, encouraging collective action and individual mitigation efforts" (Taylor, 2020). Among the various moderation strategies, pro-environmental behaviours play a crucial role, encompassing actions that either minimize

the negative environmental impact or actively contribute to its betterment (Steg & Vlek, 2009). Examples of such behaviors include conservation of energy consumption, waste management, reducing plastic consumption, monitoring water usage and adopting sustainable goods. However, recent studies examining the relationship between eco-anxiety and pro-environmental behaviors have produced uncertain findings. While certain research suggests a positive association between climate change-related anxiety, environmental identity, and participation in pro-environmental actions, other studies have not consistently corroborated this link (Gao et al., 2021).

Attentional bias, as a cognitive element, could affect the range of the influence of eco-anxiety on the participation in pro-environmental actions (Bar-Haim et al., 2007). It entails the selective directing of attention towards specific information, extensively researched in relation to anxiety. When individuals exhibit heightened sensitivity to potential threats, they may develop a negative bias in attention, which can contribute to the emergence of various psychopathological conditions such as depression and anxiety disorders. Yet, studies indicate that a tendency to focus attention on potential threats may serve as an advantage in scenarios of real peril, aiding in the execution of protective actions. For example, Notebaert et al. (2016) discovered that individuals with high trait anxiety, combined with a focus on bushfire-related threats, experienced difficulty engaging in preparatory actions, whereas those with low trait anxiety and a similar focus showed improved readiness. Based on several research, it appears conceivable that the association among eco-anxiety and pro-environmental behaviors might be contingent upon the level of attention directed toward climate-related information. Additionally, the nature of this correlation could differ

depending on whether the information concerns strategies for mitigating climate change and the consequences of change in climate. However, no studies have examined the potential interplay between, eco-anxiety, Mental Health Conditions, and following participation in pro-environmental behaviours (Mathers-Jones & Todd, 2023).

Rationale of the study

In current research, there is a noticeable increase in attention toward the intricate relationship among environmental issues, individual actions, and mental wellness. With heightened global awareness of climate change, eco-anxiety has emerged as a significant phenomenon, characterized by heightened apprehension and emotional difficulties in response to environmental degradation. At the same time, there is a growing acknowledgment of the significance of engaging in pro-environmental actions to tackle ecological challenges. Despite the acknowledgement of individual psychological responses to environmental issues, a comprehensive understanding of the correlations among eco-anxiety, eco-friendly behaviour, and mental health conditions remains understudied. This narrative review aims to bridge this gap by synthesizing existing literature and exploring the multifaceted connections among these variables.

Grasping the emotional and psychological impacts of eco-anxiety is crucial for understanding its implications for mental health and its influence on pro-environmental behavior. The reciprocal relationship between mental health conditions and engagement in pro-environmental behaviors adds complexity, necessitating a comprehensive review to understand these concepts fully. This research aims to enhance current understanding the psychological aspects of eco-anxiety and the way it influences the pro-environmental behaviors.

It aims to clarify how environmentally conscious actions can affect mental well-being and to pinpoint strategies for alleviating the adverse mental health consequences linked to eco-anxiety.

In a world facing urgent environmental challenges, this narrative review aims to illuminate the connections among eco-anxiety, pro-environmental behavior, and mental health conditions. By doing so, it hopes to lay the groundwork for future research, inform public discourse, and guide the development of interventions promoting environmental sustainability and mental well-being.

Method

We conducted an extensive review of the literature by searching various databases, including Scopus, Web of Science and PubMed. We used specific keywords such as eco-anxiety, climate change emotions, psychological effects, and pro-environmental behavior to locate relevant studies. We included both scoping reviews and original research articles to gather a comprehensive range of insights into the psychological effects of climate change, the connection between eco-anxiety and mental health conditions, and the correlation among eco-anxiety and pro-environmental behaviors.

To evaluate methodological rigor, we utilized a checklist adapted from Hawker et al. (2002). This checklist facilitated the extraction and assessment of data concerning different components of each study, such as abstract and title, introduction and objectives, methods and data, sampling procedures, data analysis, potential biases, results, transferability or generalizability, implications, and utility. Each study underwent evaluation using this tool, with scores ranging from 9 (reflecting very low methodological rigor) to 36 (indicating high methodological rigor), offering insights into the quality of each paper.

A method of iterative consensus-building was utilized to analyze the literature and clarify the social context of the findings. This method included in-depth examination and revisiting of papers by the research team to first pinpoint subthemes, followed by reaching consensus on the major themes arising from the literature. By employing this method, a comprehensive understanding of the relationships among eco-anxiety, psychological effects, and pro-environmental actions was achieved.

Results

Definitional issues

Ecological anxiety, commonly referred to as “eco-anxiety, describes heightened distress experienced in response to ecological crises, notably anthropogenic climate change” (Pihkala, 2020b). Studies suggest “that individuals facing distress related to climate often display symptoms like depression, pathological anxiety, insomnia, panic attacks, and obsessive thoughts” (Verplanken et al., 2020). Certainly, while eco-anxiety isn’t formally classified as a clinical disorder, the American Psychiatric Association has recognized the psychological ramifications of climate change on mental well-being. They describe eco-anxiety as a persistent apprehension regarding environmental catastrophe (Clayton, 2020). Even with this acknowledgment, some contend that constraining eco-anxiety to such a limited definition could mistakenly label a fundamentally logical reaction as pathological (Pihkala, 2020b). Given the real danger posed by climate change and ecological degradation, feeling fear and concern can be seen as a reasonable and comprehensible response (Clayton, 2020; Heeren & Asmundson, 2023).

The influence of climate change on mental health.

Climate change is widely considered as a primary universal health concern in the 21st

century, presenting a substantial risk to public health worldwide (Watts et al., 2018). This encompasses not only the gradual impacts of climate change but also its implications for mental health, commonly referred to as eco-anxiety (Usher et al., 2019). Numerous individuals express concerns about their well-being, that of their children, and the prospects for future generations, experiencing profound emotions of grief, despair, and frustration as they observe the impact of change in climate. Recognizing the anxiety triggered by the climate crisis is essential, particularly in light of its heightened global recognition (Coffey et al., 2021). While climate change typically prompts considerations of its environmental repercussions and physical health implications, it also exerts an impact on individuals’ mental well-being. The recognition of how climate change-induced weather events and natural disasters affect mental health has been long-standing, resulting in several consequences such as “disturbed sleep patterns, elevated stress levels, heightened anxiety and depression, post-traumatic stress disorder, and suicidal ideation” (Warsini et al., 2014). Yet, there’s a shortage of research focused on the mental and emotional impacts resulting from the recognition of gradual environmental shifts directly associated with climate change (Pihkala, 2018).

Experiences with observable effects linked to climate change, along with people’s interpretations of these occurrences, significantly influence their perceptions of risk and emotional reactions to the issue (Reser et al., 2014). Many individuals often use their first-hand experiences of severe weather events as a basis for assessing the validity of climate change (McDonald et al., 2015). Encountering occurrences such as flooding and hurricanes can heighten pessimistic feelings about climate change, making the phenomenon feel more concrete and

pressing (Bergquist et al., 2019). This process of experiential learning often leads to the intuitive association of negative emotions evoked by extreme weather events with climate change, influencing individuals' perceptions of climate-related risks (Marx et al., 2007). Berry (2010b) has categorized the impact of change in climate on mental health into three main groups: direct, indirect, and vicarious. Many studies have predominantly concentrated on an immediate effect that emerge after experiencing severe weather phenomena like floods, earthquakes, or hurricanes (Berry et al., 2010b). These significant disruptions in life can precipitate conditions like "Post-Traumatic Stress Disorder (PTSD), depression disorders, anxiety disorders, substance use disorders, and suicidal ideation" (Hayes et al., 2018; Cianconi et al., 2020a). Moreover, the secondary ramifications of climate change can similarly influence mental well-being through their effects on the economy, changes in migration patterns, damage to physical and social infrastructure, scarcity of food and water, and escalation of conflicts. These factors have been associated with heightened levels of stress, grief, anxiety, and depression (Hayes et al., 2018). Moreover, individuals who haven't personally encountered the impacts of climate change, either directly or indirectly, might still undergo distress solely because they are aware of an ongoing global crisis (Pihkala, 2018). These findings underscore the intricate connections between environmental concerns, individual behaviours, and mental well-being. They highlight the imperative to explore how eco-anxiety, driven by both direct and indirect impacts of climate change, influences pro-environmental behaviour and mental health outcomes.

Eco-anxiety as a mental health condition

Changes in climatic conditions are already recognized to have an impact on public health (Berry et al., 2010a; Berry et al., 2010b) and

can have direct or indirect and short term or long term impact on mental health (Cianconi et al., 2020b; Fritze et al., 2008b). Essentially, anxiety functions as a beneficial emotion, notifying individuals of possible threats. The cognitive, emotional, and physiological mechanisms within anxiety are pivotal in readying individuals for potentially risky circumstances and aiding in adaptive behavioral reactions (Grupe & Nitschke, 2013). However, anxiety can become maladaptive when these processes malfunction or when the level of anxiety exceeds the actual threat present (Barlow, 2004). With the significant threat of climate change, there is ongoing debate about determining the standards for what qualifies as typical, suitable, or beneficial eco-anxiety (Doherty & Clayton, 2011). Hence, it's crucial to distinguish adaptive and maladaptive expressions of eco-anxiety.

Maladaptive eco-anxiety entails psychological distress combined with an inadequate reaction to climate change, whereas adaptive eco-anxiety drives climate activism, encouraging both collective and individual efforts toward mitigation (Taylor, 2020).

Assessment of eco-anxiety

The latest UN report on climate change, as of press time, unequivocally confirms humanity's role in global warming and has sparked widespread concern about the present and potential future catastrophic outcomes (Intergovernmental Panel on Climate Change, 2021). The heightened visibility of climate change in 2019, coupled with comprehensive scientific analysis, has led to increased media coverage of the phenomenon. News coverage now extends beyond environmental degradation to include its effects on individuals, notably eco-anxiety (Clayton & Karazsia, 2020). A research study introduced three new questionnaires: the EGuiQ-11, a questionnaire consisting of 11

items focusing on eco-guilt; the EGriQ-6, a 6-item questionnaire addressing ecological grief; and the EAQ-22, a questionnaire comprising 22 items exploring eco-anxiety. A nuanced comprehension of eco-guilt, ecological grief, and eco-anxiety concerning climate change and the ecological crisis was achieved through a multi-stage factor analysis, revealing vigorous scales. Among the three emotional constructs, the eco-anxiety domain exhibited the most diversity, featuring a comprehensive array of items primarily centered on ecological crisis concerns. These items converged into two discernible factors: habitual ecological worry and negative consequences of eco-anxiety. The habitual ecological worry factor encompasses externally oriented apprehensions regarding climate change and the ecological crisis, reflecting emotional states characterized by fear, alarm, and worry about uncertain futures or unsettling alterations (Verplanken & Roy, 2013). Additionally, this factor encompasses concerns for others and feelings of anger toward environmentally harmful behaviour exhibited by individuals, leaders, or countries. It represents a form of “practical anxiety” and indignation, which may be considered normative reactions to the ecological crisis (Sangervo et al., 2022). On the flip side, the adverse effects of eco-anxiety manifest in concrete physical, emotional, or behavioral outcomes, such as disrupted sleep, muscle tension, increased alertness, and eco-paralysis—“an inability to effectively tackle ecological issues in an uncertain environment”. This factor also encompasses functional and social impairment, such as diminished performance in academic or professional settings and conflicts with others. While the habitual ecological worry factor may signify a more adaptive form of anxiety, the negative consequences factor likely represents a less adaptive manifestation. Future research should aim to determine if the negative

impacts arising from eco-anxiety factors represent clinically significant levels of anxiety and explore how these factors predict psychological resilience in the context of climate change (Ágoston et al., 2022).

Eco-anxiety and pro-environmental behavior (Eco-anxiety as a motivator)

Additionally, there is evidence signifying that eco-anxiety may coincide with pro-environmental behaviours, including climate activism, which could potentially mitigate the effects on symptoms of Major Depressive Disorder (Boluda-Verdú et al., 2022). An effective approach to mitigating environmental damage involves participating in pro-environmental behaviors, which include actions that either cause minimal harm to the environment or actively contribute to its improvement (Steg & Vlek, 2009). Eco-anxiety found to have linked with many mental health consequences, including depression, anxiety, stress, sleep disturbances, diminished self-reported mental well-being, functional impairment, and hesitancy towards parenthood. These correlations were especially significant among demographics with heightened apprehensions about climate change, women, individuals living in economically disadvantaged nations, and younger age brackets.

The ongoing debate among researchers regarding the correlation among eco-anxiety and pro-environmental behaviour underscores the complexity of the issue. While some researchers propose that eco-anxiety catalyzes pro-environmental actions, recommending that people may engage in such behaviours as a coping mechanism to alleviate their anxiety about environmental concerns (Heeren et al., 2022). others argue that eco-anxiety may not necessarily translate into actual behavioural change or may even hinder such actions (Clayton & Karazsia, 2020). The differing viewpoints

regarding the connection between eco-anxiety and pro-environmental behavior are essential factors in contemplating the narrative review examining eco-anxiety, pro-environmental behavior, and mental health. The review seeks to illuminate the complex connections among these variables by consolidating prior research and analyzing the subtleties of their relationship. Moreover, the notion of “eco-paralysis,” wherein excessive levels of eco-anxiety inhibit individuals from taking tangible steps toward environmental action, adds another layer of complexity to this dynamic. Understanding how eco-anxiety may both motivate and hinder pro-environmental behaviour is essential in crafting effective treatment and strategies to improve both environmental sustainability and mental well-being. Therefore, through untangling the complexities of the linkages between eco-anxiety, pro-environmental behavior, and mental health, the narrative review aims to enhance comprehension of these intertwined concepts and offer valuable perspectives for guiding future research and intervention endeavors.

Discussion

Climate change is universally acknowledged as a important global health crisis of this current era, employing a substantial influence on people’s health across the globe (Watts et al., 2018). Its effects extend beyond the evident environmental changes, infiltrating mental health realms, often labelled as eco-anxiety (Usher et al., 2019). Understanding the psychological impacts of eco-anxiety is pivotal in comprehending its implications for mental health. Additionally, it is important to inspect the impact of eco-anxiety on pro-environmental behavior to develop successful approaches for promoting sustainable actions. The complex relationship between mental health issues and involvement in pro-environmental

behaviors adds another layer of complexity, emphasizing the necessity for a thorough examination to understand these intricacies fully. The fundamental objective of the study is to enhance the current understanding in various significant aspects. Initially, it focuses on exploring the psychological aspects of eco-anxiety and its potential impact on either facilitating or hindering pro-environmental behaviors. This endeavor aims to provide valuable perspectives on the complex interplay among these concepts. Secondly, seek to elucidate the impact of engaging in environmentally friendly behaviours on mental health outcomes, thereby shedding light on the reciprocal nature of these interactions. This review aims to identify possible interventions and tactics to mitigate the adverse mental health impacts linked with eco-anxiety, promoting a comprehensive comprehension of the interrelations between eco-anxiety, pro-environmental behavior, and mental well-being. These contributions aim to enrich the understanding of these complex phenomena and inform future research and intervention efforts in this field. The mental health implications of climate change are “multifaceted, encompassing sleep disturbances, stress, anxiety, depression, and post-traumatic stress disorder” (Warsini et al., 2014). Encounters with extreme weather events, such as flooding and hurricanes, intensify negative emotions and shape risk perceptions regarding climate change (Reser et al., 2014). Berry et al. (2010a) categorizes the mental health impacts into direct, indirect, and vicarious effects, highlighting conditions like “PTSD, depression, anxiety disorders, and substance use disorders” following exposure to extreme weather events. Indirect effects, including economic repercussions and social disruptions, also contribute to “heightened stress, grief, anxiety, and depression” (Hayes et al., 2018). Moreover, awareness of the environmental crisis can induce distress even

among those not directly affected by its consequences (Pihkala, 2018).

Ecological anxiety, colloquially known as eco-anxiety, delineates an elevated state of distress triggered by ecological crises, particularly anthropogenic climate change (Pihkala, 2022). Studies suggest that individuals grappling with climate-related distress often manifest symptoms including “depression, pathological anxiety, insomnia, panic attacks, and obsessive thinking” (Verplanken et al., 2020). While eco-anxiety isn’t formally classified as a clinical disorder, the American Psychiatric Association has recognized the mental health impacts of climate change, describing eco-anxiety as an enduring worry about environmental disasters (Clayton, S., Manning, C., Krygsman, K., & Speiser, 2017). Anxiety, fundamentally, serves as a mechanism to warn individuals about potential threats, with cognitive, emotional, and physiological processes aiding in adaptive responses (Grupe & Nitschke, 2013). However, when anxiety exceeds the actual threat or its processes malfunction, it can become maladaptive (Barlow, 2004). Eco-anxiety, a mental health condition arising from concerns about climate change, presents a complex scenario wherein distinguishing between adaptive and maladaptive forms is crucial (Doherty & Clayton, 2011). Maladaptive eco-anxiety is characterized by psychological distress and an ineffective reaction to climate change, while adaptive eco-anxiety triggers climate activism and mitigation efforts (Taylor, 2020).

Eco-anxiety has been associated with various adverse mental health outcomes such as depression, anxiety, stress, insomnia, reduced self-reported mental well-being, functional impairment, and hesitancy to have children (Boluda-Verdú et al., 2022). Despite these negative effects, there is evidence suggesting that eco-anxiety may coincide with pro-environmental behaviours,

including climate activism, which could potentially mitigate symptoms of Major Depressive Disorder (Boluda-Verdú et al., 2022). These associations between eco-anxiety and mental health outcomes are specifically notable among populations with heightened concerns about climate change, women, individuals residing in economically disadvantaged countries, and younger age groups. While some researchers propose that eco-anxiety aids as a catalyst for pro-environmental actions, suggesting that individuals may engage in such behaviours as a coping mechanism to alleviate their anxiety about environmental concerns.

A research study introduced three new questionnaires: the EGuiQ-11, a questionnaire consisting of 11 items focusing on eco-guilt; the EGriQ-6, a 6-item questionnaire addressing ecological grief; and the EAQ-22, a questionnaire comprising 22 items exploring eco-anxiety (Ágoston, 2022). The EAQ-22 focused primarily on concerns related to the ecological crisis, with items coalescing into two distinct factors: habitual ecological worry and negative consequences of eco-anxiety (Clayton & Karazsia, 2020). The habitual ecological worry factor reflects fear, alarm, and worry about uncertain futures or disturbing changes, while the negative consequences factor delineates tangible physical, emotional, or behavioural repercussions, including poor sleep, muscle tension, and heightened vigilance (Verplanken & Roy, 2013).

Hope, both passive and constructive, plays a pivotal role in addressing the challenges posed by climate change. Scholars like Ojala (2016) have delineated between these forms of hope, emphasizing their significance in motivating individuals to engage with climate action. In the realm of climate activism, hope emerges as a crucial factor, particularly when confronted with

daunting odds of success (Bury et al., 2020). Despite the complexity of climate-related issues, hope serves as a driving force, providing resilience and determination to pursue a better future amidst adversity (Oettingen & Chromik, 2017). This conceptualization of hope encompasses motivational factors and beliefs in personal efficacy, rooted in individuals' commitment to environmental values and moral convictions (Snyder, 2000). Moreover, hope acts as a catalyst for collective action, illuminating pathways for community engagement in addressing climate change (Bury et al., 2020). Research indicates that hope mediates the relationship between the perceived likelihood of success and support for climate action, particularly within highly committed participant groups. Individuals deeply invested in climate-related outcomes are spurred by hope, especially in situations where success is conceivable but uncertain (Bury et al., 2020). This underscores hope's unique motivational function in inspiring action amid challenging circumstances.

In a world where environmental challenges are becoming increasingly urgent, this narrative review endeavors to shed light on the intricate connections among eco-anxiety, pro-environmental behavior, and mental health conditions. By unraveling these knots, this review provides a foundation for future research, informs public discourse, and guides the development of interventions that promote both environmental sustainability and mental well-being.

Conclusion

Understanding the emotional and psychological impacts of eco-anxiety is pivotal in comprehending its implications for mental health. Moreover, investigating the way eco-anxiety influences pro-environmental behaviour is crucial for devising effective strategies to encourage

sustainable actions. Numerous psychosocial determinants are pivotal in determining the positioning of eco-anxiety along its continuum. Several literatures highlight the importance of climate activists, who demonstrate the ability to effectively respond to climate change, serving as drivers for promoting collective action and individual mitigation efforts. Moreover, attentional mechanisms significantly influence the positioning of eco-anxiety along this continuum. Nevertheless, beyond these factors, many other psychosocial determinants remain largely unexplored in research. This study has significantly advanced understanding in several key aspects. It has provided valuable insights into the psychological dimensions of eco-anxiety and its potential impact on driving or hindering pro-environmental actions, thereby enhancing comprehension of the intricate relationships among these constructs. Additionally, it has shed light on the reciprocal nature of the relationship between engagement in environmentally friendly behaviours and mental health outcomes, contributing to a deeper understanding of the dynamics at play.

After thoroughly examining existing literature and considering perspectives from multiple authors, this narrative review presents a definition of eco-anxiety, *"the transient experience of difficult emotional and mental states arising from knowledge about climate change and its disastrous consequences, resulting in either appraisal-focused, problem-focused, emotion-focused and/or occupation-focused coping as a response to alleviate the distress experienced by the individual."* These findings hold significance in enriching comprehension of these complex phenomena and offer valuable insights to guide future research endeavours.

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