

COPING WITH THE CLIMATE CRISIS:
EXPLORING ART THERAPY FOR SUSTAINABLE MENTAL HEALTH

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ABSTRACT

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As devastating as the changes to the physical environment are, we have yet to fully grasp the mental health implications of the current climate crisis. Research has recently emerged which highlights specific mental health challenges linked to climate change. For example, eco-anxiety has been described as severe and habitual ecological worrying that does not lead to environmental activism or proactive behavior. Eco-grief includes feelings of powerlessness, helplessness, and an unresolved sense of loss related to the climate crisis. The current project adopted a theoretical methodology to explore how art therapy can address these mental health challenges. Data analysis included a systematic literature review, a critique of the literature, and a discussion of existing gaps. Eco-art therapy was suggested as a valuable therapeutic service which uniquely addresses the psychological impacts of the ecological crisis. The potential of eco-art therapy to facilitate creative expression, emotional exploration, as well as cultivate a connection with the natural environment was discussed. Furthermore, combining art therapy with nature-based therapies may facilitate engagement in pro-environmental behavior. Integrating art therapy and nature-based therapies may reduce mental health challenges associated with the climate crisis while playing a significant role in creating change.

Keywords: art therapy, climate change, climate crisis, mental health, eco-anxiety, eco-grief, sustainability, theoretical research

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Introduction

As Davenport (2017) points out, “we find ourselves at a pivotal time in human history, an era marked by heightened peril and tremendous possibility” (p. 19). The challenges posed by the climate crisis in the realms of environmental and physical health have been well documented (Berry, Bowen, & Kjellstrom, 2010; Laidlaw & Beer, 2018; Wiley, 2019; World Health Organization, 2008). However, research has only recently emerged which highlights the widespread mental health challenges linked to climate change (Clayton, Manning, Krygsman, & Speiser, 2017; Davenport, 2017; Frye, 2019; Watts, Adger, & Agnolucci, 2015). In this research project, I investigated the psychological impacts of the climate crisis and suggested therapeutic services to meet mental health needs. As such, this paper will begin with a review of literature on the climate crisis, mental health, and art therapy. This section will include a personal reflection on inherent biases and current contexts that have inevitably shaped my research. Next, limitations and gaps in current literature will be highlighted. I will then introduce the primary and secondary research questions. Following this, the theoretical methodology chosen for this project will be described in detail. I will then engage in a discussion of art therapy and nature-based therapy services. Within this discussion section, I will consider sustainable art therapy practices. Systemic perspectives on climate change and climate justice will also be discussed. I will then review implications and limitations of this project. Lastly, I will outline specific recommendations for future research.

Literature Review

Wiley (2019) calls for a dramatic increase in therapy services for the psychological impacts of climate change. In line with this, Horton (2007) describes the current state of mental health resources as “inadequate, insufficient and inequitably distributed” (p. 806). As such, this literature review will discuss art therapy as a potential service to address specific mental health implications of climate change. I will begin this literature review by describing the current climate crisis, outlining historical perspectives of climate change, and defining climate justice. Next, I will highlight eco-anxiety and various forms of eco-grief as novel mental health challenges related to the climate crisis. I will then introduce art therapy and demonstrate why art therapy services are currently needed. To complete this literature review, research was selected from the fields of creative arts therapies, family and group therapies, counselling, psychology, sociology, medicine, biology, and environmental studies.

The Climate Crisis

The current climate crisis has “the capacity to damage human health in multiple ways” (Laidlaw & Beer, 2018, p. 284). Each of the Earth’s central systems (i.e., geosphere, biosphere, hydrosphere, and atmosphere) are essential in maintaining the natural environment (Clayton et al., 2017). Climate change involves shifts in these interdependent systems and can result in phenomena such as increases in average temperatures, severe weather events, rising sea levels, and changes in wildlife populations (Clayton et al., 2017; World Health Organization, 2008). These shifts in the Earth’s natural rhythms are perpetuated by the continual addition of greenhouse gases into the atmosphere (Clayton et al., 2017; World Health Organization, 2008). Significant challenges for people worldwide may subsequently come from lack of food and clean water, spread of vector-borne diseases, and increased exposure to heat (Berry, Bowen, & Kjellstrom, 2010). An overwhelming majority of scientists agree that global heating from greenhouse gases is caused by human activity (Archer & Rahmstorf, 2010). Notably, greenhouse gases occur naturally and are essential to survival on our planet (United Nations, 2019). However, the amount of greenhouse gases in the atmosphere have risen to unprecedented levels (i.e., following over a century of large-scale agriculture, deforestation, and industrialization) (United Nations, 2019). Reports from the Intergovernmental Panel on Climate Change (IPCC) further support the severity of these anthropogenic impacts (Connor, 2010). Today, a growing number of people are calling for change and “arguing for a shift to an ecologically sustainable model, embracing regenerative and re-spiritualized attitudes toward nature” (Palamos, 2016, p. 88).

Literature from environmental studies and psychology help to contextualize the current problematic relationship between human beings and the environment (Higley & Milton, 2008). Due to the abundance of research and theoretical perspectives on human interaction with the environment, this literature review will not provide an exhaustive description of this topic. Rather, the concept of *human-nature dualism* will be emphasized (Flowers, Lipsett, & Barrett, 2014; Laszloffy & Twist, 2019). For instance, many authors in environmental studies argue that a socially constructed human-nature dualism largely contributes to environmental problems (Flowers, Lipsett, & Barrett, 2014). This term implies a cognitive separation between humans and non-human others (Flowers, Lipsett, & Barrett, 2014). In Western society, we are generally socialized to view nature as “something that exists outside of us, separate from us, and as

something that is here for us to use at our will” (Laszloffy & Twist, 2019, p. 14). Furthermore, daily life in Western society often consists of limited or no meaningful contact with nature (Flowers, Lipsett, & Barrett, 2014). This disconnection is one possible explanation for why human beings have mistreated the environment to such an extent (Flowers, Lipsett, & Barrett, 2014; Laszloffy & Twist, 2019). Furthermore, a dualistic perception allows human beings to control, dominate, and exploit natural resources – which perpetuate the negative impacts of climate change (Flowers, Lipsett, & Barrett, 2014; Laszloffy & Twist, 2019). Laszloffy and Twist (2019) point out that, historically, this oppressive viewpoint has involved power and domination by groups which are predominately White and male. As a result, how Western culture has come to know the environment is deeply interconnected with oppression and colonization (Flowers, Lipsett, & Barrett, 2014; O’Connor, 1995; Palamos, 2016). For this reason, the climate crisis must be viewed through a social justice lens (Flowers, Lipsett, & Barrett, 2014; Gifford & Gifford, 2016; Laszloffy & Twist, 2019).

Climate Justice

Gifford and Gifford (2016) point out that “climate change is a social justice issue” (p. 294). The term *climate justice* is currently being used to bring human rights and equality into climate change discourse (Davenport, 2017; Klein, 2014). This form of intersectional environmentalism has recently gained momentum, as environmentalists have been held accountable for a lack of social justice advocacy (Pezzullo & Sandler, 2007). Climate justice recognizes that some groups of people are, and will be, more deeply impacted by the changing environment than others (Gifford & Gifford, 2016; Klein, 2014). For instance, Black people, Indigenous people, and people of color are disproportionately impacted by climate change (Davenport, 2017; Pezzullo & Sandler, 2007). Older adults, children, people with disabilities, those with pre-existing mental health challenges, people of lower socioeconomic status, and other marginalized communities are disproportionately affected as well (Davenport, 2017; Gifford & Gifford, 2016; Klein, 2014). As such, racist policies and systems of oppression that perpetuate injustice for people with minority identities are also leading to environmental injustice (Pezzullo & Sandler, 2007). Mental health services for individuals with minority identities, especially those who have been unfairly impacted by climate change, are urgently needed.

Davenport (2017) points out that fearing the loss of privilege can be a powerful driver of dualistic thinking and climate change denial. Mental health professionals can assist privileged

clients in investigating conscious and unconscious biases that contribute to climate-related inequality (Davenport, 2017). As such, notions of social privilege and dualistic thinking must be reflected on and actively challenged (Davenport, 2017; Gifford & Gifford, 2016; Klein, 2014). Mental health services are urgently required to support clients in processing these underlying biases and examining their personal relationships with the natural environment (Gifford & Gifford, 2016). Positive change inevitably requires emotional resiliency to face adversity and move forward (Davenport, 2017). Although it is important to avoid pathologizing psychological responses to adversity, we must still consider the mental health implications of the climate crisis (Berry, Bowen, & Kjellstrom, 2010).

Climate Change and Mental Health

Research has only recently emerged which highlights specific psychological challenges linked to climate change. For example, Wiley (2019) points out that post-traumatic stress disorder, depression, addictions, increased stress, increased aggression, and suicidal ideation are challenges connected to climate change. Davenport (2017) also reports increases of acute trauma, particularly related to climate change-induced disasters (e.g., floods, droughts, or fires). To narrow the scope of this research paper, natural disasters and accompanying trauma, survivor's guilt, and recovery fatigue will not be discussed (Davenport, 2017). This literature review will instead emphasize novel mental health concerns related to climate change. Specifically, newly emerging descriptions of *eco-anxiety* and various forms of *eco-grief* will be reviewed in detail.

Eco-Anxiety

Eco-anxiety is described as severe and habitual ecological worrying that may result in sleep disturbances, loss of appetite, social withdrawal, and panic attacks (Gifford & Gifford, 2016). Strong feelings of shame, grief, and/or guilt may be associated with eco-anxiety (Pihkala, 2018). A key characteristic of eco-anxiety is that the habitual worrying does not lead to environmental activism or proactive behavior (Gifford & Gifford, 2016). As such, eco-anxiety prevents people from engaging in both environmental activism and individualized pro-environmental behaviours (e.g., recycling, using public transit, reducing energy consumption, avoiding single-use plastics) (Gifford & Gifford, 2016; Laszloffy & Twist, 2019). It is important to note that majority of the reviewed research focuses on eco-anxiety in adult populations (Gifford & Gifford, 2016; Laszloffy & Twist, 2019; Pihkala, 2018). Gifford and Gifford (2016) suggest that many people are unconsciously anxious and unaware of their deep concern for the

planet. In line with this statement, Pihkala (2018) points out that “people find ways to both know and not know at the same time... this in turn breeds more anxiety, which many try to deal with by more denial” (p. 549). Unprocessed eco-anxiety directly relates to climate change denial and may contribute to aforementioned dualistic ways of thinking (Pihkala, 2018). As such, not only does eco-anxiety prevent people from engaging in pro-environmental behaviors, it may also perpetuate exploitative and harmful interactions with the natural world (Pihkala, 2018). Clearly, there is a need for therapy services which assist clients in confronting, processing, and expressing their environment-related anxiety.

Grief

In recent literature, researchers are beginning to re-conceptualize grief in response to the climate crisis. First, Davenport (2017) defines *disenfranchised grief* as experiencing painful loss that is not adequately addressed or acknowledged by broader society. Second, Albrecht (2011) coined the term *solastalgia*, which includes the loss of a familiar place or landscape due to climate change. Another concept includes *planetary anguish*, that is, experiencing the pain of living beings and the natural earth in addition to personal pain (Pipher, 2012). Third, Goleman (2009) describes *eco-angst* as the uncomfortable awareness of how everyday human behaviors impact the environment. Fourth, Lertzman (2015) coined the term *environmental melancholia*, a concept based on early Freudian thought surrounding unresolved mourning. Lertzman (2015) further points out that grief can be anticipatory, as people begin to mourn inevitable loss and future change. In this paper, I have used *eco-grief* as an umbrella term which refers to these multiple forms of grieving. However, due to the recency of this topic, more research is needed which investigates the differences and similarities between these forms of grief. Notably, feelings of powerlessness, helplessness, and an unresolved sense of loss appear evident across all of the aforementioned concepts. As such, it is my strong belief that grief and mourning are crucial mental health implications of the climate crisis. It is important to note that grief is a normative psychological response to our current reality, and that mourning losses of the changing environment is part of the healing process (Davenport, 2017). Furthermore, mourning “gradually clears a path that frees up our emotional energy so that it can be used to pursue new possibilities and take positive action” (Davenport, 2017, p. 23). Despite widespread climate-related grief, these emotional challenges are not yet socially acknowledged in Western cultures. Yet, in avoiding processing these painful emotions, we increase suffering and neglect the

potential for personal transformation and broader social change (Davenport, 2017). As such, increasing awareness, initiating dialogue, and naming different forms of climate-related grief are important initial steps in processing the climate crisis.

Art Therapy

Art therapy is a discipline which emerged from the two fields of psychology and visual arts (Malchiodi, 2012; Malchiodi, 2007). It combines the creative process with psychotherapy to support emotional expression, self-understanding, and personal growth (Malchiodi, 2007). Art therapists may follow a specific approach, such as humanistic, psychodynamic, developmental, trauma-informed, as well as family therapy perspectives and other models (Malchiodi, 2012). Notably, most art therapists integrate multiple theoretical understandings and models into their clinical practice (Malchiodi, 2012). Visual arts materials such as paint, collage, textiles, sculpture, and more are used as a means of expression (Malchiodi, 2007). As such, art therapy offers an alternative route of communicating difficult feelings, thoughts, or experiences. Evidence-based research shows that art therapy can address a wide variety of mental health issues, such as trauma, addictions, depression, grief, and anxiety (American Art Therapy Association, 2015; Chambala, 2008; Curry & Kasser, 2005; Sandmire, Gorham, Rankin, & Grimm, 2012). Currently, there is no known research which proposes art therapy interventions for the psychological impacts of climate change. As such, this topic was broadened to include literature from *creative arts therapies* in general.

Only one study was found which examined creative arts therapies in direct relation to the psychological impacts of climate change. In a Canadian study by Seabrook (2020), the role of music therapists in the midst of the ecological crisis was explored. The author suggested drawing on ecocritical theory to develop a practice of *eco music therapy* (Seabrook, 2020). Eco music therapy integrates clinical practices of music therapy with political, environmental, and cultural understandings of the climate crisis (Seabrook, 2020). It may be used as “both a distinct approach and as a theoretical foundation that can be applied across and within existing music therapy models” (Seabrook, 2020, p. 6). For example, a psychodynamic music therapist may examine unconscious materials linked with a client’s eco-grief (Seabrook, 2020). By contrast, another theoretical orientation may focus on musically processing eco-grief (Seabrook, 2020). Music therapy and art therapy are allied modalities which utilize the creative process to facilitate emotional expression (Malchiodi, 2012; Seabrook, 2020). Despite the relevance of this article,

Seabrook's (2020) research is mostly theoretical and exploratory. Moreover, several questions remain for the field of art therapy, such as: How can art therapy be used to uncover and process eco-anxiety and/or forms of eco-grief? What would a similar model, such as *eco-art therapy*, look like in clinical practice? How would the physical presence of art materials facilitate the processing of emotions related to the climate crisis? How would the triangular relationship between the client, art therapist, and symbolic artwork impact these explorations? With these questions in mind, the value of art therapy for the psychological impacts of climate change will continue to be explored.

Reflections

Before highlighting personal biases in the current literature review, I will first acknowledge the context in which this paper was written. The World Health Organization has declared the recent COVID-19 outbreak as a global health emergency (World Health Organization, 2020). Despite the current project being formulated prior to this time, the COVID-19 outbreak inevitably influences how this research can be understood and applied. For instance, some researchers are beginning to consider connections between the global pandemic and the environment. Media sources have started pointing out unexpected consequences of the pandemic, such as a reduction in carbon emissions, air pollution, and changes in wildlife activity (Kurdi, 2020). Interestingly, some authors have argued that lessons from the government's response to COVID-19 should be learned from and applied to an even greater threat – the climate crisis (Baker, 2020). Other writers have pointed out the ethical concerns of using a global pandemic, which has led to immeasurable grief, suffering, and loss, to catalyze the environmental movement (Henriques, 2020). Importantly, although emissions will likely remain low for the duration of reduced industrial activities, many have expressed concern about what will happen when travel restrictions are lifted (Baker, 2020).

Due to the recency of this topic, there is a striking lack of scientific consensus regarding links between climate change and COVID-19. At this time, most available resources on coronavirus and the environment are not peer-reviewed sources and consist mostly of speculation and initial inquiries. Moreover, researchers and therapists have not yet been able to study the impacts of COVID-19 on mental health. As such, this research project cannot provide an in-depth review of the connections between COVID-19, mental health, and the climate crisis. This topic will, however, be revisited in the discussion section of this paper.

Personal Biases

It is important to address personal biases in the current literature review, as they have inevitably shaped the gathering and processing of information. First, my own passion for the natural environment is a significant part of my life. I spent much of my childhood on the farms of my relatives in rural Saskatchewan. Being raised in this social context illustrated the importance of a connection to nature and a reliance on the environment for one's livelihood. I have also directly experienced a lack of connection to the natural environment when moving to larger urban cities. This disconnect – paired with ongoing news and information about climate change – has elicited my own anxieties and cognitive dissonance about the environment. Based on personal experiences, I realize I am most likely to engage in pro-environmental behaviors and eco-activism when I am able to manage these emotions. One strategy I have used to cope with this anxiety is expressing my emotions through art. I often engage in painting, drawing, or writing to cope with my concerns and conflicting emotions about the changing climate. I have also found that, after creating or meditating outdoors, I feel deeply bonded with the environment and more motivated to engage in eco-activism. As such, these experiences have directly shaped my belief that art therapy is incredibly valuable for the current reality of climate change.

Second, it is important to note that this literature review was developed in the context of a Westernized culture. Furthermore, many of the concepts discussed were drawn from White perspectives. It would be valuable for future research to consider other ways of knowing the land and to examine the relationship between human beings and the environment in other cultures. For example, Japanese culture includes the traditional practice of forest bathing or “shinrin-yoku” (Antonelli, Barbieri, & Donelli, 2019, p. 1117). This type of natural meditation is widely practiced and may point toward an enriched understanding of the relationship between land and mental health (Antonelli, Barbieri, & Donelli, 2019). Another example includes Indigenous ways of knowing and cultivating human-nature relationships. Carvalho and Platt (2019) explain that in many Indigenous communities, relationships with the land are based on respect and reciprocity. Furthermore, the authors explain that, in this culture, “nature plays a pivotal role in fostering healing whenever there is sickness and suffering” (p. 90). It would be useful to continue investigating how multiple cultures understand the current climate crisis and corresponding impacts on mental health. Ultimately, remaining aware of my inherent biases throughout this research project will help me to collect and analyze data in a systematic way. Despite these

aforementioned biases, meaningful themes within the literature have been identified and have provided a foundation for the development of my research questions.

Research Questions

There is an urgent call for mental health professionals to prioritize the psychological impacts of climate change. As such, the purpose of this research is to investigate the role of art therapy in the current climate crisis. As demonstrated in the literature review, there is a striking lack of research on creative arts therapies, eco-anxiety, and forms of eco-grief. The current project aims to fill these gaps in the literature by exploring art therapy as a relevant mental health service. The primary research question for this project is: “How can art therapy address the mental health implications of the climate crisis?”. In addition, the secondary research question is: “How can art therapy encourage individuals to engage in pro-environmental behaviors?”. To investigate these inquiries, I adopted a theoretical methodology.

Methodology

This research project followed the specific steps outlined by Cooper (1984), in which literature is systematically collected, analyzed, and evaluated, in order to identify areas for future research. As such, data will take the form of past research conducted in relevant fields. This data will be used to summarize current knowledge and develop overarching conclusions (Russel, 2005). A theoretical methodology was chosen due to the striking lack of current research on art therapy services for mental health challenges related to climate change. A primary objective of applying a theoretical methodology is therefore to begin “identifying recommendations for future research” (Randolph, 2009, p. 2). This methodology will be guided by Cooper’s (1984) five steps to theoretical research, which include problem formation, data collection, data evaluation, data analysis, and interpretation.

First, Cooper (1984) explains that the problem of the research study must be clearly identified and articulated. This process includes providing definitions of relevant variables and concepts (Cooper, 1984; Russel, 2005). For example, the key concepts of art therapy, climate change, forms of eco-grief, and eco-anxiety were defined in the current research project (Cooper, 1984; Russel, 2005). It is imperative for the researcher to have a clear understanding of research concepts before they can begin to identify potential relationships between them (Cooper, 1984). This process included reading extensive literature on these key concepts, relying on multiple sources, and engaging in discussion with my research advisor, professors, and peers. Second,

literature on these research concepts will be systematically collected (Cooper 1984). For instance, academic and peer-reviewed sources were emphasized and collected from databases and multiple fields of study. Third, evaluation will involve outlining the strengths and limitations of the current state of knowledge on the research topic (Cooper, 1984). As there is limited current research, studies which more broadly explored creative arts therapies, climate change, and mental health were evaluated. Fourth, analysis includes re-organizing separate points of data “into a unified statement about the research problem” (Russel, 2005, p. 12). This process involves critically evaluating a body of knowledge and developing corresponding arguments, statements, and conclusions (Randolph, 2009). In the current project, a primary goal of this step was to outline recommendations for future research on art therapy for eco-anxiety and forms of eco-grief. Lastly, findings are disseminated in order to develop the base of knowledge (Cooper, 1984; Russel, 2005).

Although the current research does not have a quantitative design, it involved the systematic collection and evaluation of studies. The reliability of these studies was thus considered when using them to support claims and recommendations for art therapy services. Furthermore, validity can be defined as “the accuracy of our ideas and our research... [and] the degree to which these are true and capable of support” (Ray, 2012, p. 428). Validity therefore ensures that a research study is useful and scientifically sound (Ray, 2012). In the data collection stage of research, a possible threat to validity includes inadequate sampling (Russel, 2005). This issue may occur when a researcher neglects significant studies, articles, and/or theories in their collection of data (Russel, 2005). It is important to note that, “realistically, it is difficult for the reviewer to obtain all possible studies for review” (Russel, 2005, p. 11). The researcher must therefore identify which studies were not included and discuss any potential implications of this exclusion criteria (Russel, 2005).

Furthermore, validity may also be compromised by discrepancies between the reviewed literature and the target population of the study (Russel, 2005). The generalizability of theoretical research may be improved by carefully considering the demographic information of participants in reviewed studies (e.g., ages, genders, ethnicities, socioeconomic statuses, geographical locations) (Russel, 2005). Any notable patterns in the demographics of the reviewed literature should be clearly articulated in the research report (Russel, 2005). In this sense, transparency regarding the research process and potential limitations will promote a more accurate

understanding of research findings (Russel, 2005). Another potential threat to validity is the tendency to positively evaluate findings that align with personal lived experiences and beliefs (Russel, 2005). To increase objectivity, the researcher should reflect on personal biases and consider how these biases inevitably shape the research process (Russel, 2005). In the current paper, these statements about reliability and validity helped to guide the development of the research project.

Ethical Considerations

Although no participants were used in this project, there are still significant ethical guidelines to follow. According to Kapitan (2017), researchers should demonstrate “theoretical sensitivity” through attuning to the complexity of current literature and understanding theories as thoroughly as possible (p. 133). To further minimize ethical risk, credibility, dependability, and cultural humility must also be considered. First, credibility involves producing findings which are as relevant as possible to the specific research topic (Kapitan, 2017). Credibility must be considered when making new connections between different fields of study (Kapitan, 2017). This concept is especially important when investigating recently emerging topics and identifying new patterns in research (Kapitan, 2017). Second, dependability implies a systematic, operationalized, and descriptive research process (Kapitan, 2017). Third, cultural humility involves a willingness to recognize how personal social locators and corresponding assumptions impact the research process (Kapitan, 2017). For instance, Talwar (2015) argues that creative arts therapists must examine identity, difference, power, privilege, oppression, and systematic inequality. Notably, cultural humility also involves the researcher examining conscious and unconscious biases (Talwar, 2015). Hesse-Biber and Leavy (2011) emphasize the importance of faculty supervision when making ethical decisions in the research process.

Discussion

In this section of the paper, I will begin by critically examining the relationship between human beings and the environment, with an emphasis on Western culture. Next, I will point out how researchers and clinicians have conceptualized the integration of art therapy with nature-based therapies. I will then highlight how eco-art therapy can be used as a therapeutic modality to meet current mental health needs. The relationship between personal well-being and motivation to engage in pro-environmental behaviors will also be reviewed. Following this, I will briefly describe current literature on eco-activism and sustainable practices in art therapy.

Next, I will consider broader systemic perspectives and the role of hope in the midst of the climate crisis. Implications and limitations of this project will also be discussed. Lastly, I will summarize key findings and highlight recommendations for future research.

The Need For Reconnection

Human health and well-being are deeply interconnected with the health of the natural environment (Laszloffy & Twist, 2019). Davenport (2017) elaborates that “healing the self and healing nature become inseparable” (p. 43). Although acknowledging the climate crisis can be incredibly distressing, defense mechanisms such as denial, avoidance, and repression of our current reality may be more harmful in the long-term (Cabaniss, Cherry, Douglas, & Schwartz, 2011; Higley & Milton, 2008). Many researchers posit that reconnecting with nature improves mental health and cultivates more ethical relationships with the environment (Higley & Milton, 2008; Laidlaw & Beer, 2018; Marietta, 2003; Sobel, 2008). Moreover, a therapeutic setting may allow clients to express individual emotions while examining their role within broader society (Higley & Milton, 2008). This type of mental health support in particular may combat the human-nature dualism prevalent in much of Western society (Flowers, Lipsett, & Barrett, 2014; Laszloffy & Twist, 2019). As such, a therapeutic modality which facilitates emotional expression and deepens human-nature connection is needed.

Nature-based approaches for well-being have been used for hundreds of years, especially in Indigenous traditions (Kopytin & Rugh, 2016). In the last couple of decades, Western researchers and clinicians have advocated for the efficacy of nature-based therapies (Kopytin & Rugh, 2016). Therapeutic suggestions to engage with the environment are especially effective in cases where a “nature deficit” is directly related to a client’s presenting concerns (Laszloffy & Twist, 2019, p. 22). Examples of nature-based interventions include simply playing outdoors, exercising, or spending time exploring natural environments (Kopytin & Rugh, 2016). Importantly, some clients may require a gradual exposure to natural settings to lessen environmental anxieties, mistrust, or fear (Laszloffy & Twist, 2019). Even without complaints of nature-deficit, nature-based therapeutic interventions can be used in a variety of populations to address concerns such as depression, anxiety, and grief (Kopytin & Rugh, 2016). Specific approaches such as wilderness and adventure therapy have also been shown to offer mental health benefits (Laszloffy & Twist, 2019). These therapies encourage direct contact with the environment and facilitate clients in identifying insecurities, anxieties, fears, and maladaptive

coping mechanisms (Laszloffy & Twist, 2019). In wilderness therapy, endurance and adaptability are practiced and eventually translated to address emotional and/or behavioral concerns (Laszloffy & Twist, 2019). Similarly, adventure therapy involves challenging physical activities that take place outdoors and offer new ways of thinking and problem-solving (Laszloffy & Twist, 2019). Despite these benefits, some ambiguity remains surrounding how nature-based therapies address unconscious material and painful emotions. Furthermore, there is little known literature which grounds nature-based therapies in the context of the climate crisis. In the following section, I will discuss how supplementing nature-based therapies with art therapy may fill these gaps in mental health services.

Eco-Art Therapy

Researchers and clinicians have advocated for *eco-art therapy* as a valuable therapeutic approach (Kopytin & Rugh, 2016; Speert, 2016; Sweeney, 2013). According to Speert (2016), eco-art therapy builds on the use of art as ritual and as a means of connecting with others. This therapeutic approach may take place outdoors or involve the creation of symbolic artworks using natural materials (Flowers, Lipsett, & Barrett, 2014). Eco-art therapy may also include authentic movement, drawing in nature, photography, creative writing, and/or performance art (Kopytin & Rugh, 2016). Sensory materials found in the natural environment (e.g., leaves, pinecones, flowers, seeds, soil, seashells, rocks) offer tactile experiences which may lessen stress and reduce anxiety (Hinz, 2009). These rich and varied materials may additionally offer awareness of seasonal cycles, as well as regional animals and plants (Speert, 2016). Ideally, eco-art therapy provides a grounding experience, utilizes all five senses, explores emotions, and enriches one's connection with nature (Speert, 2016). Clinebell (1996) elaborates that a broader goal of this connection is to foster one's capacity to care for the earth and respect one's natural home. Speert (2016) notes that eco-art therapy "expands our awareness and creative response... to larger ecological systems as the source of both suffering and healing" (p. 1). Although Speert (2016) does not directly link eco-art therapy with the climate crisis, this modality strikes me as an essential therapeutic service for our current reality. As Speert (2016) states, acknowledging our ecological context offers an opportunity to process painful material while better serving our community. In line with this statement, some art therapists have pointed out that art therapy can be a form of protest (Whitaker, 2017). Furthermore, "recognition of humanity's interconnectivity

with all life is... a key factor in building motivation toward becoming agents of change” (Palamos, 2016, p. 88).

Dr. Micheal Cohen, an ecopsychologist, teaches sensory connection with nature through a four-step Natural System’s Thinking Process (NSTP) program (Sweeney, 2013). In her book, Sweeney (2013) builds upon the NSTP model by suggesting a fifth step, that is, a creative arts component. In this context, eco-art therapy involves the use of visual expression to represent and process sensory experiences in nature (Sweeney, 2013). Similarly, Flowers, Lipsett, and Barrett, (2014) describe a contemplative art practice called Creative Nature Connection (CNC). This practice emphasizes an embodied and intuitive connection with nature (Flowers, Lipsett, & Barrett, 2014). CNC students begin by setting an intention to engage with nature and participating in sensorial art making (Lipsett, 2013). This practice also involves letting images and nature speak, expressing gratitude toward the natural world, and recording personal reflections (Lipsett, 2013). In another creative practice, Lipsett (2001) suggests spontaneous painting as a method to “create the deepest and most lasting benefits for the self and the earth” (p. 30). This spontaneous painting exercise was based on early work by Florence Cane, an art therapy pioneer who integrated bodily experience with creative expression (Lipsett, 2001; Rubin, 2016). Cane’s sister, Margaret Naumburg, was also an early leader of art therapy and emphasized a psychodynamic approach (Rubin, 2016). Despite some difference in their approaches, both Cane and Naumburg believed in releasing unconscious imagery through spontaneous artmaking (Rubin, 2016). Lipsett (2001) argues that spontaneous painting allows for individuals to construct a narrative about the self and the natural world. Furthermore, “experiences of this kind are crucial for the sustainable bonding of the human with the earth” (Lipsett, 2001, p. 32). Notably, there are several similarities between NSTP, CNC, and the spontaneous painting practice (Flowers, Lipsett, & Barrett, 2014; Lipsett, 2013; Lipsett, 2001; Speert, 2016). The themes of sensory experiences, exploring conscious and unconscious material, and deepening one’s connection to nature occur across these models and proposed programs of eco-art therapy. Ultimately, many researchers are beginning to propose ecologically grounded art therapy practices (Flowers, Lipsett, & Barrett, 2014; Lipsett, 2013; Speert, 2016).

It is important to note that turning toward nature and processing the climate crisis can be shocking, triggering, and emotionally overwhelming. Moreover, acknowledging one’s contributions to climate change can induce powerful feelings of guilt and shame (Davenport,

2017). Sustainable environmental change requires people to critically analyze their behaviors and question their interactions with the natural world. However, overwhelming experiences of shame, fear, anxiety, and guilt can elicit an unproductive “psychic numbing” (Davenport, 2017, p. 43). To address this risk, researchers and clinicians have highlighted the importance of community (Frye, 2019). Community-building programs have been shown to foster relationships and enhance emotional resiliency (Davenport, 2017; Frye, 2019). A strong sense of community may specifically reduce feelings of helplessness, anxiety, and/or fear linked with the climate crisis (Frye, 2019). Clayton et al. (2017) argue that “much can be done to increase the resilience capacity of individuals and communities, particularly in response to climate change” (p. 40). In line with this, Clayton et al. (2017) report that cultivating strong connections with others has been shown to increase one’s capacity to cope with anxiety. Eco-art therapy programs also have the unique potential to connect clients with community members or provide services to a local community in some way. Some examples of this practice may include participating in community gardens, developing public murals, or creating clothing or quilts to be donated to local organizations. Based on this research, eco-art therapy interventions which emphasize community building – or take place in group settings and emphasize personal connection – may be beneficial (Frye, 2019; Speert, 2016). Ultimately, mental health support is required which focuses on reconnecting with nature, processing conscious and/or unconscious material, and cultivating community. Eco-art therapy uniquely offers these benefits and is a valuable service to meet current mental health needs. An additional implication of improved wellness includes increases in pro-environmental behaviors, such as eco-activism.

Eco-Activism

Environmental activism has generated interest across many fields, such as creative arts therapies, fine arts, psychology, sociology, education, political science, and environmental studies (Dono, Webb, & Richardson, 2010). Activism can be defined as engagement in intentional and organized social efforts to create change (Hart, 2013). Notably, literature has demonstrated that activists may be at an especially high risk for developing mental health challenges related to trauma, isolation, and burnout (Hart, 2013). These risks are even more common in individuals with multiple minority identities who face additional systemic oppressions and barriers (Hart, 2013; Talwar, 2015). Environmental activism in particular has been “conceptualized as a collection of specific pro-environmental behaviors, such as belonging

to environmental groups, engaging in political actions, acting in environmental organizations, and making individual pro-environment decisions” (Dono, Webb, & Richardson, 2010, p. 178). Empirical research has shown that mental health and perceived connectedness to nature are predictors of one’s likeliness to engage in environmental activism (Barbaro & Pickett, 2016). Mayer and Frantz (2004) explain that in connecting deeply to the natural world, the notion of the self becomes embedded in nature. Some studies have also highlighted links between mindfulness and engagement in activism and pro-environmental behaviors (Barbaro & Pickett, 2016). In the midst of the climate crisis, “an increased sense of interconnectedness, such as with both nature and the future, could... facilitate the selection of workable pathways toward environmental sustainability” (Barbaro & Pickett, 2016, p. 97).

Sustainable Art Therapy Practices

In considering art therapy and eco-art therapy services, it is essential to examine sustainable practices within the field. Fortunately, art therapists are making substantial progress in integrating sustainability into therapeutic practice. Kopytin and Rugh (2016) describe a *green studio* model, which implies a therapeutic setting based in nature. In this model, the studio space is chosen and controlled by the surrounding community. In settings where this is not feasible, many art therapists are finding eco-friendly ways to adjust their office or studio spaces (Laszloffy & Twist, 2010). For instance, the use of thrifted, recycled, and re-used art materials is an accessible and widespread strategy (Brooker, 2010; Davis, 1999; Whitaker, 2017). Some art therapists have also incorporated artmaking in natural settings into their practice (Whitaker, 2017). In an article by Brooker (2010), the use of found objects (i.e., natural or re-used manmade objects) in art therapy practices was explored. Not only did this practice minimize use of single-use art materials, Brooker (2010) reported that the found objects also uniquely facilitated emotional expression in clients. In another article, Timm-Bottos (2011) presented a community action project, consisting of an art studio within a local thrift store. This initiative aimed to reduce clothing waste and bring awareness to the environmental impacts of the fashion industry (Timm-Bottos, 2011). Moreover, Higley and Milton (2008) suggested that therapeutic assessments should be expanded to honour the current realities of the climate crisis. Art therapists may consider assessing clients’ relationships with the natural world and the degree to which they have been impacted by climate change (Higley & Milton, 2008). Incorporating this concept into the assessment phase of treatment may allow therapists to have a deeper

understanding of clients' presenting concerns (Higley & Milton, 2008). Despite these initiatives in the field of art therapy, more work can be done to develop environmentally friendly practices as well as address the impact of the climate crisis on clients' mental health.

Systemic Perspectives on Climate Change

Up until this point, this paper has discussed the climate crisis in relation to mental health and individualized pro-environmental behaviors. Despite the importance of individual actions, it is important to acknowledge the broader systemic forces at play. For instance, Ojala (2012) argues that climate change must be solved at a collective level. In past literature, environmentalists have described climate change as a great equalizer (Klein, 2014). By contrast, researchers are now arguing that the ecological crisis has amplified the role of racist policies and dominant oppressive systems in climate-related inequality (Arezki, Bolton, Aynaoui, & Obstfeld, 2018; Klein, 2014).

The climate crisis is inarguably a social justice issue (Gifford & Gifford, 2016). This is evidenced by how Black people, Indigenous people, and people of color are more vulnerable to the impacts of climate change and have less access to economic resources and healthcare services (Davenport, 2017; Gifford & Gifford, 2016, Klein, 2014). As such, the climate crisis is deeply entangled with capitalism and broader systemic forces. Moving towards change thus extends beyond individualized pro-environmental behaviors and relies on some form of systemic transformation (Scavenius & Rayner, 2018). For instance, the United Nations (2019) calls for more concrete plans from countries and businesses in responding to the climate crisis. This call is in line with the urgent need for governments and policy makers to adopt a more proactive role (Arezki et al., 2018). Ultimately, along with our individual behaviors, we require "a willingness to look at and move towards new ways of living by radically transforming how we engage with the world, our communities, and each other" (Seabrook, 2020, p. 2). This kind of transformation requires socially dominant groups to critically analyze how they have participated in both environmental and social injustice (Klein, 2014). The power of political and economic institutions can inevitably elicit feelings of anger, fear, anxiety, and/or helplessness (Davenport, 2017). Despite current systemic barriers, some researchers, environmentalists, and clinicians continue to advocate for the efficacy of hope in the face of the climate crisis (Park, Williams, & Zurba, 2020).

The Role of Hope

The significance of hope in the climate crisis is widely debated in the fields of psychology and environmental studies (Park, Williams, & Zurba, 2020). The most commonly found definition of hope is a positive emotional state, in which individuals experience agency and motivation to work toward given goals (Ojala, 2012; O’Neill & Nicholson-Cole, 2009; Park, Williams, & Zurba, 2020). In an empirical study by Ojala (2012), the role of hope concerning global environmental concerns was investigated. The researcher found that rather than being a sign of illusory optimism, hopefulness was related to increased action and pro-environmental behavior (Ojala, 2012). In another study, the public’s engagement with the environment was shown to be directly impacted by how messages about climate change were framed (Park, Williams, & Zurba, 2020). In general, hope is found to be more effective in increasing pro-environmental behaviors than fear or extreme pessimism (Davenport, 2017; Ojala, 2012; O’Neill & Nicholson-Cole, 2009). Although fear can elicit a sense of urgency and importance on an issue, research suggests it may be counterproductive in addressing climate change (Davenport, 2017; O’Neill & Nicholson-Cole, 2009). Pihkala (2018) states that hope is an essential factor for survival and emotional resiliency. In line with this sentiment, it is important to note that the fight against climate change is indeed gaining momentum (Areski et al., 2018). Empirical studies have shown that a growing number of the population aspires toward sustainable lifestyles – especially among young adults and youth (Areski et al., 2018). As such, it may be most beneficial to adopt a realistic understanding of the ecological crisis while acknowledging that social change is underway. As Pihkala (2018) notes, “it is possible to show understanding for the great losses that have already occurred and will inevitably still occur, although humanity can yet have an effect on how much damage climate change will bring in the future” (p. 554).

Global Conclusion

In this section of the paper, I will synthesize the discussion and revisit the primary and secondary research questions. Firstly, a concerning disconnect between human beings and the environment has been discussed in detail (Davenport, 2017; Higley & Milton, 2008; Laszloffy & Twist, 2019). Not only is this disconnect linked to widespread mental health challenges, it may also play a role in climate change denial and hinder movement toward social change (Flowers, Lipsett, & Barrett, 2014; Laszloffy & Twist, 2019). Nature-based therapies (e.g., eco-therapy, wilderness therapy, adventure therapy) have been well documented in reducing depression,

anxiety, and grief (Kopytin & Rugh, 2016; Laszloffy & Twist, 2019). However, more information is needed which grounds nature-based therapies in the context of the climate crisis. The primary research question for this project was: *“How can art therapy address the mental health implications of the climate crisis?”*. In response to this inquiry, I argue that the integration of art therapy and nature-based therapies – that is, eco-art therapy – can address climate-related mental health challenges. Eco-art therapy uniquely facilitates creative expression, emotional exploration, and reconnection with the natural environment (Kopytin & Rugh, 2016; Lipsett, 2001; Speert, 2016; Sweeney, 2013). Furthermore, eco-art therapy interventions which emphasize social relationships and community collaboration may be most effective in cultivating emotional resiliency (Davenport, 2017; Frye, 2019). The secondary research question of this project was: *“How can art therapy encourage individuals to engage in pro-environmental behaviors?”*. Mental health challenges related to the climate crisis, such as eco-anxiety and eco-grief, play a significant role in one’s capacity to advocate for the environment (Albrecht, 2011; Davenport, 2017; Lertzman, 2015). Personal well-being has been directly linked to likeliness to engage in pro-environmental behaviors (Davenport, 2017; Dono, Webb, & Richardson, 2010). This engagement includes individualized behaviors (e.g., reducing energy consumption, avoiding single-use plastics) as well as political action and involvement with environmental organizations (Barbaro & Pickett, 2016; Dono, Webb, & Richardson, 2010). It is my strong belief that, not only could eco-art therapy services address the mental health challenges associated with the climate crisis, it also holds the potential to facilitate sustainable change.

Implications and Limitations

There are several valuable implications of the current research project. This project contributes to existing research by addressing a central gap in the literature. For instance, no known research has been conducted on art therapy interventions for the psychological impacts of the climate crisis. This gap in the literature is striking, considering the urgent need for creative arts therapists to respond to clients’ mental health needs. Furthermore, the current project has synthesized literature and provided a comprehensive view of multiple emerging forms of eco-anxiety and eco-grief. In addition, this project integrates knowledge of art therapy with an understanding of eco-therapy interventions. This research may therefore be of interest to creative art therapists wishing to develop therapeutic programs, and/or interventions which address the

psychological impacts of the climate crisis. Lastly, further support for the integration of art therapy and nature-based therapies has been demonstrated.

Despite these contributions, it is important to discuss the limitations of this research project. First, the theoretical methodology chosen for this project allows for the collection, synthesis, and analysis of relevant literature. A limitation inherent in this methodology is the inability to outline specific art therapy interventions or recommend programs. With additional research on this topic, researchers and clinicians can begin to build on this foundation of knowledge and develop art therapy programs to meet mental health needs.

Second, although this project included discussions of climate justice, it did not embark on an in-depth examination of the social inequalities amplified by climate change. As previously discussed, research shows that individuals with minority identities (e.g., in terms of race, gender, sexuality, and/or disability) are disproportionately impacted by the changing environment (Gifford & Gifford, 2016; Klein, 2014). As creative arts therapists, we must initiate and maintain discourse on climate justice. It is imperative to consider how clients are unfairly impacted by systemic racism and oppression. Moreover, therapists in particular have the responsibility to critically examine conscious and unconscious biases, privilege, white fragility, and ways in which we have contributed to or benefitted from an unequal system (Talwar, 2015). Creative arts therapists must also consider which individuals and communities do not have adequate access to mental health services. More therapeutic programs and interventions are needed for people with minority identities who have been disproportionately harmed by climate change.

Third, due to the lack of existing knowledge on this topic, this paper was not written with a specific population in mind. Interestingly, some research suggests that children, adolescents, and young adults may experience and respond to the climate crisis much differently than adults (Ojala, 2012; Sobel, 2008). Based on my experiences as an art therapy intern in a school setting, I was struck by how knowledgeable and passionate young clients were about climate change. Many of these clients expressed frustration and deep concern about a lack of government initiative. It would be beneficial for future research to investigate how youth process and cope with emotions elicited by the current climate crisis. Furthermore, it would be helpful to investigate the unique mental health needs of children and adolescents growing up during the climate crisis.

Recommendations for Future Research

This section will include suggestions for future research on the topic of the climate crisis, mental health, and eco-art therapy. First, the current project emphasized newly emerging mental health challenges, such as eco-anxiety and eco-grief. However, there is extensive literature which highlights how the climate crisis impacts existing mental health conditions. Wiley (2019) explains that climate change may exacerbate pre-existing PTSD, depression, addictions, stress, aggression, and suicidal ideation. Furthermore, this research project did not cover experiences of acute trauma, such as witnessing or experiencing natural disasters (Davenport, 2017). Specific therapeutic interventions must be developed for experiences of climate-related trauma, survivor's guilt, and/or recovery fatigue (Davenport, 2017). Although these services may have similarities to eco-art therapy interventions, it is possible that a greater emphasis on a trauma-informed approach is needed.

Second, this project was written primarily from a Westernized perspective. Importantly, many cultures hold unique perspectives on the relationship between human beings and the environment. Some cultures, such as many Indigenous communities, place a strong emphasis on one's connection with nature and respect for the environment (Antonelli, Barbieri, & Donelli, 2019). Future research is needed which extends beyond a Westernized viewpoint and centers perspectives across multiple cultures. Notably, this research may investigate mental health challenges in individuals experiencing direct changes to familiar landscapes and lifestyles as a result of climate change. Specifically, more information is needed to diversify and enrich understandings of the interconnectedness of mental health and the natural environment.

Third, based on current literature, there is a clear connection between awareness of the urgency of climate change, a perceived connection with nature, and motivation to engage in pro-environmental behaviors (Davenport, 2017; Dono, Webb, & Richardson, 2009). It could be useful for future researchers to examine the implementation of these concepts into the education system. In considering the role of art therapists in the school setting, it may be beneficial to examine the art therapist's unique ability to provide psychoeducation, facilitate a connection to nature, and help young clients express emotions related to climate change.

Fourth, the need for art therapists to integrate sustainability into their clinical practices was discussed. Suggestions included implementing green studio models, utilizing natural or re-used art materials, and practicing art therapy as a form of protest (Brooker, 2010; Davis, 1999;

Kopytin & Rugh, 2016; Laszloffy & Twist, 2019; Timm-Bottos, 2011; Whitaker, 2017). However, more research is needed which provides a comprehensive overview of sustainable art therapy practices. An exhaustive review of this literature would be particularly useful for art therapists wishing to increase pro-environmental behavior within their own professional setting. Specific consideration of different art therapy settings (e.g., spaces within communities, clinics, institutions, or mobile settings) would also be helpful for increasing sustainability within the field.

Fifth, the current research briefly touched on therapeutic assessments of climate change-related mental health difficulties. It was suggested that therapists consider expanding assessments to include current realities of the ecological crisis (Higley & Milton, 2008). More information is needed on how art therapists can effectively integrate this topic into clinical assessments. Practical suggestions, such as possible questions to include, would be particularly useful for art therapists interested in expanding their assessment strategies. Considerations of how age, background, geographical location, and other social locators impact the assessment process would also be beneficial.

Sixth, future studies should investigate the relationship between mental health and sustained environmental activism. Eco-activists play a significant role in the fight against climate change. However, they may face additional challenges with mental health, such as trauma, isolation, and burn-out (Hart, 2013). Future research which provides a more in-depth exploration of the mental health needs of environmental activists is therefore required. Research on the development of eco-art therapy programs, which specifically emphasizes environmental activism, would be especially beneficial.

Seventh, in the literature review of this paper, the relevance of COVID-19 was briefly and informally addressed. The striking lack of information and consensus on the environmental implications of the global pandemic was highlighted. Furthermore, it was pointed out that researchers and therapists have not yet studied the impacts of COVID-19 on mental health. As efforts continue to understand the global pandemic and its connection to the environment, urgent areas for research will emerge. Creative arts therapists will inevitably be personally impacted – or treat clients who are impacted – by the coronavirus. As such, future research is needed to better understand which challenges lie ahead and how creative arts therapists can best respond.

Lastly, this research project was the first to embark on an in-depth investigation of art therapy services for the mental health implications of the climate crisis. There is a clear need for the development of specific therapeutic programs and interventions. In this paper, the integration of art therapy with nature-based therapies (i.e., eco-art therapy) was suggested as a modality which uniquely addresses current mental health needs. Interventions which included intentional contact with nature, processing conscious and unconscious material, spontaneous creative expression, and personal reflection were examined (Flowers, Lipsett, & Barrett, 2014; Lipsett, 2001; Speert, 2016). In addition, literature supported the importance of eco-art therapy services which emphasize community building, and/or which take place in group settings (Frye, 2019; Speert, 2016). More research is needed which builds off of these initial considerations and moves toward the development of specific eco-art therapy interventions.

Conclusion

Despite the widely known physical threats of climate change, we have yet to fully understand the mental health implications. Novel mental health disorders, such as eco-anxiety and forms of eco-grief, are emerging as significant and widespread challenges. This research project used a theoretical methodology to explore art therapy services for the psychological impacts of climate change. Data analysis included a systematic literature review, a critique of this literature, an analysis of existing gaps, and recommendations for future research. Eco-art therapy was highlighted as a valuable therapeutic service in the midst of the climate crisis. Integrating art therapy with nature-based therapies offers the unique potential to facilitate emotional exploration, creative expression, and connection to the natural world. Furthermore, by improving mental health and well-being, eco-art therapy may also increase engagement in pro-environmental behaviors. More research is urgently required on specific therapeutic programs which can effectively address the mental health implications of climate change. Ultimately, increasing well-being and cultivating emotional resiliency are essential in moving toward positive sustainable change.

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