Check for updates

Commentary/Essay/Personal Account

Indigenous Nurses' Worldviews and the Contested Space of Climate Discourse

Creative Nursing
1–9
© The Author(s) 2025

Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/10784535251362505
journals.sagepub.com/home/cng


Odette M. Best[1], Melissa Vera[2], and Melessa Kelley[3]

Abstract

In this paper, we present three Indigenous worldviews, anchored to the epistemology and ontology of each author in discussing climate impact on Indigenous people. Each worldview speaks to our unique and individual Indigenous ways of knowing, being, and doing. We then extended the Indigenous worldviews by discussing the climate crisis and its impact on Indigenous peoples, the voices of Indigenous nurses in the climate space, and further outline how we believe that climate change impact is a colonizing force which is structurally racist. We then provide some potential ways forward. We argue that being a climate activist involves being an advocate for Indigenous justice and a disruptor of Western paradigms of economy, ownership, and capitalism.

Keywords

Indigenous worldviews, Indigenous nurses, climate change impact, structural racism, climate justice

Implications for Knowledge Translation

- **Centering Indigenous Epistemologies**: This manuscript privileges three distinct Indigenous worldviews, showing how traditional relationships with land, cultural practices, and sacred teachings offer essential guidance for addressing climate change through relationality, reciprocity, and interdependence.
- **Critique of Structural Racism in Climate Discourse**: We argue that climate change derives from colonizing and structurally racist systems that disproportionately impact Indigenous communities—communities that have contributed the least to the climate crisis. This manuscript challenges dominant Western paradigms of climate activism that ignore or appropriate Indigenous knowledge without accountability or justice.
- **Indigenous Nurses as Climate Disruptors**: This manuscript elevates the unique role of Indigenous nurses as leaders, advocates, and disruptors in climate justice. These nurses bring both clinical expertise and culturally grounded knowledge to the intersections of environmental health, social-emotional wellbeing, and community care.
- **Call for Transformative Nursing Education and Climate Policy**: We call on nursing education and global health policy to integrate Indigenous voices, climate literacy, and land-based healing frameworks. This includes rejecting extractive relationships to Indigenous knowledge and instead supporting Indigenous-led climate solutions grounded in sovereignty and relational accountability.

Relational Foregrounding

Dr. Odette Best is a Goreng Goreng and a Boonthamurra woman through bloodline and a Koomumberri, Yugambeh woman through adoption. Dr. Best has been a registered nurse for 35 years. Dr. Melissa Vera is Tsm'syen and Yaqui First Nations and has been a registered nurse for nine years. Dr. Melessa Kelley is Keetoowah Cherokee and has been a registered nurse for more than 25 years.

[1]Office of Indigenous Engagement, University of Queensland, Queensland, Australia
[2]College of Nursing & Elson S. Floyd College of Medicine, Washington State University, Seattle, WA, USA
[3]School of Nursing, The University of Texas, Austin, TX, USA

Corresponding Author:
Odette M. Best, Office of Indigenous Engagement, University of Queensland, Queensland, Australia.
Email: odette.best@usq.edu.au

The Nations of all three authors were invaded and colonized, and our people experience lives that continue to be impacted by colonization. We do not offer a single Indigenous worldview; instead, we offer three Indigenous worldviews as sovereign Indigenous women who hold Western qualifications as registered nurses. However, our collective experience is based on our relationality with our lands, which provide our creation and origin stories, songlines, food, water, shelter, and medicines and is where we continue to live, work, and play. Our lands are our teachers, our educators, and our classrooms. Collectively, our people traditionally lived in harmony with the environment and did not engage in extraction-based economies.

We pay our deepest respects to the unceded lands on which we work and live. We acknowledge our Elders both past and present, and value the influence of our Elders on what we do as First Nations nurses working with our communities on our lands. We have a duty to uphold the right to health and a duty to support the health of our Indigenous communities. As First Nations nurses, we are in a unique position to know and respect traditional teachings and cultural values. We live at the intersection of health, water, and climate change, which impacts the health of Indigenous peoples globally.

Throughout the world, Indigenous people and communities are disproportionately impacted by climate change due to their close connection to the land and their ongoing social, economic, and political marginalization. Numerous Indigenous people live in remote and rural areas such as the coastal regions, forest, desert, and mountainous areas; these areas are the most severely impacted by rising sea levels, droughts, floods, wildfires, and biodiversity loss (Treisman, 2021; World Economic Forum, 2024).

In this paper, we privilege the voices of Indigenous nurses who are also climate justice activists and disruptors. While we do not ignore non-Indigenous literature and ideas, we seek to bring First Nations nurses voices and perspectives to the fore, a position often not held by Indigenous nurses within climate discourse. We are passionate about the interface between climate change and impact, First Nations nursing, and First Nations community social and emotional wellbeing, and adopt an Indigenous lens for considering environmental justice.

Indigenist Methodology

This discussion paper uses an Indigenist methodology in utilizing three distinct personal Indigenous worldviews to examine each author's personal and systemic work in the climate space, within the context of Indigenous nursing. We utilize an Indigenist methodology in reflecting our commitment to cultural integrity that is informed by our individual Indigenist relationality and commitment to decolonizing current climate discourses. Historically and globally, Indigenous peoples were, and arguably largely remain, within the Western research paradigm: the objects of research but not the researchers. The 1990s saw the emergence of Indigenous academics speaking back to the dominant Western paradigms of research for their lack of encapsulating the Indigenous lived experiences, including as those who have suffered the consequences of colonization and the impacts of ongoing racism (Rigney, 1999), with Smith (1999) arguing the need to decolonize the research process when working:

> It achieves this purpose by drawing on indigenous philosophical understandings of the world and places itself against what is seen as an imposed (Western) view that does not acknowledge indigenous ontology and epistemology. It is an inherently political activity that critiques the assumptions of colonial constructions and understandings of indigenous society and culture. (Smith, p. 3)

Rigney (1999) defines three principles of culturally safe and respectful Indigenist research: "resistance as the emancipatory imperative in Indigenist research; political integrity in Indigenous research; and privileging Indigenous voices in Indigenist research" (p. 116). The authors of this paper suggest that whilst Indigenist research is utilized as the framing of Rigney's theorizing, its usage can be expanded to include the production of scholarship such as this paper where the expressions of it are anchored to the author's epistemologies, ontologies, and axiologies.

Three Indigenous Worldviews of Climate Change

Alaska and the Pacific Northwest: Dr. Melissa Vera

Human reciprocity and relationship with land have sustained us since humankind began. This worldview explores what it means to be human on Mother Earth through the metaphor of cedar. I start with an origin story passed down for millennia among several Pacific Coast tribes.

The mighty cedar is said to originate from the death of a kind man who gave his belongings and food to others. The Creator recognized his goodness and declared that cedar would grow where the kind man was buried to help the people of the land. The Indigenous relationship to land and planetary health can be explained by a metaphor of cedar: (1) Like cedar's biology, the relationship of Indigenous peoples to land is ancient and takes on many forms and aspects; (2) Our relationship to land is a daily invitation for nourishment on all levels of health (physical, mental, emotional, and spiritual); (3) Our interrelationship consists of every facet of life and culture; and (4) Our relationship to land is a symbol of strength and revitalization.

The Ethnobotany of Cedar. Cedars can live for up to 1,000 years, depending on the species. These ancient beings experience many changes to their environments over the centuries. They have evolved to be lightweight and rot-resistant,

making them ideal for clothing, weaving, architecture, and transportation. Some species of cedar are naturally fire-resistant and can withstand heat but will erupt into flames in intense wildfires.

Human relationship to land is ancient, like cedar, and has seen many phases. Hence, we are still here inhabiting this land alongside our other more-than-human kin. Cedar teaches us to be lightweight and resilient in our interactions with land. Our individual carbon footprints should mirror that of all other creatures and previous histories of humans who tread lightly upon Mother Earth. This doesn't mean that humans should not leave any marks upon the land: quite the contrary. Humans are part of the land and are integral to its flourishing. We have always lived—and should continue to live—in relationship with land, where reciprocity is a priority. We take care of land and land takes care of us, because we are land, and land is us.

Women and the Harvesting of Cedar. Every part of cedar is used when harvested—and is used daily. The roots, bark, trunk, branches, withe, and leaves are all used. Each cedar given by the Creator is harvested in a way to ensure the continued survival of further generations of cedar. This is done as a whole-community intergenerational event. Sometimes it is intertribal. Community members gather and ask to take cedar for human use. When only the bark is harvested (traditionally done by women because they had more detailed skill), the tree survives, and only scars are left behind from their carefully skilled harvest. Some old-growth forests in Canada protected under the Heritage Conservation Act of 1996, show these signs of ancient humanity.

The scars of human relationship to land can be seen everywhere on Mother Earth. Some scars, like those left behind on cedar from millennia ago, are indicative of a mutual relationship where nourishment is a two-way street. Women traditionally used the softly shredded, harvested bark as sanitary napkins, catching their monthly bleeds, and then giving the blood back to land as a gift in ceremony. They used the bark as a place to birth, making a soft space for the newborn to land. They gave the birthing bark back to Mother Earth as well, soaked in blood, placenta, and amniotic fluids. They gave birth blood and placenta to cedar as a symbol of gratitude and to ensure their newborn would live a long life, just like cedar. Women are a critical link in this line, often seen as the regenerative lifeforce with the ability to interact uniquely with land, offering leadership and care for the benefit of all beings.

Uses of Cedar. A profound cultural interrelationship with cedar exists in my Tribal community and other communities of Alaska and the Pacific Northwest. From roots to sky, cedar is used in virtually every facet of life. With cedar's unique ability to be easily split and carved, it can be used in whaling, defense and hunting (as spears), fishing and weaving (as hooks and floats for fishing nets), food storage (as bentwood boxes), canoes and paddles, tinder for matches and torches, clothing and hats, to communicate our central stories, lineage, and social structures through the carving arts such as totem poles or crests, and woven into thick rope for shaman regalia.

Cedar is used as a resting place for the ashes of the dead. It is there for the beginnings of life (birth) and is the place where we store the ashes of those who have journeyed beyond. It provides a resting place inside a carved totem or crest, traditionally raised outside in ceremony where the totem or crest is seen as its own being, exposed to land, and eventually decomposing back to land, completing the cycle of birth/death/rebirth.

As a metaphor of our relationship to land, cedar teaches us that our daily interactions with land are an invitation for nourishment on all levels of health, for us and for Mother Earth. It reminds us that through human hands interacting in a good way with land, we are able to have overwhelming abundance and nourishment of life for humans and all our more-than-human kin—that is, our animal, plant, mountain, and river ancestors. When we attempt to "other" beings who are not human, or we uphold dominant narratives of extraction and disconnection, we lose the balance of the birth/death/rebirth cycles of nature and our place in it.

Spirit of Cedar. Cedar is the spiritual guard used for its protective smoke medicine and anti-inflammatory properties. Cedar is a symbol for strength and revitalization due to its long life, its ability to regrow harvested bark, and its overall strong constitution and size. So prized is cedar for spiritual life, it is worn by community healers, shamans and culture-bearers, and used in the entire cycle of life in birth *and* death ceremonies. Further, it is said that if someone disrespects cedar, cedar will hold them accountable for going against natural law (essentially, cedar will curse a person until that person comes into right relationship with cedar).

Is it too late to find our footing on this path and turn around to embrace our role as healers for Mother Earth? I burn cedar for its smoke medicine and pray for the protection of Mother Earth and for the transformation of humanity to embrace the teachings of cedar: we are in ancient, reciprocal relationship to Mother Earth and we must be fierce protectors of that relationship because our lives, cultures, and health depend on it.

Cultural Burning and Caring for Country: Dr. Odette Best

For Indigenous Australians, "Country" is the word used to describe the lands, sky, and waters we come from, are connected to, and are part of. During the Australian summer of 2019–2020, the 2nd International Indigenous Nurse-Led Research Summit was held in Ipswich, Queensland. It brought together 150 nurses and midwives, most of whom

were Indigenous, who met to share Indigenous nurse-led research over two days. A few days before the summit, Eora Country (what is colonially known as Sydney) and her surrounding land, water, and sky Countries were enveloped in fire and a choking smoke haze. For many of the nurses attending the summit, the smoke triggered breathing difficulties and asthma, and many left Eora earlier than planned to escape the poor air quality and its subsequent breathing impacts. The summit opened amidst many conversations about climate change and its impacts on First Nations peoples often being the first and the worst to experience it.

Not long after the summit finished, an image was beamed around the world showing a dead young kangaroo caught in a barbed wire fence and burned to death. It attracted international attention and somehow symbolized the situation in Australia. The photograph felt like a catalyst for discussions about climate impacts among both Indigenous and non-Indigenous Australians.

Throughout the fire crisis, I was in regular contact with my family, some of whom live at Woorabinda (which translates to "kangaroo sit down"), a remote Indigenous community in Central Queensland. Woorabinda's population is between 750 and 1,000, and it is situated in the middle of a white-owned cattle station. Woorabinda was originally created as a colonial mission, now known as a Deed of Grant in Trust. A conversation with my cousin focused on the fires and "that photo" of the dead kangaroo. My cousin said, "You know, cuz, everyone seems to be distressed about that photo. What they [non-Indigenous peoples] see is the death of a national emblem, where *we see the death of totems and ancestors*."

The fires in eastern Australia during the summer of 2019–2020 are conservatively estimated to have killed three billion animals (World Wildlife Fund Australia, 2020) and destroyed thousands of acres of Country across dozens of Indigenous Nations. The current climate crisis exists alongside other environmental transformation and damage in Australia, which started with colonization and has unfolded in less than 250 years.

Destruction of Animal and Plant Totems. For Indigenous Australians, totems hold great spiritual significance. Our totems can be in the forms of animals, plants, or a natural object. They are part of our ancient kinships—they connect us to our people and lands and are inherited at birth. Totems can differ greatly across Aboriginal Nations, but the relational responsibility of looking after totems is something we share. Our animal totems are an extension of our human families and communities. We protect them as part of our relationality, and we never harm, hunt, or consume our totems. Animal totems are anchored to our creation and origins stories. They are not domesticated animals, as often seen in Western paradigms, and they are not transactionally owned. When they die, we experience grief, loss, and deep mourning. Our plant totems nourish and heal us and are integral to our social and emotional wellbeing and are part of our teachings. Our plant totems and the care and respect of are taught to us early and often and are widely used by our knowledge holders and keepers.

Cultural Burning. Cultural burning and the broader use of fire is an ancient and continuing practice for many Indigenous Australians. Fire is used for warmth, food production and, importantly, caring for Country through ceremony. Ancient environmental knowledge supports cultural burning practices that were once used widely across the continent. Senior fire practitioners in communities used their unrivaled knowledge of land Country and the ancient energy of fire to make decisions about cultural burning, which involved ridding land Country of excess fuel loads that could lead to uncontrollable fires. One outcome of the controlled fires created through cultural burning practices was the rich regrowth of native grasses and plants that attracted grazing animals that became sources of food, fur, and medicines.

Destruction of Culture and its Impacts on Social and Emotional Wellbeing. Land and water Countries have greatly diminished since colonization, from growing cities, mining, and agriculture, which can all be described as the stealing of resources and misappropriation of lands. In Australia, land Country has suffered detrimentally from the introduction of hooved animals which were not present prior to invasion. Our water Countries have been depleted significantly due to the introduction of water-dependent crops such as wheat and cotton that have drained water Countries of their life force in supporting totems, plants, and ceremony. Cultural water practices have been prevented, diminishing our ability to care for Country and affecting our responsibilities to care for our plant and animal totems. More recently, the effects of climate change have been apparent. Now, more than ever, we suffer from the continued destruction of our cultural responsibilities. However, this impact of climate change *is rarely spoken of in any nursing climate discourses.*

The relationality of Indigenous Australians is captured in sayings such as "healthy Country, healthy people" and "if you look after Country, Country will look after you." Caring for Country can be understood generally as an Indigenous approach to land and water management. Indigenous peoples have an innate responsibility to care for Country that is entwined with relationality to our Country. This responsibility is mainly held by Indigenous peoples. Non-Indigenous peoples do not hold this as a relational responsibility. This is not to say non-Indigenous people cannot be taught to remember their ancient traditions of living in right relationship to the land, but it would be a larger bridge to cross.

Relationality Underpins our Indigenous Obligations to Family, Community, and Country. Caring for Country has benefits for the social-political, cultural, economic, physical, and

emotional wellbeing of Indigenous peoples. Caring for Country is intricately linked to maintaining our cultural life, identity, autonomy, connection to our spirituality and ancestors and our health (Gee et al., 2014). This means that Indigenous Australians can care for their Country as they also care for their culture. Culture is a protective factor that strengthens our social and emotional wellbeing. Continued disruption and degradation of our Country affects this.

During the summer bushfires in 2019–2020, an Indigenous worldview was missing in all reporting. This situation is unchanged: there remains a limited understanding of Indigenous perspectives on the climate disaster. Media reporting focused on the deaths of national emblems, not the deaths of totems and ancestors nor the ancient cultural burning ceremonies that could have mitigated the disaster. Indigenous communities grieve for the deaths of totems and ancestors, and further grieve for the blatant disregard of cultural practices.

Keetoowah-Cherokee People and the Story of Jack and the Cedar Tree: Dr. Melessa Kelley

The Keetoowah-Cherokee people are one of the most vulnerable Indigenous populations in terms of climate change in the United States. Many Keetoowah-Cherokees live in very remote and rural areas where they are heavily impacted by climate change, often out of sight and out of mind. Recently many of our Indigenous communities have been ravaged by severe flooding and tornadoes. These extreme weather-related events have destroyed many of the Indigenous plants and trees in the area, leading to toxic water contamination that has a significant impact on the health of young children, the immunocompromised, and our Elders (Trahant & Huntington, 2024; Zimmerman et al., 2024).

Many Indigenous communities rely on traditional hunting, fishing, and agriculture, which are all highly climate sensitive. Climate events are extremely troublesome for many of the rural and remote areas, as they contaminate the natural water and food supply (i.e., wildlife, plant life, and fish) (Redvers et al., 2023). Historically, Indigenous communities have a strong connection to their natural environment. Our precious land and wildlife habitats are being lost to increases in land development, urbanization, and capitalism; land development is taking away the traditional ways of life for many Native American and Indigenous communities and killing many of our traditional plants, such as cedar and sage, and our wildlife (Flavell & Goodluck, 2021; Wade, 2021).

As Indigenous people, we are stewards of this land and our responsibility is preserving Mother Earth. But the traditional relationship the Keetoowah-Cherokee people once had with the land has been tarnished by mainstream Western culture. Assimilation, removals, relocations, dispossession of land, and now climate change hazards have interrupted this connection for many Indigenous people (Farrell et al., 2021; Treisman, 2021). By dispossessing Indigenous people and forcing them to become part of the economic stream of commerce rather than being sustained by resources on their traditional lands, Indigenous values have been altered or lost (Halpert, 2012).

The Sacredness of the Cedar Tree. Cedar is one of the most sacred trees to the Keetoowah Cherokee people. It holds deep spiritual and cultural meaning and links to our traditional ways of life. Cedar is a very powerful medicine and is often used to purify the air. It is burned as offerings at many Tribal ceremonies and special celebrations. We believe that the smoke from the cedar carries our prayers to the Creator. According to our traditions, the cedar tree holds the spirits of our ancestors. The red tint of the cedarwood represents the blood and sacrifices of our ancestors. For the Keetoowah-Cherokee people, land and culture have significant spiritual meaning, and this is often embedded in our oral traditions of storytelling. We continue to fight to protect and restore our lands with the planting of traditional plants and trees (J. Hansen, personal communication, 2025).

My father told this story to my siblings and I when we were children, and I share it now to honor him. This traditional knowledge is deeply embedded in Keetoowah-Cherokee ways of knowing, being, and doing. Years ago, when I was a little boy, I was raised by my full-blood Cherokee grandmother. One day my great-grandfather told me a story about the cedar tree. The cedar tree stays green all year because of love displayed by your family by keeping them trimmed. The trimmings are taken and burned, which helps them feel loved. During special celebrations, we decorate the cedar tree to keep their spirit alive. From a Native American or Indigenous worldview everything has a spirit. So long as we trim and care for the cedar tree, it will stay green and provide us the guidance we need. My grandmother always told me the cedar tree and children must be loved to grow and to be strong. As Cherokee people, "we have learned to celebrate every day as a special day to keep the cedar green and alive" (J. Kelley, personal communication, 2024).

The Voices of Indigenous Nurses in the Climate Space

A growing body of literature discusses the impacts of climate change on the health and wellbeing of First Nations communities (Condo Riveros et al., 2023; Hernandez, 2022; Middleton et al., 2020). Increasingly, there is a movement among First Nations nurses globally to challenge the dominant paradigm of nursing and to decolonize the approach to how the climate crisis is positioned and told. The International Council of Nurses' (ICN) (2018) position

statement on climate change and health recognizes climate change as the single largest threat to global advances in health, and asserts that climate change has the potential to undermine the past 50 years of public health gains. The Australian Council of Nurses (2021) identifies four guiding principles to address nursing leadership in emissions reduction: (1) Nurses champion climate action; (2) Nurses lead sustainable practices in health care; (3) Nurses lead global interdisciplinary collaboration; and (4) Nurses contribute to climate-informed policy and research (p. 5).

Both the ICN and the ACN fail to address Indigenous peoples' relationships to climate change, or the disproportionate impacts they face. Despite contributing the least to global carbon emissions, Indigenous communities are among the most severely affected by climate change. This disparity underscores the ongoing presence of structural racism within global climate discourse and policy (Hernandez, 2022). The unique needs of Indigenous peoples—and the complexities of cultural determinants of health—are rarely considered in mainstream climate narratives. Furthermore, climate literature often overlooks the profound and place-based knowledge embedded in Indigenous concepts such as "caring for Country," which offer vital insights for sustainable futures. A necessary first step is to center and uplift Indigenous scholars and knowledge-keepers who are already leading climate justice and advocacy. Their leadership has the potential to fundamentally reshape dominant narratives about climate change, offering pathways rooted in relationality, reciprocity, and care for all beings on Mother Earth.

First Nations nurses have been forerunners among healthcare providers who articulate the links between the climate crisis, caring for Country, and social and emotional wellbeing (mental health) impacts as experienced by Indigenous people (Brockie et al., 2023). Within Australia, First Nations nurses and midwives have contributed to the discourse of climate impact as individuals and teams for nearly three decades, long before climate change was discussed by the nursing profession. Smallwood (1996) led the way with the words: "The land has spiritual significance for Indigenous peoples. To break this bond is an assault on our mental health" (p. 102). Berry et al. (2010) stated that, "Exposure to climate-related adversities will increase, and the most vulnerable communities and regions will be worst affected" (p. 141). Approximately a decade later, Indigenous Australian nurses working in the climate impact space would write of the impacts of climate on health, with the increase of climate-sensitive diseases such as tuberculosis, dengue, and Ross River fever (Hall et al., 2021).

Further, Indigenous Australian nurses have published in the spaces of calling for more responsive nursing curricula to include climate literacy in nursing education (Best et al., 2023), and addressing the need for prepared mental health professionals to work in a culturally safe way of understanding the impact of destruction of Country for Indigenous peoples (Upward et al., 2023).

Internationally, First Nations nurses have written of water sovereignty and the responsibilities of the nursing workforce, Sanderson et al. (2020) argued that:

> Clean water is vital for health as an inclusive right for all people, yet access is threatened by climate change. Complex impacts of colonization on climate change has resulted in two key problems: lack of clean water access by Indigenous peoples and marginalization of Indigenous traditional teachings that support water protection. (p. 66)

There is a growing body of literature from Native American nurses addressing climate impact on First Nations communities. Krementz et al. (2018) pointed out that, for Native American and Indigenous peoples, land and culture are medicine. In cultures where the geography and ecosystem provide essential medicines that keep Indigenous peoples in holistic balance, the connections between people and land are critical. Opportunities to reconnect with land and culture can promote life-changing experiences for Indigenous peoples, leading to self-discovery, healing, and wellness. Connection to the land is a fundamental part of health and wellbeing (Butcher & Breheny, 2016). In this context, climate change cannot be ignored.

Land-based healing is a useful concept here, with scholarship outlined by Northern Indigenous practitioners in Canada (Redvers, 2020). Land-based healing has been understood and taught for millennia by Indigenous knowledge keepers. It recognizes "land" as a relational component of healing and wellbeing. Land-based activities such as harvesting, education, ceremony, recreation, and culturally based counseling are all components of the integrative practice. Land-based healing offers a valuable and culturally safe approach for mental health interventions and community resilience.

Climate Change as a Colonizing Force

The authors argue that climate change impact is structurally racist. This may be confronting to read, particularly as many nurses are not racist. Stating that climate change impact is structurally racist does not refer to individual responses of one person about (or to) another, but suggests that climate change involves "patterns of disadvantage that emerge from the overall functioning of the global system, often accumulated over centuries" (Williams, 2021, p. 7).

What Indigenous peoples are experiencing now has its genesis in decisions that, in some cases, were made centuries ago. American sociologist Howard Winant (2004) writes that "racism must be understood in terms of its consequences, not as a matter of intentions or beliefs" (p. 126). It is these decisions made centuries ago that are still being felt today: the decisions of invading and conquering Indigenous Nations and building economies that demonstrate might and success through measuring the gross domestic product. However, what is being experienced now by us, and by our family,

kin, totems, community, and Indigenous Nations, is the inequitable effect of climate change. The global climate crisis needs a social justice lens applied; of course it is impacting the natural world, the animal world, and the human world, but there is a racial marker to the continued inequities of climate change. An intersectional lens allows us to understand the nexus that is Indigenous peoples, ongoing colonialism, continued racism, and the way the climate crisis continues to be experienced.

Possession and Appropriation of Indigenous Bodies and Knowledges

Within the climate space there has been an upswing in discourses around what can be learnt from *our* Indigenous peoples that will help us in the current climate crisis. This is highly problematic due to utilizing possessive language in describing Indigenous peoples as *ours* and the potential appropriation of Indigenous knowledges. Globally, Indigenous peoples and knowledges have been positioned as the possession of the colonizers, stolen and utilized with no acknowledgement nor financial remuneration. For example, within Australia, the huge export industries of eucalyptus and tea tree oils as antimicrobials are now widely known, but the colonizers of Australia witnessed and watched Aboriginal communities use these as traditional medicines, deemed them as having efficacy within Western biomedical paradigms, and then patented the oils and now sell them globally. There has been no recompense to Indigenous communities for the theft of these knowledges nor the profit that is made from this market, nor the immeasurable damage to Australia's biodiversity.

The language of "using Indigenous knowledges" needs to acknowledge that Indigenous practices such as cultural burning were undertaken in a pre-invasion context and are deeply anchored to Indigenous ways of knowing, being, and doing. The land Country now could not be further away from its pre-invasion state. Introduced humans, foreign animals, and foreign plants have had detrimental impacts on Indigenous states of biodiversity. This is not to say that Indigenous knowledges cannot be used, but this needs to occur with Indigenous peoples in shared spaces and co-designed with benefit for all.

Indigenous Environmental Justice

People with more wealth can afford more flights, more meat, more energy, and more material goods and, therefore, have larger carbon footprints. Indigenous peoples have lower incomes, poorer housing, and higher rates of unemployment, and, therefore, have less infrastructure in their homes and places of residences and use much less energy. It is this composite of poverty that creates the most detrimental effects on Indigenous peoples living on the margins. This is an economic injustice of climate impact.

Use of the Term Anthropocene

The impact of climate change is different for Indigenous and non-Indigenous people, and the need to *not* utilize homogenizing language such as *Anthropocene* is perhaps warranted. The term *Anthropocene* was proposed in 2000 by Crutzen and Stoermer (2000). However, in 2024, the International Union of Geological Sciences rejected the use of this term, arguing that the proposal for marking the beginning of the Anthropocene in 1952 failed to account for the deeper history and the ultimate causes of planetary crisis currently underway (Samuel, 2024). Yusoff (2018) outlined that using language such as *Anthropocene* neatly erases histories of racism. Indigenous peoples do not own the legacy of invading other countries in the name of empire building but bear the legacy of being invaded. Indigenous peoples did not participate in the process of mass industrialization which decimated biodiversity systems, markedly increased pollution, and irreversibly damaged land use through introducing foreign animals and crops. Indigenous peoples did not indulge in extraction-based economies and are not responsible for the events now being felt.

Kashwan and Hasnain (2025) further argue that:

> While this new terminology could have triggered a rethink of fundamental meanings of progress and development, Anthropocene is now being deployed as a legitimizing device for technocratic and potentially authoritarian approaches to deal with environmental crises, drawing attention to the environmental crisis while continuing to obscure the actors who are mostly responsible for the crisis, that is European and other western elites. (p. 50)

Indeed, the environmental crisis is twinned with an inequality crisis (now becoming accepted as *polycrisis*) with analysis revealing the links between the concentration of wealth, political power, and high-polluting elite individuals (Alestig et al., 2024).

Environmental justice demands understanding that the relationship between the climate crisis, capitalism, histories of invasion, and subsequent colonization and structural racism impacts the health outcomes of Indigenous peoples. It requires understanding the impacts of the toxic combination imposed on Indigenous peoples. It requires a deep understanding of Indigenous colonial histories and a deliberate step away from neo-colonialism and its romanticized notion of Indigenous peoples.

Conclusion

As nurses, both Indigenous and non-Indigenous, we will be caring for communities impacted by the climate crisis. Our

role as educators is to inform and teach our future generations of nurses to work in a world where significant climate events such as fire, floods, cyclones, and earthquakes will only increase. We ask that in teaching about climate impact/crisis, the voices of Indigenous peoples are heard and their advocacy implemented. We argue that to be an effective climate activist is to be an activist in Indigenous climate justice and more broadly social justice issues.

First Nations people have a unique relationship with Country, and nurses working in this space must be prepared for the work ahead. Given that we are facing a global climate emergency that requires a whole-of-humanity response (Intergovernmental Panel on Climate Change, 2021), the nursing discipline needs to consider the path ahead, particularly in terms of its responsibilities to First Nations communities' social and emotional wellbeing. While climate change impacts everyone, it disproportionately impacts Indigenous peoples as the first and the worst to experience it (First Nations Health Authority, 2015; Sanderson et al., 2020). Being a climate activist/disruptor means being an advocate for social justice and disrupting Western paradigms of economy, ownership, and capitalism.

Acknowledgments

The authors acknowledge that this is original work and is not currently under review.

Author contribution(s)

Odette M. Best: Conceptualization; Formal analysis; Methodology; Project administration; Writing – original draft; Writing – review & editing.

Declaration of conflicting of interest

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iDs

Odette M. Best https://orcid.org/0000-0002-2362-0101
Melissa Vera https://orcid.org/0000-0002-9208-6248
Melessa Kelley https://orcid.org/0000-0001-7336-6044

References

Alestig, M., Dabi, N., Jeurkar, A., Maitland, A., Lawson, M., Horen Greenford, D., & Khalfan, A. (2024). *Carbon inequality kills: Why curbing the excessive emissions of an elite few can create a sustainable planet for all*. Oxfam International. https://www.oxfam.de/system/files/documents/carbon_inequality_kills.pdf.

Australian College of Nursing. (2021). *Position statement: Ethical leadership in emissions Reduction*. Australian College of Nursing. https://www.acn.edu.au/advocacy-policy/position-statement-ethical-leadership-in-emissions-reduction.

Berry, H. L., Butler, J. R., Burgess, C. P., King, U. G., Tsey, K., Cadet-James, Y. L., Rigby, C. W., & Raphael, B. (2010). Mind, body, spirit: Co-benefits for mental health from climate change adaptation and caring for country in remote Aboriginal Australian communities. *New South Wales Public Health Bulletin*, *21*(6), 139–145. https://doi.org/10.1071/NB10030

Best, O., Tutticci, N., Heart, D., Lokmic-Tomkins, Z., & Ward, A. (2023). Rising to the climate challenge: Integrating climate action in the undergraduate curriculum. *Australian Journal of Advanced Nursing*, *40*(3), 1–2. https://doi.org/10.37464/2023.403.1266

Brockie, T., Clark, T C, Best, O., Power, T., Bourque Bearskin, L., Kurtz, D. L. M., Lowe, J., & Wilson, D. (2023). Indigenous social exclusion to inclusion: Case studies on indigenous nursing leadership in four high income countries. *Journal of Clinical Nursing*, *32*(3-4), 610–624. https://doi.org/10.1111/jocn.15801

Butcher, E., & Breheny, M. (2016). Dependence on place: A source of autonomy in later life for older Māori. *Journal of Aging Studies*, *37*, 48–58. https://doi.org/10.1016/j.jaging.2016.02.004

Condo Riveros, S. F., McGlade, H., & Roth, G. (2023). Indigenous determinants of health in the 2030 Agenda for Sustainable Development. United Nations Economic and Social Council, Permanent Forum on Indigenous Issues. https://digitallibrary.un.org/record/4004608.

Crutzen, P. J., & Stoermer, E. F. (2000). The 'anthropocene' (2000). *Global Change Newsletter*, *41*(May 2000), 17–18. https://www.mpic.de/3865097/the-anthropocene.

Farrell, J., Burow, P. B., McConnell, K., Bayham, J., Whyte, K., & Koss, G. (2021). Effects of land dispossession and forced migration on Indigenous peoples in North America. *Science*, *374*(6567), eabe4943(2021). https://doi.org/10.1126/science.abe4943

First Nations Health Authority. (2015). First Nations perspectives on health and wellness. First Nations Health Authority: Health through wellness. https://www.fnha.ca/wellness/wellness-for-first-nations/first-nations-perspective-on-health-and-wellness.

Flavell, C., & Goodluck, K. (2021, June 27). Dispossessed again: Climate change hits Native Americans especially hard. New York Times. https://www.nytimes.com/2021/06/27/climate/climate-Native-Americans.html.

Gee, G., Dudgeon, P., Schultz, C., Hart, A., & Kelly, K. (2014). Aboriginal and torres strait islander social and emotional wellbeing. In P. Dudgeon, H. Milroy, & R. Walker (Eds.), *Working together: Aboriginal and torres strait islander mental health and wellbeing principles and practice* (pp. 55–68). Commonwealth of Australia.

Hall, N. L., Redmond, A., Canuto, C., Nona, F., & Barnes, S. (2021). *Torres Strait Islanders face more than their fair share of health impacts from climate change*. The University of Queensland. https://medicine.uq.edu.au/article/2021/08/torres-strait-islanders-face-more-their-fair-share-health-impacts-climate%C2%A0change.

Halpert, J. (2012, June 21). Native Americans and a changing climate. Yale Climate Connections. https://yaleclimateconnections.org/2012/06/native-americans-and-a-changing-climate/.

Heritage Conservation Act, R.S.B.C. 1996, c. 187. (n.d.). BC Laws. https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/96187_01.

Hernandez, J. (2022). *Fresh banana leaves: Healing Indigenous landscapes through Indigenous science*. North Atlantic Books.

Intergovernmental Panel on Climate Change. (2021). Climate change 2021: The physical science basis. IPCC. https://www.ipcc.ch/report/ar6/wg1/.

International Council of Nurses. (2018). Position statement: Climate change and health. ICN. www.icn.ch/sites/default/files/inline-files/ICN%20PS%20Nurses%252c%20climate%20change%20and%20health%20FINAL%20.pdf.

Kashwan, P., & Hasnain, A. (2025). *Decolonizing environmentalism: Alternative visions and practices for environmental action*. Bloomsbury Academic.

Krementz, D. H., Macklin, C., King, A., Fleming, T., Kafeety, A., Lambert, S., Laframboise, S. L., & Nicholson, V. (2018). Connections with the land: A scoping review on cultural wellness retreats as health interventions for indigenous peoples living with HIV, Hepatitis C, or both. *ab-Original*, *2*(1), 23–47. https://doi.org/10.5325/aboriginal.2.1.0023

Middleton, J., Cunsolo, A., Jones-Bitton, A., Wright, C. J., & Harper, S. L. (2020). Indigenous mental health in a changing climate: A systematic scoping review of the global literature. *Environmental Research Letters*, *15*(5), 053001. https://doi.org/10.1088/1748-9326/ab68a9

Redvers, J. M. (2020). The land is a healer": Perspectives on land-based healing from indigenous practitioners in northern Canada. *International Journal of Indigenous Health*, *15*(1), 90–107. https://doi.org/10.32799/ijih.v15i1.34046

Redvers, N., Aubrey, P., Celidwen, Y., & Hill, K. (2023). Indigenous peoples: Traditional knowledges, climate change, and health. *PLOS Global Public Health*, *3*(10), e0002474. https://doi.org/10.1371/journal.pgph.0002474

Rigney, L.-I. (1999). Internationalization of an indigenous anticolonial cultural critique of research methodologies: A guide to Indigenist research methodology and its principles. *Wicazo Sa Review*, *14*(2), 109–121. https://doi.org/10.2307/1409555

Samuel, S. (2024, March 20). Why did geologists reject the "Anthropocene" epoch? It's not rock science. Vox. https://www.vox.com/future-perfect/2024/3/7/24092675/anthropocene-climate-change-epochgeology.

Sanderson, D., Mirza, N., Polacca, M., Kennedy, A., & Bourque-Bearskin, R. L. (2020). Nursing, Indigenous health, water, and climate change. *Witness: The Canadian Journal of Critical Nursing Discourse*, *2*(1), 66–83. https://doi.org/10.25071/2291-5796.55

Smallwood, G. (1996). Aboriginality and mental health. In M. Clinton, & S. Nelson (Eds.), *Mental health and nursing practice* (pp. 103–118). Prentice Hall.

Smith, L. T. (1999). *Decolonizing methodologies: Research and Indigenous peoples*. Bloomsbury Publishing.

Trahant, M., & Huntington, S. (2024, May 9). Tribal communities face severe risks of flooding due to climate change. Truthout. https://truthout.org/articles/tribal-communities-face-severe-risks-of-flooding-due-to-climate-change/.

Treisman, R. (2021, November 2). How loss of land makes Native Americans more vulnerable to climate change. National Public Radio Network. https://www.npr.org/2021/11/02/1051146572/forced-relocation-native-american-tribes-vulnerable-climate-change-risks.

Upward, K., Usher, K., & Saunders, V. (2023). The impact of climate change on country and community and the role of mental health professionals working with Aboriginal communities in recovery and promoting resilience. *International Journal of Mental Health Nursing*, *32*(6), 1484–1495. https://doi.org/10.1111/inm.13184

Wade, L. (2021, October 28). Native tribes have lost 99% of their land in the United States: New data set quantifies Indigenous land dispossession and forced migration. *Science*. https://doi.org/10.1126/science.acx9508

Williams, J. (2021). *Climate change is racist: Race, privilege and the struggle for climate justice*. Icon Books.

Winant, H. (2004). *The new politics of race: Globalism, difference, justice*. University of Minnesota Press.

World Economic Forum [WEF]. (2024, February 9). *Climate action: Land, loss and liberation: Indigenous struggles amid the climate crisis*. WEF. https://www.weforum.org/stories/2024/02/indigenous-challenges-displacement-climate-change/.

World Wildlife Fund Australia [WWF]. (2020, January 8). *New WWF report: 3 billion animals impacted by Australia's bushfire crisis*. WWF. https://wwf.org.au/news/2020/3-billion-animals-impacted-by-australia-bushfire-crisis.

Yusoff, K. (2018). *A billion Black Anthropocenes or one*. University of Minnesota Press.

Zimmerman, O., Eison, T., Carey, R., & Levin, P. S. (2024). Addressing inequities and meeting needs of Indigenous communities in floodplain management. *Frontiers in Climate*, *6*, e1306542. https://doi.org/10.3389/fclim.2024.1306542

Author Biographies

Odette Best, (Gorreng Gorreng, Boonthamuura, Yugembeh), PhD, RN, is Honorary Professor, Office of Indigenous Engagement, University of Queensland, in Queensland, Australia.

Melissa Vera, *Goi'pa Lackdaaw,* Sun on the Frost, (Tsm'syen/Yaqui First Nations), PhD, RN, (she/her), is an Assistant Professor in the College of Nursing & Elson S. Floyd College of Medicine at Washington State University in Seattle, Washington.

Melessa Kelley, (Keetoowah-Cherokee), PhD, RN, (she/her), is an Assistant Professor in the School of Nursing at the University of Texas at Austin.