Understanding the impacts of climate change on the Northern Inuit community

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The increasing rate of anthropogenic climate change has a serious impact on weather and temperature, wildlife and vegetation patterns, and food and water availability. The dramatic effects of climate change are also experienced by the Indigenous communities of the North, making them the primary victims of this existential global health threat. While it is recognized that climate change can cause emotional and mental distress to a general population, the effects of climate have significant impacts on the Northern Inuit community who use the land to hunt, harvest, and practice their cultural beliefs. With the Indigenous population already at a higher risk and susceptibility to health disparities, climate change is an additional factor that further exacerbates the land-based relationality. Inuit mental health relies on the stability of land-based associations which allows the community to connect with their ancestors, nature, and history. A disconnect in relationality to the land, an involuntary diminishment of important cultural ties, and relocation are all involuntary environmental stressors that were thrust onto Indigenous communities due to climate change. While the impacts of climate change may contribute to re-traumatization, stress, and negative mental health, there is also strength found within the changes which demonstrate cultural resiliency. This paper aims to understand the impacts of climate change on the Indigenous communities of the north, with a key focus on Inuit mental health and land-based relationality within Inuit mental health.

Keywords: climate change, Indigenous health, resiliency, mental health, Inuit.

Introduction

Over the last couple of decades, the impacts of anthropogenic climate change have been increasing on a global scale, affecting weather and temperature, wildlife and vegetation patterns, and water and food quality and availability.[1] Evidence of climate change is documented by increases in seasonal temperatures, decreases in sea ice thickness, and volatile fluctuations in weather patterns.[2] The dramatic changes are currently experienced by residents of Northern Canada, the primary victims being remote Inuit Indigenous communities. The downstream effects of climate change impact human health and well-being, causing disruptions to the social, economic, and environmental determinants of health.[1] With climate change acting on wildlife and vegetation patterns at a rapid pace, literature has reported that rapidly changing and unstable ecological climates may impose additional negative effects on mental health and well-being of the Indigenous communities of the north.[1,3,4]

There is also an overarching misunderstanding that mental health equates only to mental illness and that an absence of illness means the presence of absolute health.[5] However, it is important to understand that mental health, like physical health, encompasses wellbeing, emotional resilience, and affirmative health.[5] Along with the generalized stress on wellbeing that climate change imposes, emerging research also suggests that climate-change related impacts on mental health are anticipated to be profound, cumulative, and widespread.[4] Such impacts are felt by those who already have pre-existing mental health conditions, marginalized populations, or those who rely on the climate around them for their day-to-day activities.[6] It should be noted that research on the mental health of Indigenous communities is limited, as there is not a consensus on a culturally relevant definition for "mental illness" or "mental health".[1]

Notes:

1. Some concepts used within this text may apply general notions about Indigenous Health to Inuit Mental health. We acknowledge that within the umbrella term of Indigenous there are many unique distinctions, that go even beyond simply First Nations, Inuit, and Métis. However, for this paper, some ideologies that are applied to Indigenous peoples may be used as they are prevalent among many Indigenous communities, including some Inuit. This is not meant to diminish the unique identity and experiences of Inuit peoples, and evidence and data related specifically to Inuit communities will be prioritized.
2. The purpose of this commentary is limited to Northern Canada with views and literature primarily from the Nunatsiaviut region. This commentary does not aim to generalize findings nor experiences. The authors of this paper wanted to obtain an in-depth exploration of Canadian Inuit Communities.

Presently, Indigenous individuals in Canada are at a higher risk for several health disparities. The social determinants underpinning these health disparities range from intergenerational trauma to racism within the healthcare system. These vulnerabilities are further exacerbated in rural and remote communities that have lower accessibility to healthcare resources.[5] For many Inuit communities in Northern Canada, accessing healthcare professionals is burdensome, and often includes extensive travel, unfamiliar environments, and inconsistent treatment.[7] Inequalities in health status are equally prevalent for mental health. Not only are individuals of Northern Canada's Inuit communities at a higher risk for mental health disparities, but this inequality is compounded by the healthcare system's inability to meet their needs.[8] The aim of this paper is to explore the impact of climate change on the Indigenous communities of Northern Canada, with a key focus on Inuit mental health and the land-based relationality within Inuit mental health.

Inuit Mental Health

Inuit mental health relies on the stability of several forms of relations with one of these being their relation to the land. Many land-based practices have become a form of resilience and reconciliation because these traditions are a way of reconnecting with pre-colonized Inuit culture.[9] Indigenous peoples are at a higher risk for mental health disparities when compared to the general population. The reasons behind these health inequalities result from a combination of factors that all stem from the harmful history of colonization that has lasting effects and is still very prevalent in many Canadian Institutions. The evidence of Indigenous mental health disparities is overwhelming. For example, suicide rates in most Northern Canadian Indigenous populations are well-above the global average, with Nunavut coming in at a rate of 76 per 100 000.[1] These health disparities persist in both Inuit men and women. While men experience higher levels of suicide and violence, women show less visible mental health issues such as suicidal thoughts and depression.[10] Alcohol and substance abuse also correlate with many mental health issues and are reportedly used in the form of self-medication to deal with the lasting effects of intergenerational trauma.[11]

How climate change directly impacts Inuit mental health

Inuit individuals perceive that the integrity of their connection to the land is essential for their mental health and resilience.[1] Going outside into the community, performing acts of teaching, hunting, and other land-based activities are their way of dealing with stress and the problems of daily life. Inuit peoples living in Northern Canada are particularly vulnerable to the effects of climate change due to their reliance on land-based resources, reduced economic opportunities, and poor connection to larger urban resources.[10] This vulnerability can result in adverse effects on Inuit mental health in several ways. Climate change creates new stressors that can exacerbate existing mental illnesses or trigger the onset of new mental illnesses. Similar to when Inuit land was taken by European settlers, the destructive effects of climate change can invoke similar feelings of loss of land and an uncertain future.[1,10] This may trigger re-traumatization. Additionally, there may be a disruption of social, economic, and environmental determinants of mental health. Finally, the disruption of traditional systems may inhibit enculturation due to the changes in the landscape, or local species.[10] The term Sostalgia used in the study by Willox and colleagues captures these feelings of stress described by the Inuit Community in Rigolet, Nunatsiavut, Canada.[1] This term is defined as a sense of place-based distress that one experiences when one's surroundings and intimately familiar landscape have changed too rapidly. For example, a study by Middleton and colleagues found an association between warmer temperatures and an increased incidence of mental health-related clinic visits in the Nunatsiavut region.[4] This correlation between a change in environmental stability, in the form of temperature, and the increased use of mental health services could point to one of the many ways the rapid changes in the environment, caused by climate change, affect the health of local residents. Given what is known about the importance of land to Inuit Mental health, it makes sense that this connection is drawn. A decreased stability in the environment disrupts the relationship to the land, thus decreasing stability within communities and individuals. As highlighted by Willox that "even subtle alterations in climate and environment affect the sense of place and time spent 'on the land'." [1]

Land-based associations to mental health

As previously mentioned, this manuscript discusses an undefined yet important cultural concept within mental health which is land-based associations.[1] Several studies have reported that the land connects Inuit people with their ancestors, and with nature, allowing for spiritual enrichment, continuity of traditions, and remembrance of history.[9] The associations with land have been taught and understood for several decades by Indigenous knowledge holders to their "millennia, knowledge users, [and] community" (who knowledge is given to).[12] This knowledge is currently being revitalized by practitioners of the northern communities where 'land' is understood as a relational component of both healing and wellbeing which include activities such as recreation, harvesting, ceremonial and cultural-based counselling.[12] Land-based practices are essential in Indigenous pedagogy and recognize that cultural identity is intertwined with and connected to 'land'.

The most notable finding in our literature review and search was the ways in which connection to the land was interconnected with the Inuit community. Examples of land and land-centered activities such as fishing, hunting, animal trapping, foraging, and traveling to close-by communities are integral to Inuit communities' culture, identity, and spirituality.[1] With polar ice caps melting at an alarming rate of 9% per decade, the loss of ice impacts the ecosystem and animals it entails, ultimately impacting the Inuit communities' land-based activity.[1, 15] It is also important to note that most Inuit people continue to spend a considerable amount of time harvesting. Such activities are highly weather dependent and rely on the presence of stable, thick, and extensive ice and snow conditions throughout 7 to 8 months of the year in the North.[1]

In a study by Walsh and colleagues, the authors found participants' comments regarding physical, spiritual, and mental health often referred to the attitudes and practices that affirmed a fundamental connection to their land.[13] This connection further informed individual and community efforts to maintain overall well-being. This included activities such as regular hunting trips and the bridge between different spiritual beliefs. There was also a universal concern for "challenges" that entailed some form of disconnect from the land. Several examples such as relying on store-bought food rather than hunted food or increasing the role of television and video gaming in the lives of young people influences and drives away from older values and beliefs of retaining the man-powered skills of hunting.[13] Furthermore, the challenges are detrimental and hold colonized views which distance individuals from their previously held Indigenous values. This holds implications within as well as beyond a community. Walsh and authors note that "if a sense of connection to the land is a central feature of well-being, then it may need to be a central feature of mental health interventions." [13] With climate change currently affecting northern communities at a rapid pace, it is important to understand the implications and interventions that are needed to handle the growing issue.

Discussion

A disconnect in relationality to the land, an involuntary diminishment of important cultural ties, and relocation are all involuntary environmental stressors that are thrust onto Indigenous communities due to climate change.[1,3,9] In many ways, climate change parallels the colonization that occurred when settler-colonial influence came to these lands and established institutions to perpetuate the genocide and cultural genocide of Indigenous peoples. Indigenous peoples have a strong connection to the land linked to their identity, psychological needs, and interpersonal relationships.[4] Unplanned relocation due to climate change and the environmental impacts that no longer allow landscapes to support Indigenous communities interfere with these relationships. This echoes the trauma of when Indigenous populations were relocated to reserves by settler-colonial influence. Furthermore, it's been established that the changing landscapes of climate change can also interrupt important cultural practices and teachings. This process is referred to as acculturation and has largely negative effects on mental health.[10] Similarly, only 25 years ago, the last residential school was closed. Residential schools were institutions whose main goal was to interrupt, erase, and eradicate all Indigenous culture. It is possible to see how the effects of climate change are instigating the feelings of trauma many Indigenous people felt firsthand. An Inuit harvester explains that "climate change takes away those land activities and people feel less capable, less

able to prove, and less health about themselves, then those mental and emotional impacts will either come more to the forefront and must be dealt with, or they may just be built upon ... I think that those effects from the trauma of residential schools and assimilation will be felt further if climate change affects land activity." [4] Such rapid change and acculturation will instigate re-traumatization, further exacerbating mental health issues from climate change.[10] In addition, this loss of cultural practices also disengages potential protective factors and coping strategies shown to be strong in Indigenous mental health.

Although the potential for re-traumatization and its accompanying effects will add additional stress and can have negative mental health effects for Indigenous peoples, there is also some strength to be found within these changes, and that is the concept of resiliency. Along with the actions of colonization covered above, decreased socio-political power and status, and higher than average suicide and addiction levels, Inuit communities across Canada have continued to demonstrate strength and resiliency.[1] The Inuit communities within these many mental health studies reported health disparities in mental health, but also a wide array of coping mechanisms that they have been forced to establish to overcome their harsh history of colonization and the lasting effects of colonization. Although indigenous relation to the land has been established as an important mechanism, many participants stressed the importance of developing coping mechanisms that do not focus on the land and instead focus on relation to each other and the community.

Conclusion

This paper aimed to prioritize the understanding of climate change within a Canadian context. The studies and concepts explored in this paper are limited to Inuit communities in Northern Canada. It is important to note that the analyses of this study are not meant to be generalizable, and the described experiences are unique to each individual and community. Future research into the impacts of climate change on Indigenous mental health should be explored with a broader lens and incorporate Indigenous communities across all territories and provinces to develop a more comprehensive understanding of the community-specific effects of climate change on mental health.

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