


ORIGINAL RESEARCH

Promoting women's wellbeing through the *Niska* (Goose) Harvesting Program in subarctic Ontario, Canada

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ABSTRACT:

Introduction: Geese harvesting is a longstanding cultural tradition deeply ingrained among the *Omushkego* Cree in Fort Albany First Nation, embodying a holistic approach to health that integrates Indigenous knowledge, community wellbeing, and resilience. Despite historical disruptions stemming from colonization and assimilation policies, women have played a pivotal role in preserving and passing down traditional practices. The significance of goose harvesting extends beyond providing a nutrient-rich and cost-effective food source; it serves as a vehicle for cultural preservation and education, particularly fostering language acquisition among children. Nevertheless, concerns persist regarding the potential decline in the transmission of Indigenous knowledge. The interruption of intergenerational knowledge transfer not only poses implications for overall wellbeing but also worsens historical trauma within the community. In response to these challenges, the *Niska* (goose) harvesting program was developed with an aim to revitalize community harvesting practices, with a specific focus on incorporating the perspectives of women, especially in the preparatory and smoking phases of the geese.

Methods: *Omushkego* Cree women were approached to participate. The study was conducted during the spring of 2018, and employed photovoice and semi-structured interviews that explored the impact of geese preparatory activities on the health

Keywords:

First Nations, goose harvesting, Indigenous knowledge, photovoice, qualitative research, subarctic Canada, wellbeing, wellness.

and wellbeing of Indigenous women.

Results: Major themes from the qualitative data included the importance of knowledge sharing, cultural continuity, healing, and the profound connection to the land. Women emphasized the value of sharing acquired knowledge, passing on traditions, and maintaining a connection to their cultural identity. Cultural continuity, depicted through intergenerational teachings and experiences, emerged as crucial for overall wellbeing. Participants spoke of the healing dynamics derived from engaging in traditional activities, highlighting the positive impact on physical, mental, emotional, and spiritual wellbeing. The land was identified as a central element in this healing process, representing more than just a physical space but an extension of home, contributing to a sense of peace and tranquility. The land became a medium for transmitting cultural teachings, shaping identity, and sustaining a subsistence lifestyle.

Conclusion: The study emphasizes the importance of future research including more female youth participants to uncover specific challenges and strengths within this demographic. Overall, the *Niska* program demonstrates a comprehensive approach that intertwines cultural revitalization, community engagement, and holistic wellbeing, emphasizing the need for interventions that go beyond immediate challenges to create enduring positive impacts on Indigenous communities.

FULL ARTICLE:

Introduction

The practice of harvesting geese is deeply rooted in Cree cultural traditions and exemplifies a holistic perspective with respect to health by intertwining Indigenous knowledge, community wellbeing, and resilience – with women playing an essential role in knowledge preservation and transmission, especially with respect to water¹. The fabric of Indigenous families, intricately woven with connective kinship, extends beyond individual households to encompass entire communities, playing a pivotal role in the health and wellbeing of the *Omushkego* Cree Nation of subarctic Ontario, Canada¹. Historically in Canada, colonization and assimilation policies disrupted the harmony of family networks, changing subsistence practices, and creating a shift towards a more patriarchal system. The residential school system, along with the '60s Scoop' and enfranchisement (both forced and voluntary) aimed to separate Indigenous children from their families and traditional land, imposing a significant challenge to the preservation of traditional practices^{2,3}. Environmental assimilation where ancestral land was (and is) developed to the point whereby the practicing of cultural traditions is impacted is another concern^{2,3}. Specifically, in Fort Albany First Nation (FAFN), subarctic Ontario, Canada, these changes redefined the concept of home

and altered harvesting activities, creating a shift from extended family involvement in months-long trips to more concentrated, shorter excursions⁴.

Despite these changes, women retained a crucial role in acquiring and preparing traditional foods, showcasing their resilience and adaptability⁵. For recognized knowledge-holders, their skills encompassed hunting and nurturing the young⁵.

Women in FAFN have been instrumental in maintaining these traditions, ensuring the transmission of knowledge, which is essential for the community's health and wellbeing. Geese harvesting, deeply rooted in *Omushkego* Cree culture, not only provides a nutrient-rich and cost-effective food source but also contributes to the management of over-abundant geese species^{6,7}. It's also noteworthy that the harvesting of geese also serves as an educational opportunity for youth. During these activities, youth not only learn about geese anatomy through hands-on experience but also engage in conversations in the Cree language. The immersive learning environment on the land is recognized as one of the most effective ways for youth to acquire and retain the Cree language⁸⁻¹⁰. Elders and experienced community members speak in Cree during these gatherings, ensuring that linguistic knowledge is not only preserved but

actively transmitted to younger generations⁶. However, concerns arise due to the potential decline in the transmission of Indigenous knowledge, which includes skills and stories shared among community members^{5,7,10}. Despite the challenges, the practice of goose harvesting stands as a powerful means of cultural preservation and educational enrichment within the community.

The disruption of intergenerational knowledge transfer has implications for the overall health and wellbeing of Indigenous peoples, and has impacted issues such as food security and environmental integrity, and caused marginalization^{2,6,8,11-13}. This systematic disruption has also contributed to the transmission of historic trauma impacting cultures, social structures, and familial relationships within the community^{8,12,14}. Recognizing the profound connections between these factors, it becomes evident that addressing the health and wellbeing disparities among Indigenous women requires a holistic approach, considering individual, family, and community dynamics⁵, and culture¹. The physical environment, represented by the land (water and air), emerges as a central place for healing being culturally appropriate^{1,9,15}. In response to the aforementioned challenges, the *Niska* (goose) harvesting program was conceived by FAFN leadership to help revitalize community harvesting activities, fostering connections between youth, Elders, experts, the land, and cultural traditions. While the broader *Niska* program mainly involved men⁷, women played a vital role in goose preparation and smoking, transmitting their knowledge to the younger generations.

As there is a need for more Cree women's perspectives in relation to studies exploring the impacts of traditional land-based activities on the health and wellbeing of Indigenous peoples, the present study involved *Omushkego* Cree women who participated in the *Niska* program to present their perspectives.

Methods

Study design and participants

The study is set in FAFN and is a culmination of a longstanding partnership between the community and academic researchers. Key community members (eg AS, CS, RD) and non-Indigenous researchers (FA, AZ, ENL, LJST) have worked together to address local environmental and health concerns. This collaborative effort, initiated and coordinated by FAFN leadership (eg AS) and other community members (eg RD), underscores a commitment to meaningful engagement and shared decision-making. The FAFN representatives selected the on-the-land experts for the geese preparatory activities (eg plucking) and smoking activities. Elders and on-the-land experts coordinated the activities, deciding when, where, and how the harvesting would occur, and what information would be communicated to the non-Indigenous research team members.

The program was guided by a community-based participatory research (CBPR) approach, which fostered a collaborative environment actively involving community members as partners throughout the study. This methodology ensured that the research was culturally relevant, respectful, and empowering, prioritizing the community's needs and perspectives while enhancing the validity and impact of our findings¹⁶. By using this approach, we facilitated a more comprehensive understanding of health and wellbeing, incorporating the diverse perspectives and experiences of community members. Adherence to OCAP (ownership, control,

access, and possession) principles governed data and information collection, ensuring protection, ethical use, and responsible sharing.

An informed consent process was utilized, with provisions for translators if Cree was the preferred language. Participation in the research was entirely voluntary, and data anonymity was maintained, allowing identification only by the principal investigator and community coordinator.

The spring 2018 geese preparatory activities took place during the broader *Niska* program⁷, ranging from 2 days to 1 week, and involved five women from the community who are experts in the geese smoking and associated activities. The broader *Niska* program⁷ was used for a deductive approach, which guided the analysis of the present study, drawing on the insights and outcomes from the 2018 activities to understand the impact of land-based programs in FAFN.

All geese obtained were shared within the community.

Data collection and analysis

Photovoice was used to allow for the empowerment of individuals by providing an opportunity to present participant perspectives and experiences with regards to health and wellbeing. Photovoice served as a powerful tool for decolonization by centering the perspectives of those historically marginalized. Through this method, we aimed not only to depict the ramifications of colonization and historic trauma but also to actively engage in a process of reclaiming narratives. By including photovoice within our discussions, we sought to forge a meaningful connection that amplifies voices while acknowledging and addressing the enduring impacts of colonialism. A GoPro Hero5 (GoPro, Inc., https://gopro.com/content/dam/help/hero5-black/manuals/HERO5Black_UM_ENG_REVD_Web.pdf) was provided to each participant, and they were instructed to take photos of anything they associated with their wellbeing and provide a subsequent narration of these photos using them as prompts. The photos presented are representative of the participants' perspectives, providing a visual for their experiences and insights. Some photos allowed participants to visually share their teachings, enriching the narrative with clear representations of their cultural practices and identity. This aligns with previous studies, which have found that visual cues and hands-on experiential teaching, tailored to the community and its environment, are both effective in engaging youth and culturally appropriate¹⁷⁻¹⁹.

Participants who did not take photos were still invited to participate in the semi-directed interview.

Semi-directed interview questions were developed in collaboration with FAFN representatives, focusing on topics such as being on the land and wellbeing, including both opportunities and barriers. Participants were allowed to bring a translator of their choice, with English translations used for interviews conducted in Cree. The interviews occurred in a neutral setting, recorded on data recorders. The five interviews ranged from 10 to 40 minutes. Our interview data employed conversational methodology to validate the findings. This included working directly with participants and the community members to conduct iterative dialog and feedback loops, to ensure accuracy and authenticity of our findings²⁰. This approach facilitated a reciprocal exchange of insights, through community meetings during and after the project, enriching the

interpretation of data and fostering a deeper understanding of participants' experiences and perspectives²⁰.

All data were securely stored at the University of Toronto on encrypted computers accessible only to the authors. Manual transcription of interviews and narrations was conducted, employing NVivo v11 (Lumivero; <https://lumivero.com/products/nvivo>) for verbatim analysis. Adhering to a deductive approach, the thematic analysis involved reviewing transcriptions across multiple stages to identify significant phrases, sentences, or paragraphs. Coding these sections facilitated the identification of relationships between themes aligned with the main categories from prior studies (knowledge, identity, healing, and land)^{7,10}. Further details of the methods can be found in Ahmed et al⁷.

Ethics approval

Ethics approval was secured from the University of Toronto, Toronto, Ontario, Canada, protocol #35947 and the Toronto Metropolitan University, Toronto, Ontario, Canada, protocol #2017278.

Results

The preparation of geese was a significant part of the spring 2018 *Niska* (goose) harvesting program. The women actively engaged in the plucking and preparation of both giant Canada geese (*Branta canadensis maxima*) and lesser snow geese (*Chen caerulescens caerulescens*). Analysis of transcripts for this stage of the *Niska* program brought forth major themes revolving around knowledge sharing, cultural continuity, healing, and a profound connection to the land.

Sharing knowledge

The theme of knowledge was prevalent in all discussions, with participants emphasizing the value of sharing and passing on acquired knowledge to family, friends, and other community

members. This is illustrated by one participant's reflection on generational teaching; she stated:

When I see her standing there, [name omitted], it reminds me of her late mom ... I used to see my grandmother doing that and my mother ... and after they're gone ... now we're here and now we're trying to teach our kids, you know? They like to learn ... after we can pass away, they can do it. (Participant 26, expert)

Similarly, another participant highlighted the importance of knowledge sharing to learn new skills and uphold traditions, expressing, 'My nephews ... they're learning because that's how our late grandmother taught us how ... I was just like, learning. I enjoyed watching them' (Participant 7, expert).

Emphasizing the significance of youth presence during these activities, participants observed generational shifts, with some youth not knowing how to prepare geese. Reflecting on changes, one participant remarked while reviewing her photos (Fig1), 'That's his son there ... he's learning ... a lot of people they don't know how to smoke it or the way how do you cut ... I've been doing this all my life since I was small' (Participant 26, expert).

The act of sharing knowledge was viewed as integral to maintaining health and wellbeing. One participant, who learned plucking at the age of 14 years, recently acquired skills in cooking geese from family. Reflecting on this, she stated:

I just learned it not too long ago... I don't know how to cut smoked geese, but I enjoyed cutting watching my sister and [name omitted] cutting them ... just like traditional life, how like our grandmother and our late mother taught us ... I enjoyed watching them doing their old traditional way. (Participant 7, expert)

These discussions, rooted in health and wellbeing, underscored the paramount importance of intergenerational knowledge transfer.



Photo credit: Participant 26.

Figure 1: A youth participant overlooking an expert while she prepares geese for smoking.

Cultural continuity

The transmission of familial teachings and learning experiences

across generations emerged as a cornerstone for maintaining identity and fostering cultural continuity on a broader scale. Many women engaged in the plucking and preparation of geese noted

that their involvement in these activities dates back to childhood, emphasizing its profound integration into their identity and lifestyle. One participant expressed:

Since I was a teenager, my mom taught me everything. I was in the bush all my life ... we were camping in the bush like hunting goose and all that and making smoked geese ... just watching her, and she made me do it. (Participant 25, expert)

Similarly, another participant recounted learning the art of goose preparation from her grandmother at the age of 8 years, linking this intergenerational exchange to a photo featuring her and her grandson (Fig2) where the grandson is watching her prepare geese, stating, 'Same time teaching them' (Participant 24, expert). Involving youth in these activities was crucial for knowledge transfer, as the teachings are primarily conveyed through visual demonstrations.

The sharing of these teachings was emphasized as crucial for overall wellbeing, as one participant highlighted:

To live a good life, it's just what my mother did ... it's important because my brothers they hunt, and they need family to be there to cut the meat or you know smoke the meat ... Reminds me of my old days ... when I use to do that ... started off with my grandmother ... I used to watch her pluck goose, cutting all the goose, wild meats ... fish or beef or rabbits ... what she usually cooks for the hunt to feed us. (Participant 26, expert)

Moreover, maintaining these values and teachings was seen as an opportunity to achieve wellbeing, with a participant expressing:

I'm doing so good in the bush, like what I've learned from my mom ... I can't say there's more, you know what I mean ... I just have to keep doing what I'm doing ... You just have to follow your steps and what makes you happy. (Participant 25, expert)

Many participants also spoke of the concern about the decline in participation among younger generations, identified as a barrier to wellbeing and overall cultural continuity. This decline limited opportunities for the transfer of knowledge, with participants pointing out obstacles like limited support for hunting supplies and governmental challenges with obtaining gun licenses. Participants highlighted the transformative and healing nature of being in the bush, describing it as a form of medicine for mental wellbeing. While acknowledging these barriers, participants also underscored the strength of social networks within the community as an opportunity to overcome these challenges. They spoke of sharing knowledge and skills, demonstrating the community's strengths with statements like:

I'm always like helping out ... Some people, like out there, they can't even cut fish ... My friends, they ask me to do it for them, so I do it ... You know help out each other ... that's what we do, that's what we need more ... share meat, support each other. (Participant 26, expert)

This communal spirit was evident among women who learned goose preparation methods from family members and others within the community, demonstrating a commitment to sharing knowledge and resources for the sake of cultural continuity and the wellbeing of future generations.



Photo credit: Participant 24.

Figure 2: A youth participant holding a Canada goose while overlooking an expert during the preparation.

Healing

Participants engaged in an exploration of various forms of healing – physical, mental, and spiritual – resulting from their involvement in traditional activities, particularly the preparation of geese. For many, the experience of staying with their loved ones in the bush and collectively participating in activities created a positive space

for healing, as depicted in Figures 3 and 4, where one expert was teaching families at their respective camps to prepare geese.

One participant described the healing dynamics within her family in the bush, emphasizing the transformative nature of the environment:

I love it when we spend [time] together as a family over there. We don't get mad, we don't hate, like yell at each other, it doesn't go like that in the bush. It's so peaceful over there ... The way we are here in Albany, like we scream at each other, and when we go out into the bush, it's not like that. It's different in the bush. (Participant 25, expert)

Participants discussed the importance of continuing their traditional practices, contributing positively to their wellbeing, and providing a fulfilling way of life. Many participants referred to the land as a form of medicine that facilitated healing not only on a physical level but also emotionally and spiritually. A participant expressed:

I'll just say it's like a medication. A medication for us to be on that other side, instead of here, like it's so different. To get away from all the stress, and when you go there it's so different, you got no stress over there, you can hear all the birds singing, animals. (Participant 25, expert)

However, it was acknowledged that not all community members

could access the land due to physical health barriers. For instance, one participant could not participate in the goose preparation process due to illness. The physical limitations of community members underscored the challenges some faced in participating fully. Additionally, emotional barriers were noted, with the land serving as a reminder of departed family members, as expressed by a participant:

I trap rabbits and we trap everything in the bush, even beavers ... My mom taught me how to do that ... It's different now my mom has passed away and my kids, I don't hardly go over there now ... I'm forcing myself to go there more and more. (Participant 25, expert)

Despite these barriers, there was common agreement among the women that the benefits of engaging with the land were substantial, emphasizing the importance of the land to wellbeing. This discussion highlights the intricate relationship between traditional activities, the land, and the holistic healing experienced by the participants.



Photo credit: Participant 2.

Figure 3: Two experts and one youth participant preparing geese for smoking.

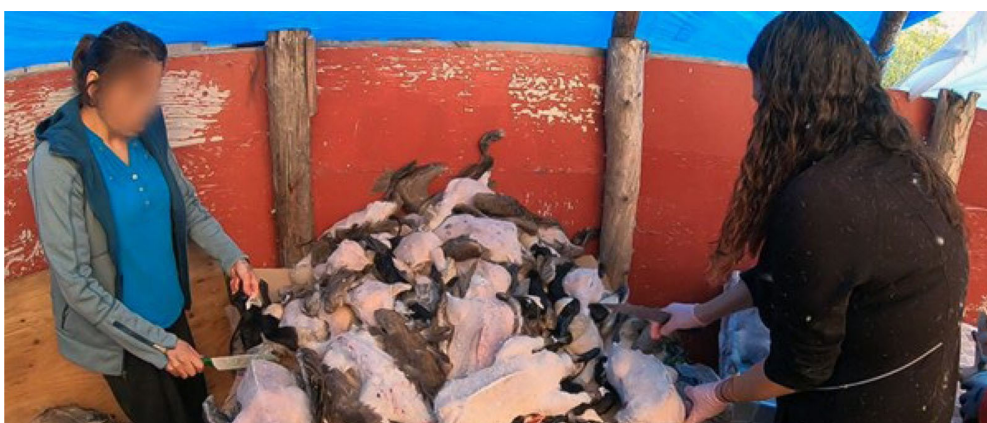


Photo credit: Participant 2.

Figure 4: An expert preparing geese for smoking with her family member.

Land

The significance of the land emerged as a central theme in the conversations about geese preparation activities and overall wellbeing. For some participants, the land represented more than just a physical space; it was an extension of their home, carrying

positive associations and a profound sense of peace and tranquility. As one participant stated:

We have a camp over there, that's why I call it back home ... Because there's a place for us over there, there's cabins over there. We just use a four-wheeler to go over here ... That's our

second home, a place to find peace. Everything goes away, your mind clears up. (Participant 26, expert)

The year-round engagement with the land, particularly through activities like hunting, held great importance for their overall wellbeing, as stated by one participant: 'Going out hunting ... Every year we do that. Our camp is over there, and we go out there, to go spring or fall moose hunting, anything, every season we go' (Participant 25, expert). The participant further expressed a holistic connection with the land, stating:

For me, for my well-being is, everything ... I walk around, I trap, I like everything. I can do everything that I want to do in the wild ... I prefer going to the bush more instead of staying here ... I like being in the bush; it's so peaceful ... eating those kinds of wild meat. I love staying there, that's what I call the other side, instead of in this village, really peaceful. You can eat everything in the bush ... you don't starve in the bush ... Here in the town all you eat is like white meat and all that, and we buy them at the store ... Back home, that's what I call it, back home in the bush, it's really like, I don't know, it's so peaceful. I just love it, the way I was raised from the bush, and also, I raised my kids in the bush too, and they love being over there too, and we like everything in the wildlife. (Participant 25, expert)

For many, the land served as a reminder of traditional teachings, shaping their cultural identity and lifestyle. These teachings, integral for cultural continuity, also played a crucial role in sustaining them with nutritious food. Participants identified the act of providing nutritious wild meat for their families as not just a practical undertaking but an opportunity for their wellbeing. As one participant shared:

I'm happy I'm doing this for my grandkids, to feed, to learn ...

How to eat the wild meat ... 'cause I see lots of kids they don't eat wild meat ... I start eating wild meat when I was young, cause my grandmother use to make me juju bottle with the gravy in it, goose gravy ... So, I remember I used to like goose. (Participant 26, expert)

Another participant emphasized the communal aspect, stating:

A lot of people in here they don't have no boats, or you know the stuff for hunting ... They can't hunt ... Other people hunt and it's good when they share their meat too, to feed the family. 'Cause my brothers always do that when they kill moose; they share. (Participant 25, expert)

Sharing the harvest with family and community members emerged as a fundamental teaching in the Omushkego Cree culture, especially with Elders and those unable to participate actively in the harvests. Additionally, participants highlighted the importance of utilizing all parts of the geese to minimize wastage, citing examples such as making blankets from feathers. As one participant explained:

I like going there in the springtime 'cause I like the way the geese come and land when you kill them. It's so exciting. So, I don't know, it feels good knowing that there's food coming ... The feathers we make blankets [Fig5] ... Even in the old days my mom used to make ... Mostly people make blankets and sell those blankets ... They cost lots to make those when you sell one blanket, king size, it costs maybe \$800 ... When you use real feathers, but not wet feathers. Different kind of feathers ... The underneath ones, those soft ones, that's what we use, and we make a blanket out of them ... That's why we save those kinds of feathers. People save them. I know how to make blankets too; my mom taught me how. (Participant 25, expert)



Photo credit: Participant 25.

Figure 5: An expert and a youth participant, both from the same family, collaborate in the preparation of geese, including feather removal and cleaning of the internal organs.

Discussion

The *Niska* (goose) program was a program designed not only to revitalize community harvesting activities but also to forge

meaningful connections between youth and on-the-land experts, all while addressing the decline in Indigenous knowledge transfer within the community. The benefits derived from goose harvesting, as evident from the discussions, encompassed increased opportunities for knowledge transfer within the community and the provision of a culturally important, nutrient-rich food source. Expanding these opportunities, especially for women, would not only help to address current issues of food insecurity but also support the transmission of intergenerational knowledge, encouraging a renewed connection with culture among the youth.

Within the core of this program, a deliberate focus on goose preparation has been instrumental in recognizing the often-overlooked experiences of women⁵, contributing to a more nuanced understanding of health and wellbeing from the unique perspective of First Nations women. Through the discussions, participants shared valuable insights into the positive effects of engaging in geese preparation activities on subjective wellbeing. Their narratives revealed numerous contributing factors, intricately linked to the subsistence lifestyle that has shaped the social structures of the *Omushkego* Cree culture. Despite the disruptive forces of colonization and the residential school system, women persist as integral community members and cultural educators⁵, as they are important knowledge holders¹. Indigenous learning, deeply rooted in daily observations and activities embedded in family life, has proven resilient against attempts to erode cultural practices²¹. This resilience is a compelling reason why women embraced participation in goose preparation, viewing it as a means to draw closer to their ancestors, family members, and other community members. Notably, participants highlighted more positive interactions in natural settings compared to within the built community, emphasizing the pivotal role of engaging in traditional activities in fulfilling responsibilities and setting examples for healthy behaviors, thereby contributing to cultural continuity for future generations. This social cohesiveness, integral to many Indigenous cultures, has faced challenges over the past century due to colonization^{2,8,9}.

The disruptive impact of colonization, manifested through systematic disruptions like residential schools and the suppression of languages and cultural practices, not only altered Indigenous ways of life but also displaced communities from their homelands and identities, with far-reaching effects observed throughout subsequent generations^{2,21-24}. Acknowledging these historical traumas is paramount for programs addressing wellbeing to navigate the social dynamics within communities and comprehend the impacts of individual and collective trauma²¹. In this context, the current and broader *Niska* program⁷ brought together generations of Cree on the land for traditional activities, facilitating the reclaiming of language, identities, and culture, thus contributing to the restoration of disrupted social structures.

Teaching on the land is essential for preserving the Cree language within the community. This approach, often linked to activities like geese harvesting, establishes a unique environment where Elders and experienced community members predominantly use Cree when teaching. This ensures the active transmission of linguistic knowledge to the younger generations. Children, engaged in hands-on experiences, turn the land into a classroom, learning while participating in continuous Cree conversations. This interactive learning fosters a deep connection between language and cultural practices, significantly contributing to Cree language retention within the community, a theme discussed extensively in

various studies^{1,6,7,10}.

Amid the challenges faced, many Indigenous communities, resilient and determined, have preserved teachings and connections to the land. Participants in the program underscored the significance of harvesting, preparing, and sharing traditional foods as a means to preserve cultures impacted by colonization. The continuity of these cultural practices, as evidenced in the program, has been linked to elevated health status and overall wellbeing in other similar studies^{11,21,25-27}. Participants emphasized the lesser desirability of store-bought foods compared to traditional ones, citing lower nutritional content and quality in processed items, as highlighted in other studies^{10,26,28,29}. Traditional foods, such as goose, were identified as rich sources of essential nutrients like protein, vitamin B12, iron, and zinc^{13,26}, contributing significantly to overall health and wellbeing. In the broader context, participants expressed the intrinsic need to engage in traditional practices, emphasizing the role of these activities in staying physically and cognitively engaged in family and community life, and underlining their impact on personal wellbeing.

The decline in the frequency of consuming traditional foods has been correlated with an increased prevalence of obesity, type 2 diabetes, and cardiovascular disease among First Nations in Canada^{12-14,26,30}. Recognizing physical activity as a crucial aspect of wellbeing, participants highlighted the engaging nature of traditional activities, including the preparation of traditional foods. Factors contributing to the decline in participation encompassed insufficient resources, declining use of Indigenous languages, a general lack of skills or time, and environmental changes due to economic development and climate change, as seen in previous studies^{6,7,10,15}. Participants discussed how factors like the lack of resources and time impacted their frequency of consuming traditional foods. The identified benefits to spiritual, cultural, emotional, and physical health and wellbeing highlight the need to develop programs focused on increasing the availability and consumption of traditional foods.

Future programs and research must consider the vital roles of Indigenous women in communities, including collective meal preparation and the creation of positive environments integrating traditional food practices. A study by Neufeld et al²¹ has shown that applying these factors to programs aimed at Indigenous women, particularly those in urban settings, can yield dramatically positive effects on health and wellness. These factors reinforce concepts of food sovereignty and self-determination, playing a crucial role in maintaining traditional food practices and aiding in the re-establishment of social structures and cultural practices such as Indigenous language, thereby contributing to local food systems²¹. The impacts of goose preparation and other traditional activities on Indigenous women illustrate the depth and extent to which culture and the relationship with the land impact health and wellbeing.

While the findings from this research may offer transferable insights to other communities, it is imperative to acknowledge the diversity among Indigenous populations, particularly regarding present social structures and historic events unique to each community. A nuanced understanding of the complex and interrelated challenges and strengths faced by Indigenous and marginalized populations is vital for developing sustainable programs and interventions. The potential global applicability of

the *Niska* (goose) program, beyond addressing issues of overabundant and invasive species and food security, underscores its significance in providing not just tangible benefits but also cultural advantages to communities on a global scale. The program, in its entirety, represents a comprehensive approach that intertwines cultural revitalization, community engagement, and holistic wellbeing, emphasizing the need for holistic interventions that go beyond addressing immediate challenges to create enduring positive impacts on Indigenous communities.

Limitations

One limitation is related to the restricted sample size. This limitation stemmed from the inherent scarcity of on-the-land experts and individuals with the necessary knowledge. Additionally, the COVID-19 pandemic led to the cancellation of numerous face-to-face meetings, necessitating the adoption of remote communication as a viable alternative.

Conclusion

Drawing from the insights shared by Indigenous women in this study, it is evident that traditional activities, particularly the preparation of traditional food, yield benefits that extend beyond mere sustenance and the management of overabundant species. The communal process of preparing and sharing geese not only

fosters social cohesiveness within the community but also serves as a vital means for cultural continuity, ensuring the transmission of Cree knowledge and skills. Employing methods like photovoice emerges as a crucial means for amplifying the voices of women, often marginalized, or silenced, enabling them to articulate their experiences and perspectives regarding systemic challenges faced by the community. To enhance the depth of understanding, future research should prioritize the inclusion of more female youth participants. This approach holds the potential to unveil and address specific barriers and challenges faced by this demographic while identifying their unique strengths, thereby fostering increased cultural and social engagement within the community.

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Conflicts of interest

The authors declare no conflicts of interest.

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