JOURNAL OF COMMUNITY SYSTEMS FOR HEALTH
2025, VOL. 2
https://doi.org/10.36368/jcsh.v2i2.1284

ORIGINAL RESEARCH

Adapting an Indigenous child health measure for Inuit children in Iqaluit, Nunavut

Nancy L Young[1,2*], Victoria Madsen[3], Mylène Michaud[1], Atiqa F Pirwani[1]

[1]CHEO Research Institute, Ottawa, ON, Canada
[2]Faculty of Medicine, University of Ottawa, Ottawa, ON, Canada
[3]Inuusivut Mental Health and Addictions, Government of Nunavut, Iqaluit, NU, Canada

***Corresponding author:** nyoung@cheo.on.ca

Received 30 September 2025; Accepted 2 February 2026; Published 24 February 2026

Abstract

Introduction: Culturally appropriate assessment is vital for learning health systems; however, few such tools for Indigenous children exist. In 2011, Indigenous health leaders and scientists collaborated to create the *Aaniish Naa Gegii*: the Children's Health and Well-being Measure (ACHWM) for Indigenous children aged 8 to 18 years. It was adapted for Inuit in Ottawa and named *Qanuippit*. The Government of Nunavut (GN) expressed interest in integrating the *Qanuippit* territory-wide. This study aimed to adapt the Ottawa Inuit version for Nunavut, to ensure they had a valid wellness measure to guide community-based health services planning for Inuit children in Iqaluit.

Methods: We used a mixed-methods approach to consider the full spectrum of health, from wellness to illness. All data gathered was governed by *Inuit Qaujimajatuqangit* (IQ) principles. We consulted eight Iqaluit-based experts in Inuit education, culture, and children's health to ensure cultural relevance and identify any missing content. In February 2024, interviews were conducted by the local mental health team, with 15 Inuit children (7.7 -17.9 years). Each child completed the draft of the *Qanuippit* that resulted from the Expert review, and local mental health workers examined the children's understanding of each item. The analysis focused on items with critical input from two or more participants. Once finalized, a pilot implementation study explored how mental health workers integrated the *Qanuippit* in practice.

Results: Experts reported eight items of concern; one had a clear solution, and the remaining seven were identified for monitoring. Children identified 11 problematic items; two had clear solutions, while consultation continued for the remaining items. Mental health workers reported that the tool was a positive, strengths-based experience. The *Qanuippit* aided in forming connections with clients, which positively impacted their practice.

Conclusions: The *Qanuippit* has proven to be a good fit to assess the health and well-being of Inuit children in Iqaluit.

Keywords: Inuit children, Indigenous, well-being, wellness, measure, data sovereignty.

Abstract in Español at the end of the article

INTRODUCTION

Approximately 5% of Canada's population self-identifies as Indigenous[1], comprised of First Nations (60.1%), Métis (35.8%), and Inuit (4.0%) [1]. Indigenous people represent the fastest-growing segment of the Canadian population [2,3]. The literature on the health of Indigenous peoples has focused primarily on indicators of disease burden, such as tuberculosis, mortality, and suicide rates, and has produced a picture of illness rather than wellness [4].

Inuit children's wellness

This paper focuses on Inuit children. There are 70,000 Inuit people in Canada, and 69% live on their traditional homeland of Inuit Nunangat [5]. Approximately 33% of Inuit are children under 14 years of age [3]; much higher than the 15% of Canadians who are under 14 years of age [6]. There is minimal literature specific to

Inuit children, which is one of the critical reasons for this project. What we know from the literature about Indigenous children's health is that this rapidly growing population faces unique health challenges, for example, high rates of suicide [7], lack of available mental health services [7], high prevalence of chronic conditions [8], poor nutrition, and high rates of substance use [9].

Among Inuit youth in particular, suicide rates have been deemed to be higher compared to youth in Canada [7,9]. Specifically, among Indigenous youth as young as 15, the suicide rates were 11 times higher in Inuit communities in comparison to the non-Indigenous population [10]. There are many links to the increase in suicidality, including social exclusion. Social exclusion is detrimental as denying equal access to opportunities and resources prevents individuals from fully participating in society. For example, communities that are farther away from urban centers and basic services [11], such as most Inuit communities, create an inaccessibility [10] and a substantial barrier to accessing health care [11]. Additionally, the lack of culturally relevant mental health services [7] compounds the impact.

Inuit child health statistics have been generated, primarily, using health care delivery information (e.g., rates of diagnoses, hospitalizations) and from surveys conducted by the National Inuit Suicide Prevention Strategy [12] and Statistics Canada [13–16]. Other surveys exist, such as the International Polar Year and Nunavik surveys, but they focus on adult populations. The prevalence of chronic conditions, including chronic respiratory illnesses, overweight/obesity, and diabetes [17], is higher among Inuit children[9]. We also know that Indigenous children experience gross inequities in health [18], such as limited access to health care [19–23], compared to their peers [23,24].

The consolidation of the sources cited above [19,23,25–29] paints a picture of Inuit health that demands action. While illness occurs at the individual level, wellness happens in communities, societies, and nations[30]. Since most Inuit communities deliver health services at the local level, detailed information about the local population is necessary to guide appropriate service planning and funding allocations. An efficient mechanism for collecting local child health data does not exist. While health indicator data are helpful to "raise questions, [they] do not usually provide direct answers" [31]. More detailed local health information is needed from children if we are to identify solutions. This approach is consistent with the Many Hands One Dream Summit [32] recommendations to ensure solutions come from within the community [33]. This allows for the development of relationships and opportunities to engage with communities. This approach is rooted in First Nations experiences, yet also has the potential to empower Inuit communities. Empowerment and self-determination are strongly linked to improved community wellness [34].

Development of an Indigenous child health measure

In 2011, researchers at Laurentian University collaborated with the *Naandwechige*-Gamig *Wikwemikong* Health Centre, in what is now known as *Wiikwemkoong* Unceded Territory, to co-create a culturally appropriate measure for Indigenous children aged 8 to 18 years. Consistent and extensive consultation with the community, including Elders and Indigenous health leaders, through the utilization of culturally grounded methods, was a critical component of the development process. This included a photovoice activity, where children took pictures of what health meant to them, and then shared them with the group. The intent was to develop a measure that would be able to assess and track the health and well-being of Indigenous children in communities across Turtle Island [35] and reflect the unique conceptualizations of health and wellness that occur when using an Indigenous lens. The framework for the measure came from Medicine Wheel teachings that were shared by an Elder in *Wikwemikong* to provide a (w)holistic approach. The items reflect the four quadrants of health: spiritual, emotional, physical, and mental (intellectual) [35]. The measure is tablet-based, which helps engage children and youth in a non-judgmental way while supporting and empowering them to share their perspectives on wellness. Initially named the Aboriginal Children's Health and Well-being Measure (ACHWM), the measure was gifted a name by the children of *Wiikwemkoong* on January 31st, 2014: "*Aaniish Naa Gegii*" meaning "how are you" in *Anishi-naabemowin*.

In 2014, the co-creation process continued with the inclusion of other First Nations, an Indigenous child wellbeing organization, and an Inuit organization. The Inuit organization was the Ottawa Inuit Children's Centre (now *Inuugatigiit* Centre for Inuit Children, Youth and Families) [36]. An Ottawa Inuit version was co-created with leaders, children affiliated with this centre, and academic partners. It was gifted an Inuktitut name: *Qanuippit* or ᖃᓄᐃᑉᐸᑦ [36,37]. Subsequent collaborative research studies have established the validity [38,39], reliability [40], sensitivity and specificity of its integrated screening component [41], and its item behaviour [42]. The ACHWM has a consistently understood version[36] and has published norms from a secondary analysis [4]. Many Inuit children reside in Nunavut, which has distinct cultural nuances and context from Ottawa, and it was recognized that more research was required to adapt the Ottawa version of the *Qanuippit* for Inuit children living in Iqaluit, Nunavut.

This study was a joint initiative between the Government of Nunavut Department of Health and the Children's Hospital of Eastern Ontario Research Institute (CHEO RI). The overall questions that guided this study were:

- Is the *Qanuippit* relevant to Inuit children in Iqaluit, Nunavut?
- What revisions are necessary to improve the fit for

Inuit children in Iqaluit, Nunavut?

- Are any items missing that are essential to meet the needs of children in Iqaluit, Nunavut?

METHODS

The Inuit *Qaujimajatuqangit* (IQ) framework [43] was followed throughout the study. This framework encompasses laws and principles that are implemented and encompass the Inuit life experience and its importance in partnership and collaboration [43]. The IQ framework highlights concepts such as *Pilimmaksarniq*, gathering information to better understand methods and improve society, and *Qanuqtuurunnarniq*, evaluating procedures and resources to adopt innovative problem-solving and flexible critical thinking, which supports the ACHWMs' common goal and willingness to learn together [44].

We applied a mixed methods design to adapt the Ottawa *Qanuippit* to better suit the context of Nunavut. This study used a 3-step design: (1) expert evaluation, (2) assessment with children, and (3) pilot testing.

STEP 1: EXPERT EVALUATION

The aim of this first step was to ensure the items included in the Ottawa Inuit version were culturally and geographically appropriate in the context of Inuit culture in Iqaluit and to identify any potential missing concepts important to children's well-being.

Participants

We sought to include perspectives from a diverse group (5 to 8) of experts, who were recruited by the local team in Iqaluit. Experts were contacted directly via email or phone at their offices by a member of the Government of Nunavut (GN) Mental Health team, and they were provided with an honorarium of $150 to thank them for their time and knowledge sharing.

Materials and procedure

The source document used for this step was the *Qanuippit* version that was developed with Inuit in Otawa in 2014. This version contained 62 questions with a Likert-type response scale, plus one global health rating question, and three open-ended questions.

We provided each expert with paper copies of the Otawa *Qanuippit*, in English and Inuktitut, and we asked them to identify items that needed to be reframed or added. The experts reviewed the items one at a time with an interviewer from the local research team and were encouraged to offer verbal or written feedback. Our analysis focused on the items with critical input from 2 or more participants, as set out a priori.

STEP 2: ASSESSMENT WITH CHILDREN

This step built on the results of step one to address all three research questions from the perspectives of children, youth, and guardians/caregivers: Is the *Qanuippit* relevant to Inuit children in Iqaluit? What revisions are necessary to improve the fit for Inuit children in Iqaluit? Are any items missing that are essential to meet the needs of children in Iqaluit?

Participants

The local research team recruited children between the ages of 8 and 18 years in Iqaluit with a minimum sample size of 10 participants. Most were recruited in collaboration with members of the local mental health team. Caregivers were also invited to participate; however, these have typically been harder to engage.

In addition to our Research and GN team members, we recruited seven Mental Health and Addictions (MHA) staff from the Greenstone building in Iqaluit, who were divided into two groups: interviewers and note-takers.

Materials and procedures

The 2015 version of the *Qanuippit* (adapted for Inuit in Ottawa), was modified based on the results of Step 1. This revised version was presented to each participant in Iqaluit on an Android tablet. Paper copies of the measure were provided to the note-takers.

Staff at the local mental health centre in Iqaluit received virtual training from the research team from the Children's Hospital of Eastern Ontario Research Institute (CHEO RI). This training reviewed the development of the Aaniish Naa Gegii, including the adaptation of the Ottawa *Qanuippit*. The presentation also reviewed Step 1 of the research and highlighted the experts' feedback. In-person training was carried out with the team in Iqaluit, the day before our knowledge gathering step. This training aimed to provide local staff with the knowledge to carry on and continue to train new staff.

Knowledge gathering was conducted on two separate days. On the first day, an event was held at the local Mental Health Centre in Iqaluit. Children who volunteered to participate in the cognitive debriefing took part in activities (beading, colouring, storytelling with an Elder) and enjoyed a hot meal while awaiting their turn. Written parental/caregiver consent was obtained before seeing each child. The research team was present to answer any questions the parent/caregiver or child might have had. Children were seen individually by an interviewer and a note-taker from the local mental health centre. Children were asked by the interviewer about reading problems (difficulty reading the word), concept problems (understanding the item), and wording problems (if another word could be used) while going through each item one at a time on the tablet. The note-taker's role was to write down on paper copies what the child would say about each item and record their answer to the item on the 5-point Likert scale.

On the second day, knowledge gathering was completed at a local group home for youth; a community-based housing facility. The group home manager signed consent forms for children under 14 years old (territorial age of consent), and written consent was obtained directly from youths over 14. Again, a note-taker and an

interviewer from the local mental health centre took part in the one-on-one cognitive debriefing with the youth. At the same time, other team members played games (cards and beading) and shared food with the remaining youth awaiting their turn.

We reviewed all the feedback on the items and focused our attention on items that were identified as a concern by two or more participants, as we did with our analysis in Step 1.

STEP 3: PILOT TESTING

The GN identified the need to pilot test the *Qanuippit* with children (aged 8 to 18) in Iqaluit to understand the training requirements better and test the implementation plan in practice.

Participants

Mental health nurses and MHA staff completed an online survey comprising of several questions regarding how their experience with the *Qanuippit* impacted their practice, following the *Qanuippit* implementation with a child or youth. We used a REDCap server, which is a secure web-based application designed exclusively to support data capture for research studies [45].

Materials and procedures

The modified *Qanuippit* from Steps 1 and 2 was presented on an Android tablet to children. Participating mental health staff were given a paper copy of the feedback survey they were to complete, as well as an online link to that REDCap survey to capture their thoughts after completing the *Qanuippit* and debrief conversation with their client.

Staff invited their regular clients to complete the *Qanuippit*. The staff also provided detailed feedback on the process in the context of various service organizations in Iqaluit.

Table 1. Feedback from experts.

Item	Item description	No. of experts with concerns	Nature of concern	**Solution/Decision **
13	I see the beauty in nature	3	"In nature" is not an Inuit term. Multiple referrals to "on the land" instead	Reworded "in nature" to "on the land"
27	I make choices that send me on a good path in life	3	Consensus was that "good path" is too complex. Consider adding examples	Wait defer to children
4	I feel bullied	2	"Feel" is more doubtful. I "get" bullied or I "am being" bullied are more action-oriented	Wait defer to children
5	I make healthy choices	2	Health is too broad (Health? Relationships? Food?) One suggested "good/healthy choices" instead	Wait defer to children
28	I stay home from school	2	Difficulty with wording. Suggesting "skipping school" instead	Wait defer to children
35	I take time to learn our Inuit language	2	Change to "Inuktitut". Concept of "making time" instead of "taking time"	Wait defer to children
40	I feel like ending my life...	2	Abrupt question, possibility of planting seeds in younger children	Wait defer to children
59	Knowing about our traditional practices is... (For example: country food, Inuit home remedies, lighting the qulliq)	2	Challenging for younger kids. Consider rephrasing as "I want to know..." and having yes or no answer. Consider including harvesting, making tools/clothing	Wait defer to children

Ethics and consent

An advisory committee, which included an Elder, youth, health council representatives, school representatives, justice representatives, family service representatives, local Inuit-based organizations, and a researcher in the field, provided oversight and guidance for our research program at regular intervals. Community consultation sessions were held throughout the process, engaging the broader community. Participants in these sessions contributed to the approval of the revised version of the ACHWM.

The research team followed standard ethical principles and complied with guidelines for ethical research, the CIHR Guidelines for Health Research Involving Indigenous People, and the Tri-Council Policy Statement (TCPS-2) on Ethical Conduct for Research Involving Humans. Ethics approval was obtained from Laurentian University (6021046) and the CHEO Research Institute (22-28x). This collaborative research project additionally included a research agreement between the CHEO RI and the Government of Nunavut.

RESULTS

Step 1: Expert Evaluation

A total of seven individual interviews were completed, plus one interview with a pair of participants. In addition, members of the Nunavut Research Institute reviewed the items and were included in the analysis. The experts identified a mean of 8.4 items with concerns. However, one expert identified 37 items (60%) and was considered an outlier. Our analysis focused on seven respondents, excluding the outlier. In the remaining sample, each participant reported a mean of 4.9 [median =5.0] concerns. There were 21 items with concerns from one expert, 6 items with concerns from two experts, and 2 items with concerns from three experts. Eight items met this criterion and are presented in Table 1. The experts' feedback resulted in one item (n=13) being reworded. The other seven were to be monitored closely during cognitive debriefing.

Step 2: Assessment with children

A total of 15 children (7.7 to 17.9 ; mean age = 14.1 years) volunteered and participated in the study: 11 at an event we hosted at the local Mental Health Centre (Greenstone building) in Iqaluit and four at a group home the following day. Nine children identified with she/her pronouns, four with he/him, one with they/them, and one who preferred not to say. No caregivers volunteered to participate. We identified 27 items with one or more comments and 11 items that two or more children identified as a concern. The 11 items that were the focus of our analysis are presented in Table 2. After further evaluation, clear solutions were identified for 2 items, one of which is not computed in the total score of the measure. No clear solutions were identified for the other items that raised concern; thus, we decided to create a list of items to monitor in the future.

Step 3: Pilot testing

A total of six mental health staff were trained: two mental health counsellors, two youth facilitators, and two mental health nurses. Although six mental health staff were trained, only three completed the *Qanuippit* with a client and provided their feedback on the measure, which we reviewed. All reported that the tool was a positive, strengths-based experience, it gave them a better understanding of their clients and helped them discover something new about their clients. It was not time-consuming and helped them connect with clients. The impact on their practice was favourable. Finally, the mental health staff suggested that the measure may serve as a communication tool for Inuit children and support local data gathering to inform local service planning.

DISCUSSION

Our study aimed to culturally adapt the Ottawa version of the *Qanuippit* for children aged 8 to 18 living in Iqaluit. The adaptation took place from 2023 to 2025. The primary outcomes included the identification of specific terminology that is a better fit for children living in Iqaluit, as well as insight and confirmation of the utilization of the *Qanuippit* in mental health settings in Iqaluit.

Culturally appropriate measures of health that consist of relevant terminology are required. Patient-centred care includes cultural competency, which means cultural differences in beliefs, traditions, and norms are considered when analyzing health behaviours, as we cannot effectively address existing health challenges without consideration for culture [46]. Speaking and understanding Indigenous languages has been deemed to be very important by Inuit peoples [11], underscoring the importance of incorporating local languages. Health behaviours and symptoms may be misinterpreted when Western frameworks are applied without cultural adaptation. This can result in misdiagnosis or a missed opportunity to provide support, emphasizing the importance of having the *Qanuippit* as a readily available, culturally-adapted measurement tool.

Additionally, the shortage of mental health services [19–23], including access to timely and appropriate care for children experiencing mental health crises, is limited. The *Qanuippit*, aims to rectify this by providing safe and easily accessible communication paths, which was confirmed by mental health staff in Iqaluit. The measure is free and easily accessible to the community. In addition, the measure provides immediate results in a balance chart and indicates whether a child or youth is at risk and/or in need of support. This quick turnaround aims to address the matter of delayed follow-ups, as well as provide further opportunities for community-led actions. The *Qanuippit* is a strength-based assessment that allows children to share their stories while providing access to resources, such as referrals to community services, if needed. Supporting youth resilience was one of the commitments we aimed to respect in the

Inuusivut Action Plan 2017-2022. Most measures are deficit-focused; they focus on aspects such as symptoms, diagnosis, or dysfunctions. Although helpful, strength-based measures focus on building confidence and self-esteem as they highlight children and youths' abilities and capabilities. In that sense, focusing on strengths emphasizes what they can do, which can encourage youth and children to commit to and engage in treatment.

Table 2. Feedback from children.

**Item **	**Item description**	**No. of children with concerns**	**Nature of concern**	**Solution/Decision**
64	What cultural activities do you do?	4	Children wanted examples of "cultural activities"	Revised: Added examples (e.g., hunting, sewing, other)
53	I worry about getting enough to eat	3	Item misread by one child. Another child was looking to simplify the wording	Revised: I worry about having FOOD to eat
37	I feel encouraged by my community (they believe in me)	3	Problems with the concept of "encouraged"	No change as no solutions identified Monitor
47	I miss doing things that used to be fun	3	Item not clear among younger children	No change. May need a cue card. Monitor
22	I am grateful for what I have	2	Inconsistent concerns: One had an issue with grateful One issue with "I have"	No change as no solutions identified Monitor – Staff suggested we consider "thankful"
59	Knowing about our traditional practices is... (For example: country food, Inuit home remedies, lighting the qulliq)	2	2 concerns with the word "remedies"	No change as no solutions identified Monitor
63	What do you do to stay active?	2	2 concept problems with "staying active"	No change as no solutions identified Monitor
0	How would you describe your health this past month?	2	Inconsistent concerns: One: What is the meaning of "health?" One was unsure if this meant mental vs physical health	No change as no solutions identified
6	I enjoy exercise	2	Inconsistent concerns: One issue with "exercise"; One issue with "enjoy"	No change as no solutions identified
18	I hurt other people when I am upset or angry	2	Inconsistent concerns: One was confused by "hurt"; One questioned if hurt meant verbally or physically	No change as no solutions identified
41	I get so worried that I feel it in my body	0 (staff member)	Issues with wording of the item identified by one staff member	No change -not supported by any children

The *Qanuippit* provides community leaders with an efficient opportunity to gather local data and offers children a chance to initiate difficult conversations, in a good way, with their care providers, which is a novel addition compared to other Western health and well-being measures. Additional measurement instruments have been developed for Indigenous populations; however, those adapted from the original ACHWM , which now includes the *Qanuippit*, have been reported to have specific characteristics that are vital for implementation within Indigenous youth communities, and for measuring wellbeing [47]. These characteristics include being developed with and for Indigenous children and youth, relational strength-based constructs, an electronic self-report that provides real-time results, valid and reliable for Indigenous populations, and being useful in

identifying wellbeing and risk level [47]. Through co-collaboration, the development of Indigenous measurement instruments ensures that relevant viewpoints are represented and reflect their own views of their well-being [47]. The *Qanuippit* aims to empower communities and emphasize self-determination, which are strongly linked to improved community wellness [34].

Limitations

Some limitations need to be considered in framing the results of this study. A primary limitation of the pilot study was low participation amongst local health staff in Iqaluit. Of all six mental health nurses and/or staff who were eligible to participate in the study, only three were able to complete the measure with a client and provide feedback on their experience, thus limiting our results. We studied the implementation within the context of their current practice, and only those staff who had client appointments with children could be included, during the week that we gathered this information. In addition, some clients did not show up, which was beyond our control. However, the feedback we received from the three local health staff members was rich and informative, and it provided our team with sufficient information on the use of the *Qanuippit* in Iqaluit mental health settings.

Additionally, staff turnover is a limiting factor in terms of implementation. In Iqaluit, factors such as cost of living and burnout impact the longevity of staff who remain on site. In turn, this disruption in programs and therapeutic relationships impacts patients' trust and ability to obtain mental health support[48]. Another factor that impacted implementation was the unstable Wi-Fi, which prevented the uploading of the results.

Conclusion

The study created a measure that the Inuit call *Qanuippit* that fits with the culture and lexicon of Inuit children in Iqaluit. The combination of feedback from local experts and Inuit children provided a few considerable differences from the Ottawa *Qanuippit*. Although there were changes to the measure, we believe that the validity of the original version has been maintained. Mental Health workers in Iqaluit integrated the *Qanuippit* in their practice with Inuit children, which yielded positive reviews. The resulting version is now ready to share with the other communities throughout Nunavut. With the help of a process manual our team helped create, the GN can now train their staff and implement the measure how they see fit. The *Qanuippit* may aid in conducting local conversations with children who have difficulty verbalizing their feelings and/or face barriers to accessing mental health providers in Nunavut.

DECLARATIONS

AI utilization

None.

Competing interests

The authors report no conflicts of interest.

Funding

This research was supported by a research grant from the Canadian Institutes of Health Research (CIHR) Pathways to Health Equity for Aboriginal People – Implementation Research Team Grants – Component 3 (PRT-168023). The project's title was: Listening to Children's Voices - Promoting Indigenous Mental Wellness [I aM Well].

Author contributions

NLY and VM contributed to the conception and design of the study. NLY, VM and MM were responsible for knowledge gathering. NLY and MM conducted the analysis, and NLY, MM, and AFP interpreted the results and drafted the manuscript. NLY, VM, MM, and AFP critically revised the manuscript. All authors read and approved the final version to be published and agreed to be accountable for all aspects of the work, in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Data availability

The data supporting this paper are shared between the Government of Nunavut and the CHEO Research Institute. The data are not publicly available.

Acknowledgements

We are grateful for the active engagement of Inuit children, who provided their perspectives on the *Qanuippit*. We also acknowledge the support of several Inuit (including one Elder and the Nunavut Research Institute) with expertise in education and children's health in Iqaluit, who reviewed the initial version of the *Qanuippit*. We are grateful for all the support from the ACHWM team and the mental health and addictions staff in Iqaluit (including several local counsellors, mental health nurses, youth outreach facilitators, and local leaders) who supported this project, engaged with children, ensured cultural safety, and provided comfort and wisdom to the children.

ORCIDs

Nancy L Young 0000-0002-1739-3299
Mylène Michaud 0000-0002-0963-8030

ABSTRACT IN SPANISH

Adaptación de una medida de salud infantil indígena para niños inuit en Iqaluit, Nunavut

Introducción: La evaluación culturalmente apropiada es fundamental para los sistemas de salud que aprenden; sin embargo, existen pocas herramientas de este tipo para niños Indígenas. En 2011, líderes y científicos en salud Indígena colaboraron para crear el *Aaniish Naa Gegii*: Children's Health and Well-being Measure (ACHWM) para niños Indígenas de 8 a 18 años. Posteriormente fue adaptado para la población Inuit en Ottawa y denominado *Qanuippit*. El Gobierno de Nunavut (GN) manifestó interés en integrar el *Qanuippit* en todo el territorio. Este estudio tuvo como objetivo adaptar la versión Inuit de Ottawa para Nunavut, con el fin de garantizar una medida válida de bienestar que orientara la planificación de servicios de salud comunitarios para niños Inuit en Iqaluit.

Métodos: Se utilizó un enfoque de métodos mixtos para considerar todo el espectro de la salud, desde el bienestar hasta la enfermedad. Todos los datos recopilados se rigieron por los principios de *Inuit Qaujimajatuqangit* (IQ). Se consultó a ocho expertos con base en Iqaluit en educación Inuit, cultura y salud infantil para asegurar la pertinencia cultural e identificar posibles contenidos faltantes. En febrero de 2024, el equipo local de salud mental realizó entrevistas con 15 niños Inuit (7,7–17,9 años). Cada niño completó el borrador del *Qanuippit* resultante de la revisión por expertos, y los trabajadores locales de salud mental evaluaron la comprensión de cada ítem por parte de los niños. El análisis se centró en los ítems que recibieron aportes críticos de dos o más participantes. Una vez finalizada la herramienta, un estudio piloto de implementación exploró cómo los trabajadores de salud mental integraban el *Qanuippit* en la práctica.

Resultados: Los expertos señalaron ocho ítems preocupantes; uno tuvo una solución clara y los siete restantes fueron identificados para seguimiento. Los niños identificaron 11 ítems problemáticos; dos tuvieron soluciones claras, mientras que la consulta continuó para los ítems restantes. Los trabajadores de salud mental informaron que la herramienta representó una experiencia positiva, basada en fortalezas. El *Qanuippit* facilitó la creación de vínculos con los usuarios, lo que tuvo un impacto positivo en su práctica profesional.

Conclusiones: El *Qanuippit* ha demostrado ser una herramienta adecuada para evaluar la salud y el bienestar de los niños Inuit en Iqaluit.

Palabras clave: Niños inuit, Indígenas, bienestar, salud integral, medida, soberanía de datos.

REFERENCES

[1] Government of Canada SC. Focus on Geography Series, 2021 Census - Canada [Internet]. 2022 [cited 2025 Aug 28]. Available from: https://www12.statcan.gc.ca/census-recensement/2021/as-sa/fogs-spg/page.cfm?lang=E&topic=8&dguid=2021A000011124. Accessed 28 Aug 2025.

[2] Department of Finance Canada. Chapter 6: A Fair Future for Indigenous Peoples | Budget 2024 [Internet]. 2024 [cited 2025 Sep 17]. Available from: https://budget.canada.ca/2024/report-rapport/chap6-en.html. Accessed 17 Sep 2025.

[3] Government of Canada SC. The Daily — Indigenous population continues to grow and is much younger than the non-Indigenous population, although the pace of growth has slowed [Internet]. 2022 [cited 2025 Sep 23]. Available from: https://www150.statcan.gc.ca/n1/daily-quotidien/220921/dq220921a-eng.htm. Accessed 23 Sep 2025.

[4] Wabano MJ, McGregor LF, Beaudin R, Jacko D, McGregor LE, Kristensen-Didur S, et al. Health profiles of First Nations children living on-reserve in Northern Ontario: a pooled analysis of survey data. CMAJ Open. 2019;7:E316–22.

[5] Statistics Canada. Indigenous population continues to grow and is much younger than the non-Indigenous population, although the pace of growth has slowed [Internet]. 2022. Available from: https://www150.statcan.gc.ca/n1/daily-quotidien/220921/dq220921a-eng.htm.

[6] Trading Economics. Canada - Population ages 0–14. 2025 [cited 2025 Sep 23]. Available from: https://tradingeconomics.com/canada/population-ages-0-14-percent-of-total-wb-data.html. Accessed 23 Sep 2025.

[7] Owais S, Tsai Z, Hill T, Ospina MB, Wright AL, Van Lieshout RJ. Systematic Review and Meta-analysis: First Nations, Inuit, and Métis Youth Mental Health. J Am Acad Child Adolesc Psychiatry. 2022;61:1227–50.

[8] Graham S, Muir NM, Formsma JW, Smylie J. First Na-

tions, Inuit and Métis Peoples Living in Urban Areas of Canada and Their Access to Healthcare: A Systematic Review. Int J Environ Res Public Health. Multidisciplinary Digital Publishing Institute; 2023;20:5956.
[9] Inuit Tapiriit Kanatami. Social determinants of Inuit health in Canada [Internet]. 2014 p. 1–46. Available from: https://www.itk.ca/wp-content/uploads/2016/07/ITK_Social_Determinants_Report.pdf.
[10] Hus Y, Segal O. Unravelling suicide and related behaviours in Indigenous youth and young adults in the Canadian context. Neuropsychiatr Dis Treat. 2024;Volume 20:2073–94.
[11] Loppie C. Understanding Indigenous health inequalities through a social determinants model. Natl Collab Cent Indig Health. 2022;6–54.
[12] Kanatami IT. National Inuit suicide prevention strategy [Internet]. Ottawa: Inuit Tapiriit Kanatami; 2016. Available from: https://www.itk.ca/wp-content/uploads/2016/07/ITK-National-Inuit-Suicide-Prevention-Strategy-2016.pdf.
[13] Aboriginal Children's Survey, 2006: family, community and child care. Ottawa: Statistics Canada, Social and Aboriginal Statistics Division; 2008.
[14] Government of Canada SC. Aboriginal Peoples Survey (APS) [Internet]. 2007 Oct. Available from: https://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&Id=3600. Accessed 15 May 2025.
[15] Well-being of the non-reserve Aboriginal population: Initial findings of the 2001 Aboriginal Peoples Survey [Internet]. Available from: https://www150.statcan.gc.ca/n1/pub/89-589-x/index-eng.htm. Accessed 15 May 2025.
[16] Aboriginal Peoples Survey, 2006: Public Use Microdata File (Children and Youth) [Internet]. [cited 2025 May 7]. Available from: https://www150.statcan.gc.ca/n1/en/catalogue/89M0027X. Accessed 7 May 2025.
[17] Sheppard AJ, Hetherington R. A decade of research in Inuit children, youth, and maternal health in Canada: areas of concentrations and scarcities. Int J Circumpolar Health. 2012;71:18383.
[18] Government of Canada; Indigenous Services Canada. Evaluation of the Healthy Child Development Program [Internet]. 2024 [cited 2025 Sep 23]. Available from: https://www.isc.gc.ca/eng/1720810446684/1720810497806. Accessed 23 Sep 2025.
[19] MacMillan HL, Jamieson E, Walsh C, Boyle M, Crawford A, MacMillan A. The health of Canada's Aboriginal children: results from the First Nations and Inuit Regional Health Survey. Int J Circumpolar Health. Taylor & Francis; 2010;69:158–67.
[20] Smylie J, Fell D, Ohlsson A. A Review of Aboriginal Infant Mortality Rates in Canada: Striking and Persistent Aboriginal/Non-Aboriginal Inequities. Can J Public Health Rev Can Santé Publique. 2010;101:143–8.
[21] Adelson N. The Embodiment of Inequity: Health Disparities in Aboriginal Canada. Can J Public Health Rev Can Santé Publique. 2005;96:S45–61.
[22] Kidder KM, Stein J, Fraser JM. The health of Canada's children: a CICH profile. 3rd ed. Ottawa, Ont.: Canadian Institute of Child Health; 2000.
[23] Canadian supplement to the state of the world's children 2009: Aboriginal children's health ; leaving no child behind [Internet]. Toronto (ON): Canadian UNICEF Committee; 2009. Available from: https://unicef.ca/sites/default/files/imce_uploads/DISCOVER/OUR%20WORK/ADVOCACY/DOMESTIC/POLICY%20ADVOCACY/DOCS/Leaving%20no%20child%20behind%2009.pdf.
[24] Moreau E. Conversation, collaboration and change: How a dream for Aboriginal children is bringing organizations together. Paediatr Child Health. 2005;10:536–8.
[25] Ball J. Promoting Equity and Dignity for Aboriginal Children in Canada. Inst Res Public Policy IRPP Choices. 2008;14:1–32.
[26] McIntyre L, Connor SK, Warren J. Child Hunger in Canada: Results of the 1994 National Longitudinal Survey of Children and Youth. CMAJ Can Med Assoc J. 2000;163:961–5.
[27] Katzmarzyk PT. Obesity and Physical Activity Among Aboriginal Canadians. Obesity. 2008;16:184–90.
[28] Che J, Chen J. Food Insecurity in Canadian Households. Health Rep. 2001;12:11–22.
[29] Dumont-Smith C. The Health Status of Canada's First Nations, Métis and Inuit Peoples. Health Council of Canada; 2005.
[30] Naidoo P. A Critical Look at Health. South Afr Fam Pract. 2004;46:5–7.
[31] Health Council Canada. A Citizen's Guide to Health Indicators: A reference guide for Canadians [Internet]. Ottawa: Health Council of Canada; 2011. Available from: https://publications.gc.ca/site/eng/392393/publication.html.
[32] Blackstock C, Bruyere D, Moreau E. Many hands, one dream: principles for a new perspective on the health of First Nations, Inuit and Métis children and youth. Ottawa, Ont.: Canadian Paediatric Society; 2006.
[33] Saylor K, Blackstock C. Many hands, one dream: Healthy Aboriginal children and young people. Paediatr Child Health. 2005;10:523–4.
[34] Chandler MJ, Lalonde C. Cultural Continuity as a Hedge against Suicide in Canada's First Nations. Transcult Psychiatry. 1998;35:191–219.
[35] Young NL, Wabano MJ, Burke TA. A Process for Creating the Aboriginal Children's Health and Well-Being Measure (ACHWM). Can J Public Health. 2013;104:136–41.
[36] Young NL, Wabano MJ, Blight S. Relevance of the Aboriginal Children's Health and Well-being Measure (ACHWM) Beyond Wikwemikong. Rural Remote Health. 2017;17:394–404.
[37] Baker-Anderson K, Young NL, Wabano MJ. Inuit Version of the Aboriginal Children's Health and Well-Being Measure: Qanuippit? Int Socieity Qual Life Res 22nd Annu Conf. Vancouver, Canada: Quality of Life Research; 24.
[38] Young NL, Wabano MJ, Ritchie SD. Assessing children's interpretations of the Aboriginal Children's Health and Well-Being Measure (ACHWM). Health Qual Life Outcomes. 2015;13:1–7.
[39] Young NL, Wabano MJ, Usuba K. Validity of the Aboriginal Children's Health and Well-Being Measure: Aaniish Naa Gegii? Health Qual Life Outcomes. 2015;13:148–56.
[40] Young NL, Wabano MJ, Usuba K. Reliability of the Aboriginal Children's Health and Well-Being Measure (ACHWM). Springer Plus. 2016;5:2082–7.
[41] Young NL, Jacko D, Wabano MJ. A Screening Mechanism to Recognize and Support Aboriginal Children At-Risk: Based on a Child-centric Survey. Can J Public Health.

2016;107:e399-e403.
[42] Barbic SP, Young NL, Usuba K, Stankiewicz E. Rasch Measurement Theory's contribution to the psychometric properties of a co-created measure of health and wellness for Indigenous children and youth. J Clin Epidemiol. 2022;151:18–28.
[43] Tagalik S. Inuit Qaujimajatuqangit: The role of Indigenous knowledge in supporting wellness in Inuit communities in Nunavut. Natl Collab Cent Aborig Health NCCAH [Internet]. 2012. Available from: https://www.ccnsa-nccah.ca/docs/health/FS-InuitQaujimajatuqangitWellnessNunavut-Tagalik-EN.pdf.
[44] Healey G, Tagak A. Piliriqatigiinniq "working in a collaborative way for the common good": A perspective on the space where health research methodology and Inuit epistemology come together. Int J Crit Indig Stud. Queensland University of Technology; 2014;7:1–14.
[45] Harris PA, Taylor R, Thielke R, Payne J, Gonzalez N, Conde JG. Research electronic data capture (REDCap)–a metadata-driven methodology and workflow process for providing translational research informatics support. J Biomed Inform. 2009;42:377–81.
[46] Pilarinos A, Field S, Vasarhelyi K, Hall D, Fox ED, Price ER, et al. A qualitative exploration of Indigenous patients' experiences of racism and perspectives on improving cultural safety within health care. CMAJ Open. 2023;11:E404–10.
[47] Saunders V, McCalman J, Tsey S, Askew D, Campbell S, Jongen C, et al. Counting what counts: a systematic scoping review of instruments used in primary healthcare services to measure the wellbeing of Indigenous children and youth. BMC Prim Care. 2023;24:51.
[48] Cherba M, Healey Akearok GK, MacDonald WA. Addressing provider turnover to improve health outcomes in Nunavut. Can Med Assoc J. 2019;191:E361–4.