# How Indigenous Knowledges and Knowledge Systems are centered in research: An Indigenous-informed realist review protocol

Nikki Hunter Porter, BSN, Thompson Rivers University
*Nicole Burns, MA, Balsillie School of International Affairs
Anita Benoit, PhD, University of Toronto
Josie Auger, PhD, Athabasca University
Raglan Maddox, PhD, University of Canberra
Janet Jull, PhD, Queen's University
Janice Linton, MLS, University of Manitoba
Joanna Nemeth, MLS, Athabasca University
Simon Brascoupé, PhD, Carleton University
Noé Préfontaine, MSW, McGill University
Diane Simon, MPH, Aboriginal Midwife (Mi'kmaw), Association of Ontario Midwives
Tina Lanceleve, B.Ed, Thompson Rivers University
Jaiden Herkimer, BA, Toronto Metropolitan University
Cora Weber-Pillwax, PhD, University of Alberta
Ningwakwe George, BEd, Canadian Mental Health Association
Marcia Friesen, PhD, University of Manitoba
Lisa Bourque Bearskin, PhD, University of Victoria
Melody Morton Ninomiya, PhD, Wilfrid Laurier University

* Corresponding author's address: 67 Erb St. W. Waterloo, ON N2L 6C2. Phone: 985-888-9279

Nicole Burns https://orcid.org/0000-0002-6944-5097
Melody Morton Ninomiya https://orcid.org/0000-0002-0196-3410
Anita Benoit https://orcid.org/0000-0001-9863-0278

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## ABSTRACT

**Background** In Euro-Western forms of research, Indigenous Knowledges (IK) and Knowledge Systems have been misused, devalued, and stolen. Elders and Knowledge Guardians have expressed the need for IK to be protected for future generations and be included in research in a good way.

**Objectives** We aim to disrupt the ongoing dominance of Eurocentric research methodologies focused on Indigenous Peoples by promoting and nurturing rights-based and distinctions-based approaches that center Indigenous ways of knowing, being and doing within the entirety of this research project.

**Methods** This protocol paper describes how we developed an Indigenous-informed realist review process and what the process entails. When conducting our realist review, we will examine papers indicating that IK were centered in research. Our iterative process is shaped and guided by IK within our team. To be included in the analysis, papers must 1) identify how Indigenous Peoples were leading, guiding, and/or governing the research; 2) describe how IK were a critical component of research; and 3) report on how the research benefitted Indigenous Peoples. All papers that meet our inclusion criteria will be scored using a relevance assessment tool we developed to assess how much information was provided on the local context for the Indigenous research, the outcomes from the IK in research, and the processes that facilitated the research outcomes.

**Conclusion** Our intention is to synthesize and amplify how IK have been centered in research, across multiple disciplines and geographies, to benefit Indigenous Peoples. We will focus on nurturing and fostering ways of doing Indigenous research and including IK in a way that supports the wellbeing of Indigenous Peoples.

## Background

Indigenous Peoples have lived, survived, and thrived on the lands since time immemorial and have developed intrinsic connections between the tmicw (land), séwllkwe (water) and all k̓wséltktenews (relations) that exist within Mother Earth. Through this interconnected web lies Indigenous Knowledges (IK), including knowledge systems and structures. Each family, community, and nation have their own distinct and diverse languages, cultural practices, traditions, history and worldviews that contribute to the understanding of what the term IK means. IK continues to be passed down from generation to generation through intergenerational communication systems, with tangible and intangible elements such as languages, songs, dance, oral teachings, ceremonies, storytelling, traditional regalia, artwork, and more. Indigenous Knowledge systems are dynamic and transformational as they live, remember, and (re)connect to the genetic memories and interconnections with the land, living beings, and spirit.[1,2]

The world of academia tends to recognize, train, and support colonial and colonized forms of research that "creates" knowledge or evidence.[3,4] Academics and academic institutions have longstanding histories of ignoring and discrediting IK,[5,6] excluding IK and people who do not conform to academic rules and credentials,[7] gatekeeping and possessing IK, as well as commercializing and profiting from IK and Indigenous Peoples.[8,9] In short, the notion of knowledge as something to find, keep, and control in exchange for gaining clout, money, credit, and career advancement is colonial and very much aligned with how academic institutions continue to function today.

Many Indigenous Peoples have asserted that Indigenous research is ultimately about accessing and sharing existing wisdom and Knowledges. Moreover, wisdom and Knowledges are inherent within the land and all beings, as well as in People's memories, including blood memory.[1,2] Indigenous Peoples, as Nations and groups have distinctly different IK and more often than not, agree that IK is relational – in physical and spiritual realms of all living beings, across time and space.[10] How IK is shared, practiced, and understood can also greatly vary by the sacredness of the Knowledges, ceremony and cultural protocols, People's roles and responsibilities to/with the land, within families and communities, and beyond. [10–12]

In Euro-Western forms of research, Indigenous Knowledges, systems and structures have been, and continue to be, marginalized, misrepresented, misappropriated, devalued, and stolen. Indigenous Elders and Knowledge Guardians[1] have expressed frustration with experiences of having their Knowledges exploited, not treated with care or respect, and not used in a way that it was intended. Elders and Knowledge Guardians have emphasized the importance of preserving Indigenous Knowledge (IK) for future generations, ensuring its respectful inclusion in research, and safeguarding it from exploitation by individuals outside the community. We aim to disrupt the historical and on-going dominance of Eurocentric research methodologies focused on Indigenous Peoples by promoting and nurturing rights-based and distinctions-based approaches that center Indigenous ways of knowing, being and doing within the entirety of this research project.[4,5,13,14] To begin this work, we as a team acknowledge the Indigenous principles of relationality and protocols of self-location in reference to the traditional and occupied territories

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[1] We use these terms to acknowledge and honor the diverse Traditional Knowledges and Knowledge systems expressed through community members, who may be referred to as Elders, Grandmothers, Grandfathers, Knowledge Holders, Knowledge Keepers, Old Peoples, Old Ones, and other local terms related to k̓wséltktenews (all our relations) within Indigenous communities.

and lands of Indigenous Peoples.[4,14,15] Each author and contributor to this research project has provided a brief self-location statement to identify themselves. Recognizing our relationality connects us to our past, present, and encompasses the numerous responsibilities we carry in connection to our social location, including our lands, families, and communities. We believe who we are informs the epistemology and ontology of our research.

*Self-Location Statements*

**Josie Auger** is a nehiyaw iskwew of Bigstone Cree Nation in Treaty 8. Currently, she is an Associate Professor at Athabasca University in the center of Interdisciplinary Studies. **Anita C. Benoit** is Mi'kmaw and French Acadian with family in Esgenoopetitj First Nation and Brantville, New Brunswick. She is an Assistant Professor in the Department of Health and Society at the University of Toronto Scarborough. **Simon Brascoupé**, (they/them) *Anishinaabe/Haudenosaunee – Bear Clan* is a member of Kitigan Zibi Anishinabeg, Maniwaki, Quebec living in Algonquin territory in Ottawa. They are an Adjunct Research Professor, Department of Sociology and Anthropology, Carleton University and Associate Graduate Faculty, Indigenous Studies, Trent University. **Mona Lisa Bourque Bearskin** is a member of Beaver Lake Cree Nation, Associate Professor and BC Chair Indigenous Health Nursing working as an uninvited guest on the traditional unceded territories of T'kumlups te Sewepemc where Thompson River University, School of Nursing is located. **Nicole Burns** (she/her) is a white settler born on the lands of the Pequot, Mohegan, and Eastern Nehântick Nations. She now resides on the traditional territories of the Attawandaron, Anishnaabe, and Haudenosaunee peoples. **Marcia Friesen** (she/her) is a white, cisgender woman and Canadian settler of European ancestry who lives on Treaty 1 Territory and the homeland of the Métis Nation, in

what is now called Winnipeg, Manitoba. Currently, she is Professor in the Center for Engineering Professional Practice & Engineering Education, University of Manitoba. **Ningwakwe (Priscilla) George** is an Anishinaabe Kwe from Saugeen First Nation (SFN) where she holds several positions including the Visiting Elder at the local high school, researcher on mental wellness initiatives, hospice coordinator, and an active SFN community member. **Jaiden Herkimer** (she/her) is of mixed Anishinaabe and European-settler ancestry, and is a member of the Mississaugas of the Credit First Nation. She currently resides within the bounds of the Between the Lakes Treaty (No. 3), in what is now called Simcoe, Ontario. **Nikki Rose Hunter-Porter** (she/her) is Secwépemc First Nations and is a community member of St'uxwstews within the interior of BC. She currently lives within Secwépemulwc in her home Nation within the unceded, occupied, and traditional territory of Tk'emlúps te Secwépemc, Kamloops BC. **Janet Jull**, a settler of Euro-Canadian descent, is a Researcher and Assistant Professor in the School of Rehabilitation Therapy, at Queen's University. Janet is grateful to live on the traditional unceded territories of the Algonquin Nation. **Tina Lanceleve** (she/her) is a Cree Métis woman with birth roots in Treaty 8 area but was raised in Treaty 6 territory, the traditional territories of the Nehiyaw (Cree), Denesuliné (Dene), Nakota Sioux (Stoney), Anishinaabe (Saulteaux), Niitsitapi (Blackfoot) and Métis people. She currently resides in Amiskwaciy Waskahikan (Beaver Hills House) now called Edmonton, Alberta. **Janice Linton** (she/her) is descended from Scottish and English settlers; born and raised in Nogojiwanong (Peterborough, Ont), on the traditional lands of the Michi Saagiig (Mississauga) Anishnaabeg. She is responsible for maintaining the University of Manitoba Libraries' Indigenous Health Collection and Services. **Melody Morton Ninomiya** (she/her) is a settler of Japanese and Swiss-German Mennonite heritage and upbringing. She currently works at Wilfrid Laurier University and lives with her family on the

Dish with One Spoon Treaty territory. **Joanna Nemeth** is a guest on Turtle Island. Her family immigrated from Western Europe and were refugees from Eastern Europe, who fled during the Hungarian revolution. She is currently enjoying the grasslands on Treaty 7 territory but spent most of her life on Treaty 6 and 8 territories. **Noé Préfontaine** (they/them) is a queer, disabled, Two-Spirited Métis person from the Red River Valley, known colonially as Winnipeg, where their ancestors have lived for many generations. They are a master of social work student at McGill University. **Diane Simon** (she/her) is Mi'kmaw, and whose paternal bloodlines are Gitxsan. She is a registered member of Fort Folly First Nation, a trained midwife and holds a master's in public health. Diane currently resides in Tkaronto/Toronto.

*Team Structure and Purpose*

Our research team consists of an Advisory Circle, Co-Investigators, and a Core Research Team. The Advisory Circle provides guidance, wisdom, and mentorship to the rest of the team.

*Figure 1 Team and Project Governance*
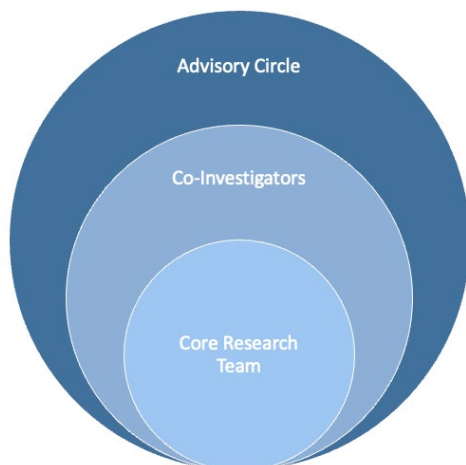


They have helped to identify common principles and inform research methodologies and knowledge sharing priorities. The Co-Investigators are responsible for developing, testing, and using research protocols and tools, based on guidance from the Advisory Circle. The Core Research Team is a combination of Co-Investigators and trainees (primarily Indigenous students or recent graduates). The Core Research Team is responsible for conducting most of the research, after the protocols have been developed. There is an extensive element of formal and informal mentorship on this project that

flows in all directions between the Advisory Circle, Co-Investigators, and the trainees, which is highlighted in a previous manuscript (Simon et al., 2023).

As authors, we are a diverse group of Indigenous and non-Indigenous scholars working across disciplines, institutions, geographies, nations, and communities. Our unique positionalities and intersectionalities are interconnected and situated within *tmicw*, the land, where our ancestral footprints were born and our People's legacies continue. We are passionate about exercising (and protecting) the inherent rights of Indigenous Peoples, which includes the preservation of IK. The intention of our research project is to conduct an Indigenous-informed realist review (the methodology is described in this paper) and explore the findings in connection with several case studies that we are conducting in tandem. In our realist review and Indigenous case studies, we will examine research that demonstrates Indigenous Peoples' sovereignty, self-determination, agency (Article 3 of UNDRIP) and the right to control, protect, develop, and maintain IK (Article 31 of UNDRIP).[16] Our intention is to amplify how existing IK are included in research, across multiple professions, areas of expertise, and geographies, to benefit Indigenous Peoples, communities, and Nations. We will amplify such Knowledges with a focus on the beneficence of nurturing and fostering ways of doing Indigenous research and including IK in a way that advances the overall wellbeing of Indigenous Peoples.

We are leveraging both historical and current Knowledges and relationships , thinking ahead to future generations. Our aim is to create secure spaces for those working alongside us, and coming behind us, enabling them to navigate systems of power such as academia and government funding.  We want to learn from the past and better understand assumptions and biases about Indigenous Peoples, to generate safe spaces for Indigenous peoples and IK. In particular, we want to generate safer spaces for distinct bodies of IK, Indigenous research,

Indigenous Peoples, and respect Indigenous Peoples' sovereignty, self-determination, and agency. Our Indigenous (home) communities motivate us to support our Elders and Knowledge Keepers, as well as protect communities from exploitation, extraction, and ongoing harms, especially by corporations and institutions. Our team recognizes that protecting Indigenous Peoples right to self-determination, intellectual sovereignty and Knowledge sovereignty is the only way to support the rights of Indigenous Peoples, and they are committed to take action with the guidance of Indigenous partners.

## Purpose of this Protocol Paper

In keeping with Indigenous Research Methodologies, our team recognizes the importance of the *how* and *why* behind our study. This protocol paper details the processes we have gone through in order to design an appropriate and rigorous realist review methodology. This paper details the search strategy, inclusion/exclusion criteria, and proposed analysis that we will complete for our realist review. The findings from the realist review will be published in a future paper.

A realist review is a theory-driven approach for synthesizing evidence in literature.[17] Typically, a realist review aims to explain or understand why interventions may or may not work within specific contexts. In our case, our review has one main objective: to explain and understand how IK in research has been used in "a good way" to the benefit of Indigenous Peoples. We will do this using Indigenous worldviews to examine the context(s) in which research took place (e.g., what/who initiated the project), the mechanisms as to how the research was conducted, and the outcomes of the research (e.g, intended and unintended impacts, the interactions between contexts and mechanisms).[18] The results of the realist review will weave

together both theoretical understandings and empirical evidence, with a focus on the relationality between the context in which the intervention is applied, the mechanisms that move it forward, and the produced outcomes.

## Defining Indigenous Knowledges

Our team agreed that the idea of defining IK is problematic, with a range of complications. However, we think it is necessary to define our working IK definition if we are going to write about IK. The idea of drafting and contextualizing a definition for Indigenous Knowledges has been at the heart of numerous conversations with our team. We discussed the implications of presenting a single statement that honours the breadth, depth, and interconnection of relationships within our own Indigenous ways of knowing, and if we could do this in a good way. Emerging from these conversations and gathering, reviewing, and discussing numerous definitions and descriptions for IK, it is with great humility that our team proposes the following working definition for the purposes of this project:

> Indigenous Knowledges are living, contextualized, and rooted in languages, cultures, traditions, and lands which are dynamic, diverse, and interconnected systems that contain ancestral, communal, holistic, and spiritual Knowledges that encompass every aspect of living existence, past, present, and future.

This definition was developed by reviewing and reflecting on the works of several Indigenous Elders and scholars, including those involved in this project.[11,12,19–27] The reason for including a working definition is two-fold: 1) we need to discuss how we distinguish IK so that we can have a shared understanding of what we will include in the realist review and 2) we need to articulate

to others how we use the term IK in the context of our project, as we share findings from the realist review.

## Research Questions

Our realist review aims to answer the following research questions:

1. **What are the contexts in which IK are included in research?** For example, who is leading/guiding research? Who funds the research? Are there disciplinary differences?

2. **How are IK included in research?** For example, what types of IK? Who is sharing the IK? Which parts of the research are IK being included? What research methodologies and methods are being used? How are IK gathered, preserved, used, and shared?

3. **What are the benefits and other outcomes to Indigenous Peoples from including IK in research?**

4. **What helps or hinders how IK benefits Indigenous Peoples?**

The desired outcomes from our review are to: 1) explicate how local Indigenous languages, concepts, and worldviews within Indigenous research contexts have been included, and to what end (in a culturally appropriate way) and 2) use the findings to occupy space and assert Indigenous Peoples' Knowledge systems in Eurocentric academic spaces and systems (e.g. research funding, published literature, research training).

## Methodology

Our realist review involves an iterative process shaped and guided by Indigenous ways of knowing, being, and doing. Rather than starting with the realist review process, as is established

in non-Indigenous bodies of literature, the team committed to developing and using Indigenous Research Methodologies (IRM) as an overarching framework to gather and analyze existing literature.[4,5] This review will be completed in tandem with a series of Indigenous case studies (which will be described in a future manuscript). The case studies will complement the realist review by offering in-depth and nuanced first-person perspectives and include undocumented accounts to answer similar research questions as this realist review.

Through shared reflections, teachings, and discussions, our team drafted and refined an image to conceptualize our review, using different yet reconcilable ways of knowing (Figure 2). This image reflects a spiraling and iterative way of doing. Clarifying the intent behind the realist review, the purpose, and the desired outcomes laid the foundation for this process. We came together to discuss the theory behind an Indigenous-informed realist review and decided if and how we could attempt to bridge Indigenous and western bodies of knowledges and knowledge systems to ensure this realist review is conducted in a good way. In other words, we have adapted a western-oriented method of examining literature to be more congruent with Indigenous Knowledge paradigms, processes, and practices of Indigenous team members. In some IK, the circle and medicine wheel teachings are divided into the four sacred directions; four seasons of the year (spring, summer, fall, and winter); four stages of life (child, youth, adult, and elder); four interwoven elements of wellness (spiritual, mental, emotional, and physical). As the sacred circle grows year after year, it creates a spiral pattern which represents wisdom in many cultures around the world. We understand research as inseparable from past and present events, and it will continue to impact the future; it builds on existing Knowledges and will contribute to future Knowledges and events. In this vein, our research begins inside the spiral (context), the

processes and journey we experience (mechanisms) during this research will take place in the middle, and outcomes will inevitably emerge and continue - likely spawning new research contexts/beginnings as the spiral continues in a circular pathway. It was essential that our team came together to agree on this conceptual understanding of *why* and *how* we could undertake such an important project.

*Figure 2 Framework for the Indigenous-informed realist review Conceptualized by Simon Brascoupé with input from Lisa Bourque Bearskin*
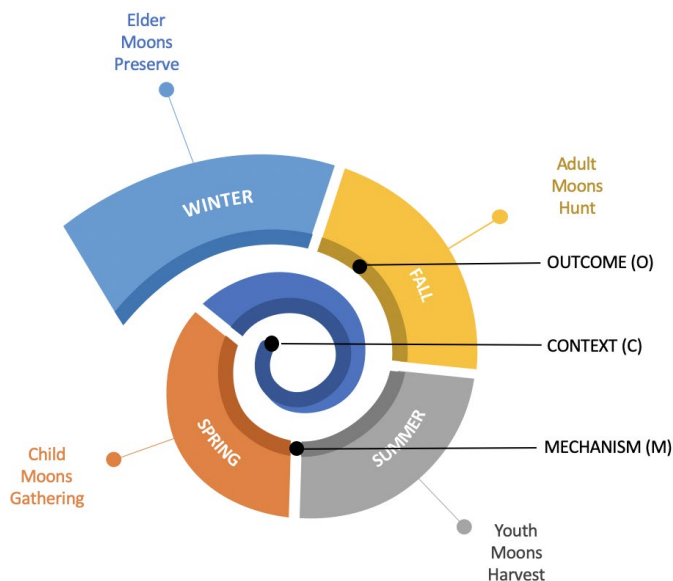


## Developing a Preliminary Draft Context-Mechanism-Outcome Theory

We drafted an initial context-mechanism-outcome (CMO) pathway theory based on the extensive Knowledges and experiences of our team in IRM and Indigenous community-based research; developing theory about contexts, mechanisms and outcomes is in keeping with realist review methodologies.[17] The project coordinator and co-principal investigators developed an

initial CMO theory based on past community-based research and the shared experiences and commonalities of this type of research with Indigenous Peoples as well as reviewing larger team meeting transcripts. Following numerous discussions, this preliminary image was presented to the trainees and early career researchers for collective discussion and theorization. Some changes were made based on further discussion. This preliminary draft image was useful in grounding the trainees in the concepts of community-based research and drawing attention to what CMO pathways might look like in the literature. The CMO theory will be revised after the final analysis and shared with the results of this review.

After this preliminary draft theory was developed, we asked all team members to share studies that they were familiar with that incorporated IK and provided examples of working with Indigenous communities in a good way. Team members also conducted some preliminary literature searches to look for good examples. Our team of trainees were tasked with reading the studies and developing CMO pathway figures for each article. They were given artistic freedom to draft images/figures to depict the distinct relationships of context, mechanisms, and outcomes. For each study,[28–45] 2-5 trainees drafted detailed CMO figures; at least one Indigenous trainee was required to draft a figure for each study. A sample of these figures can be seen in a reflexive manuscript co-written by several trainees and mentors on this project[46] as well as in Supplementary File 1. Each week, the trainees met virtually with the co-principal investigators, and occasionally other team members, to share and discuss draft CMO figures with each other, with a critical lens. The weekly trainee meetings and discussions also helped to refine the screening criteria, develop a relevance assessment tool, and draft extraction questions for the realist review (see Table 1 for extraction questions).

After the trainees completed CMO figures and discussed all 18 articles, they each looked across all completed CMO figures to observe overarching themes and concepts. Each trainee created a CMO figure that represented the majority of papers analyzed to date. They then met to share and discuss commonalities and differences between their figures to eventually create a summary table of the overarching CMO pathway themes. Based on the summary table that was discussed and refined by trainees and other team members, a figure was shared with the full team, for feedback and input. This CMO pathway figure will be tested with the forthcoming literature that will be screened and analyzed, based on a comprehensive search strategy developed by librarians with expertise in Indigenous literature searches.

*Search Strategy Methodology*

The following three searchable database portals were selected for identifying peer-reviewed journal articles: Scopus, ProQuest, and EBSCOhost. Each searchable online index includes several databases covering the sciences, humanities, and social sciences in order to gather the widest range of published research that has used Traditional Knowledges or techniques between the years of January 2000 to December 2021. Results from the database search (n=12,317) were imported into Covidence$^{TM}$, a systematic review organizational software, where duplicates were removed. After all duplicates were removed in Covidence$^{TM}$, the total number of articles remaining to be screened at the title and abstract phase was 10,587 (a sample search string can be found in Supplementary File 2).

Eight Indigenous research journals were selected for team members to manually screen articles published between 2000 and August 2022. These scholarly journals were selected because they are Indigenous-led, often feature Indigenous authors and collaborative practices, or

are not well-indexed in the commercial interdisciplinary databases. The Indigenous journals we manually searched and screened include: 1) Journal of Indigenous Social Development; 2) International Journal of Indigenous Health; 3) First Peoples' Child & Family Review; 4) International Indigenous Policy Journal; 5) Indigenous Policy Journal; and 6) Journal of Indigenous Wellbeing: Ti Mauri – Pimatisiwin; 7) Journal of Indigenous Research; and 8) Indigenous Knowledge: Other Ways of Knowing. All of the Indigenous journals are currently open access, and many have been publishing for several years. Team members scanned the tables of contents of issues going back to 2000 or since the first issue was published, if founded since 2000 as they screened titles and abstracts to identify papers that might meet the inclusion criteria described in the next section. Results from the manual search through Indigenous journals were imported into Covidence$^{TM}$ (n=165) where duplicates from the database search were removed (n=22).

*Screening Criteria*

For the title and abstract screening, all documents must meet the following criteria: 1) be primary research published or released in English between January 2000 - December 2021; 2) be research focused on Indigenous Peoples; 3) take place in Turtle Island (North America), Australia, Aotearoa New Zealand, and/or Central and South America.

All titles and abstracts from the database results will be included for full-text screening if they show promise of meeting the following inclusion criteria: 1) there is evidence that Indigenous Peoples were leading, advising, and/or governing the research; 2) there is a description of how IK were a critical component of the research process and/or findings; and 3) authors identify how the research benefitted Indigenous Peoples. Manually searched results from

Indigenous journals were essentially screened before being added to Covidence$^{TM}$ so they will be screened at the full-text screening stage.

*Information to Gather for Analysis (Data Extraction)*

All documents that meet the inclusion criteria will have relevant information gathered from the paper. Two team members will independently gather relevant information (commonly referred to as "data extraction" in reviews) for each article within Covidence$^{TM}$. A third team member will compare gathered information within Covidence$^{TM}$ and ensure that consensus was reached with information gathered. The final information will be exported into Excel and reviewed by the full team.

Our team developed a list of categories and questions to guide the information gathering of relevant information about the context, mechanisms, and outcomes of each document to test out with the same documents that were reviewed to develop our draft CMO pathways. We found that some of the original information gathering categories and questions required edits to help ensure consistent meaning for all researchers. The revised extraction categories and questions were reviewed and discussed between the co-principal investigators and the four Elders on the team individually, and then shared with the full team for review. The final data extraction categories include categories such as funding sources, who initiated the research and why, who was involved in the research and why, and what were the outcomes of the research spanning beyond the scope of the project. Table 1 lists all of the information gathering questions being used for the included literature found from the comprehensive search strategy.

Table 1. Information Gathering Questions

| CONTEXT | Indigenous Peoples: Which Indigenous group(s), nation(s) or organization(s) were involved in the research? |
|---|---|
| | Location: Where does the research take place? |
| | Research aim(s): What are the community(ies) priorities tied to this research? What local factors prompted this research? |
| | Does the paper define and specify community? If so, how is community defined and by who? |
| | Field of study/discipline(s) (give examples) |
| | Research question(s): What do the author(s) identify as the research question(s)? |
| | Authors: Who are the (co-)authors on the document? (e.g. Indigeneity, affiliation) |
| MECHANISMS | Funding - What is the funding source and who held the funding? |
| | Methodology - What terms do the authors use to explain their methodology(ies)? (e.g., Indigenous Research Methodologies (IRM), decolonizing, community-based research principles, participatory action research, strengths-based approach) |
| | Methods - What are the research methods? (consider how research design is reflective of overarching project) |
| | Was the research initiated by community? If so, who initiated it? |

| | |
|---|---|
| | If the research was initiated by outside researchers, how did they engage with the community? |
| | Is there evidence of self-reflexivity and/or self-location and positionality of the researchers? Include an example/excerpt. |
| | How was ethical approval sought/granted? (e.g., an institution, community, Chief & Council, Elders, and/or other?) |
| | Did the article talk about data sovereignty (Ownership Control, Access, and Possession (OCAP), Inuit Qaujimajatuqangit, or similar principles like Tri-Council Policy Statement – Panel on Research Ethics (TCPS2) or United Nations Declaration on the Rights of Indigenous Peoples)? If so, how? |
| | Is there evidence of any research agreements or formal partnership agreements? If yes, please specify. (consider pre-existing relationships) |
| | Is there any mention of ethical space or culturally safe space being made? If so, how was this done in the research? |
| | Relational accountability - Are relationships between researchers and community discussed? This includes relationships between the research team itself. If so, how? (e.g., relational reciprocity, ongoing relationships, existing relationships prior to research, relationships beyond timeline of the project) |

| | |
|---|---|
| | Which community members were part of the research process? We are interested in who was included/excluded (e.g., youth, Elders, two-spirited folks, women). How did everyone come to be involved in the project? |
| | How were Indigenous Peoples involved in the research? (e.g., advisory council, directing/leading the research, data collection, analysis, knowledge sharing) |
| | Is Indigenous Knowledge(s), or a comparable term, defined in the article? If so, how? Who is defining it? |
| | Is there anything in the article that aligns with the way the project has defined Indigenous Knowledge (or comparable term) that aligns with Indigenous Knowledge, the way we define it in the project? |
| | Are there efforts to share knowledge before, during and/or after the research project? If so, specify at which stage(s) and what ways (e.g., workshops, community feasts, community information sessions). |
| | What types of IK are mentioned in the article? (e.g., IRM, language, traditional skills, games, ceremony, traditional activities) |
| OUTCOMES | What are the reported outcomes of the research? (how has the research team provided feedback/communication of outcomes with community? Is sustainability of the work discussed?) |
| | Is there a clear connection or reported connection between IK and the outcomes? If so, specify. |

| | What other outcomes or benefits were there for participants and/or community(ies)? (e.g., results of the research itself and/or hiring, monetary compensation, authorship, further research opportunities, programming, services, training, long term relationships) (prompt: consider whether benefits are short-term, long-term, and/or whether there is evidence of follow-through) |
|---|---|

*Relevance Assessment Tool*

When we gather relevant information from each included study, we will also score studies using a relevance assessment tool below (Table 2). This tool was developed based on the overall knowledge and expertise of the research team and their previous experience working on realist reviews. The tool was drafted and then discussed in several meetings; changes were made at various stages until consensus was reached.

Anticipating a wide range in which authors of included papers describe the context(s), mechanism(s), and outcome(s), we have developed this scoring scale to have an understanding of how well the CMOs are described in each document. At the analysis stage of looking across the included studies, we plan to spend time analyzing approximately the top 50 studies with the highest relevance assessment tool ratings because they will offer the most insight into the CMO pathways. We will have two members of our team draft a CMO figure for each of these articles, which will be used in the analysis.

Table 2. Relevance Assessment Tool

| Criteria | Does not have a clear description | Has a partial description | Has a good description | Has an excellent description |
|---|---|---|---|---|
| | 0 | 1 | 2 | 3 |
| Context | | | | |
| Mechanism | | | | |
| Outcome | | | | |
| Total Rating (combined score across all columns) | On a scale of 0-9 | | | |

## Analysis

All study information will be gathered within Covidence[TM] (using Table 1 as a guide) and exported into an Excel document to be shared with the full team. All team members will have a chance to review the data individually before meeting as a large group to discuss initial observations. During our large team meeting, a smaller team will be identified to advance the in-depth analysis with trainees and project co-principal investigators. This smaller team will meet weekly while working through the analysis using an iterative process to discuss and refine the

themes and CMO figure(s). Once preliminary results are drafted, the large team will meet to share, review, and discuss preliminary findings. After final decisions are made with the full team, a CMO figure will be finalized.

## Strengths and Limitations

A primary strength of this realist review methodology is the fact that we have a large and diverse team consisting of Elders, senior Indigenous scholars, early career researchers and trainees bringing lived experience and various levels of knowledge to the research, including team members that have conducted realist, scoping, and systematic reviews in the past. Another strength of this realist review is that our team has been working in partnership with each other and each team member is part of a larger network of interdisciplinary teams across institutions and geographies. Furthermore, this realist review has been designed with a mentorship focus. There is knowledge exchange happening across all levels from the Elders, Knowledge Guardians, senior scholars, early career researchers, and trainees. The Knowledges of all team members have been considered in every phase of the project and will continue to be moving forward. The protocol has been conducted through an iterative process, beginning with project conceptualization and design. This realist review, in connection with our larger IndWisdom project, is founded on relationships and ceremony. This means that developing and maintaining respectful relationships within the team, as well as with all research partners, is integral to this project. Moreover, all meetings and research processes are conducted with agreed upon protocols, which vary based on the context and purpose (e.g., offering gifts to Elders who facilitate sharing circles). Finally, our Indigenous-informed realist review challenges the notions of how knowledge synthesis can be done in that it is extending the research approach

(knowledge synthesis) to be inclusive of more than just Eurocentric forms of knowledge, which is needed when working in Indigenous contexts.

Limitations of this realist review include: 1) examining literature printed in English from specific geographies while there may be rich and relevant literature from other places in the world and/or in other languages; and 2) our team does not currently include much Inuit representation.

This realist review is being conducted in tandem with a series of case studies. The case studies involve holding discussions with people most involved in a (nearly) completed research project to share, discuss, and unpack the contexts in which a study came to be, the outcomes from the study, and the mechanisms that facilitated the outcomes. The case studies will feature the perspectives, knowledge, and experiences of mostly Indigenous Nations and community members, as well as outside researchers, to hear about aspects of a research project that are not often included or fully described in literature. As part of a larger IndWisdom Project, the findings from this realist review and the case studies will - together - be used to advance Indigenous Peoples' sovereignty and rights with regards to IK in research and academic contexts, co-develop tools for Indigenous Nations and communities to assert IK and sovereignty in future research, reveal how IK is included and discussed (or not) in literature, and highlight how Indigenous Peoples benefit from research that prioritizes IK (see Figure 3). Our team will highlight wise practices for conducting research with Indigenous Nations and communities, based on included studies from the realist review as well as case studies. Knowledge sharing from the IndWisdom project will be iterative and ongoing in diverse ways, including: 1) hosting a gathering for our research and case study teams to network and brainstorm additional ways to share our findings effectively and strategically; 2) co-producing manuscripts with our research

and case study teams; 3) co-presenting at academic conferences; and 4) creating community reports and infographics.

Figure 3. IndWisdom Project Overview
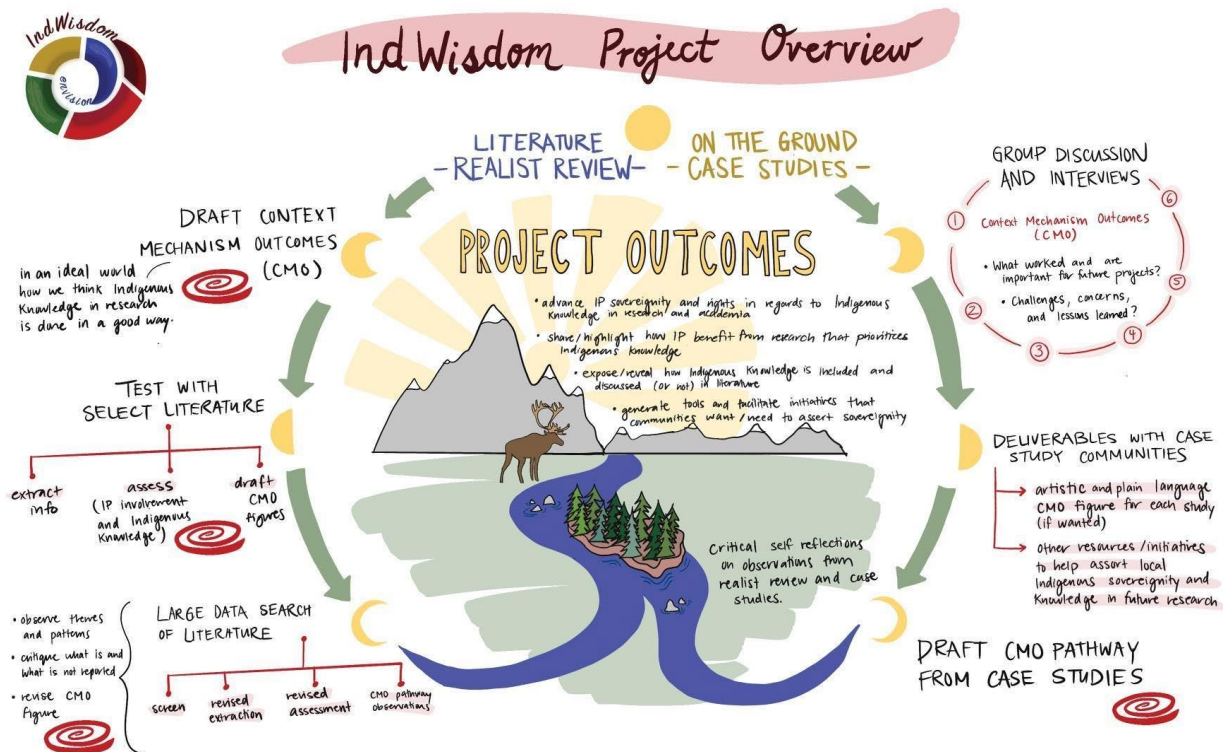


**Acknowledgements**

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M'sit No'kmaq/kahkiyaw niwâhkômâkanitik/Niw_hk_m_kanak/ ̓kwséltktenews (All My Relations).

## Ethics Approval

The realist review does not involve human participants and is exempted from a review by a research ethics board.

## Author Contributions

NHP and NB drafted this manuscript with significant review and input from LBB, MMN, AB, RM, and JJ. The manuscript was reviewed and approved by all co-authors on the team.

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## Competing Interests

The authors declare no competing interests.

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# Pathways to IndWisdom

*a collection of CMO pathways exploring*

# Indigenous Knowledges in Research

*with contributions from:*

NICOLE BURNS

NIKKI HUNTER

TINA LANCELEVE

NOE PŔEFÓNTAINE

SAMANTHA ROAN

JAIDEN HERKIMER

# INTRODUCTION

The IndWisdom research project examines how Indigenous Knowledge(s) (IK) is included and used in research to benefit the Indigenous Peoples of Turtle Island (Canada).

As past of the project's development of an Indigenous realist review, we drafted context-mechanism-outcome (CMO) pathways for articles that incorporated IK. We did this in order to better understand how IK is valued, preserved, and protected in research contexts.

The CMO pathway illustrations and composite images drafted reflected the diverse, creative thought processes of the reviewers. While common themes emerged amongst the images, each reviewer imbued their works with unique, sensitive, and exciting perspectives that led to the following collection of CMO pathways.

Ljubicic, G., Okpakok, S., Roberston, S., & Mearns, R. (2018). Uqsuqtuurmiut inuita tuktumi qaujimaningit (Inuit knowledge of caribou from Gjoa Haven, Nunavut): Collaborative research contributions to co-management efforts. *Polar Record* 54: 213-233.

~ FUNDING ~
SSHRC
CARLETON UNIV.
UNIV. OF AB
INUIT HERITAGE TRUST
N.S.T.P

~ sharing
~ material
~ Tuktuit
~ movements
~ habitat / health
~ seasonal rounds ~
~ respect
~ wel-being
~ values
~ skills
~ relationships
~ cultural identity, continuity

~ CONTEXT ~
↳ community members identified the importance of documenting Inuit knowledge in order to be taken more seriously by researchers & gov't managers
~ involvement of Inuit & considerations of Inuit knowledge paramount in undertaking any research or wildlife management initiatives in Inuit Nunangat.
~ colonial policies contributed to devastating inter-generational legacies for many Inuit families.
~ Indigenous ways of knowing/being intergenerational / ever-evolving & grounded
~ reciprocal relationship with people/land/water/ice/all living beings
~ concerns about past research practices/effect of changing lifestyles/physical/mental well-being of community/potential future imposition of hunting quotas.
~ ignored by gov't & researchers

~ CBPR
~ IRMS
~ 3 R's
respect/reciprocity relationality

~ MECHANISMS ~
~ advocating IK systems
~ communities as collaborators & partners in research
~ reciprocal sharing of knowledge
~ working together for the common good
~ community engagement in early meetings
~ working together throughout all stages of research
~ value & rely on Inuit knowledge ~ jointly seeking funding/investing locally ~ develop appropriate wildlife monitoring techniques ~ Engaging Elders/Youth in research
~ sharing results at all stages ~ 3 days of discussion ~
~ three Elder-youth land camps, 39 interviews, 5 verification workshops ~ history/Inuktitut lang/terminology/mapping seasons

~ OUTCOMES ~
~ research seeks to contribute to ongoing efforts to encourage greater attentiveness to Inuit knowledge in policy and decision-making

~ defining information needs
~ develop closer working relationships
~ learn from local experts
~ support local leadership in research & mgmt. efforts

~ driving force for researchers to engage in & improve, ethical & respectful research relationships with Inuit communities

~ identify gaps & future needs must consider community priorities

~ developing & implementing credible research

~ developing a solid information base for Nunavut's caribou population

~ more opportunities to meet/share knowledge within & between regions of Nunavut

~ document/synthesize Uqsuqtuurmiut knowledge of tuktuit to make it more publicly accessible to younger generations, researchers & wildlife managers.

1

# What Has Always Been Known?

* Prioritize Inuit knowledge when drafting Caribou resteration legislation
    * Imp. note - PAPER IS GEARED FOR RESEARCHERS AND GOVERNMENT OFFICIALS.

★ Document Inuit knowledge for Inuit Youth

## ↳ MECHANISMS TO ACHIEVE ↲

* Collaboration + Co-Management based on Indigenous Research Methodologies
    ↳ 3 R (RESPECT, RECIPROCITY, RELATIONALITY)
* IQ needs to be treated equitably + given same weight as Western Knowledges. ✓

★ Elder teaching woven throughout
    ↳ Seasonal teachings → [seasonal cycle diagram: SU, F, W, SP]

    ↳ Caribou ebbs + flows — "BEFORE, ELDER CHILDHOOD, RETURN."

<u>Important Note</u>: THE INUIT ELDERS POINT OUT THAT THE ARRIVAL OF GUNS + DISAPPEARANCE OF CARIBOU ≠ OVERHUNTING OR ALL OF INUIT FAULT. THEY POINT TO GUNS, SOUND SCARING CARIBOU AWAY + SETTLER INTERFERENCE

↳ Outcome ▵

- In-depth report on Inuit knowledge
- Something that youth have access to?

Questions
- Is there a mechanism to see if this is included in policy formation
- Will youth be able to access + synthesize info?
  how do we ~~find~~ evaluate whether IQ is being referenced at the same level.

2

Context

Ljubicic, 2018
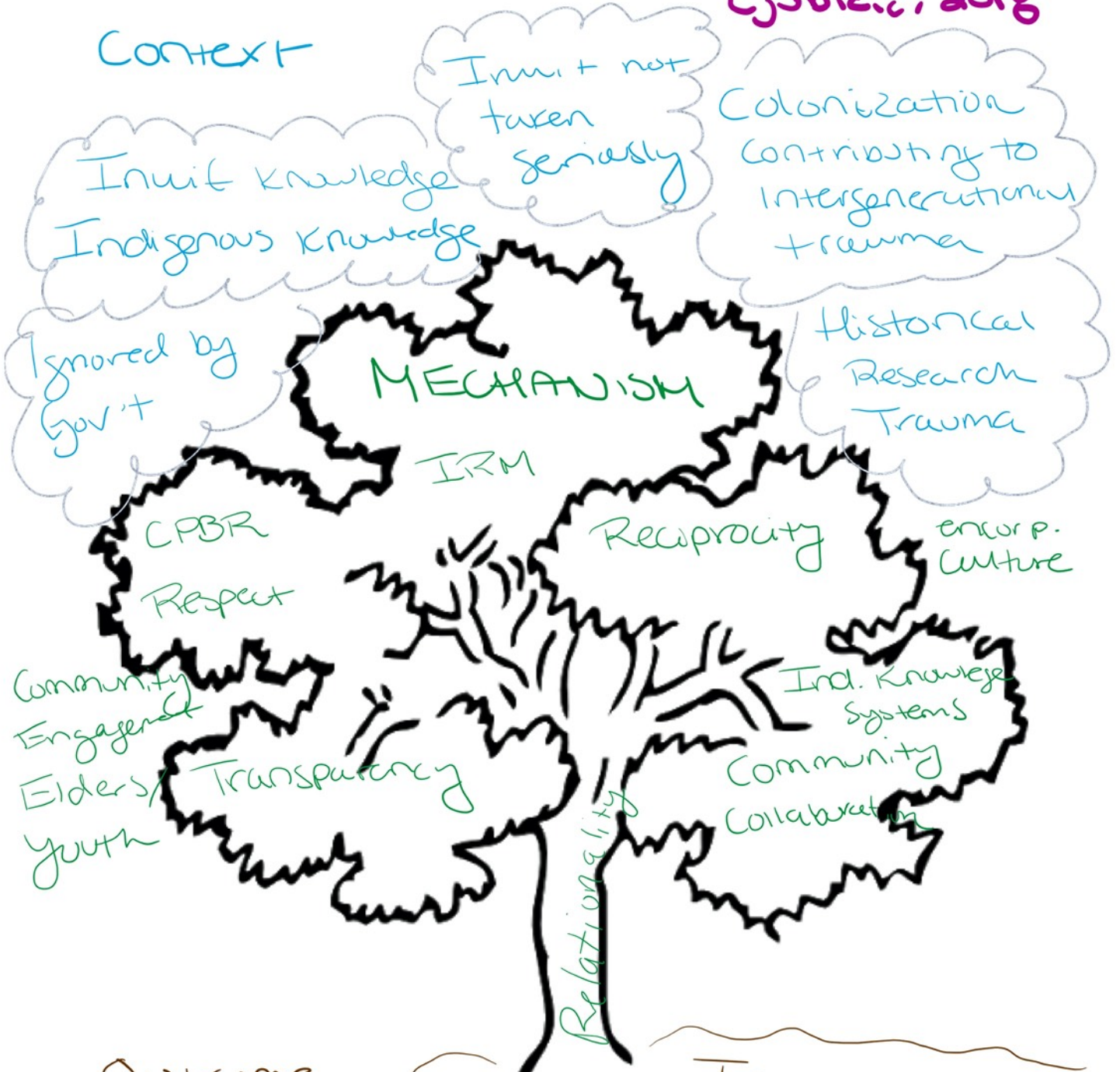
Inuit knowledge
Indigenous knowledge

Inuit not
taken
seriously

Colonization
contributing to
Intergenerational
trauma

Ignored by
Gov't

Historical
Research
Trauma

MECHANISM

IRM

CPBR

Respect

Reciprocity

encorp.
culture

Community
Engagement
Elders/
Youth

Transparency

Relationality

Ind. Knowledge
Systems
Community
Collaboration

Outcome

Recommendations
for gov't

Policy & Decision
Making

Identify
Gaps

Inuit knowledge
Documented for
Cultural knowledge
for future generations

↓ Disconnection btw
research/Gov't/Inuit

3

# Uqsuqtuurmiut inuita tuktumi qaujimaningit... Ljubicic et al. 2018

**Context** Community members identified the importance of documenting Inuit knowledge in order to be taken seriously by researchers and government... Lack of baseline information and limited capacity for ongoing monitoring.

**mechanisms**

- CBPR
- IRMs
- 3R's
- maintaining accountability beyond timelines
- Self-localion
- incorporating IK systems
- Community as collaborators → partners
- research agenda set by community
- advisory committee
- reciprocal sharing of knowledge
- indigenous conceptual frameworks
- investing funding locally
- working together @ all stages of research
- Ensuring local benefit
- Engaging youth + Elders
- multiple indigenous methods
- sharing results @ all stages
- Developing appropriate tools for research

- incorporating language

**outcomes**

- Document + make accessible knowledge of tuktuit (caribou) for future generations + wildlife managers
- add to research that supports relationships, learning from local experts, and supports local leaders
- contribute to greater attentiveness to Inuit knowledge in policy- and decision-making
- Increase in information and knowledge sharing to the benefit of Inuit
- aid in ability to co-manage herds for Nunavummiut
- platform for Inuit to have their voice heard

**Specific recommendations for govt.**

- for community benefit
- Ensure that current + reliable info is available to support management decisions to the benefit of Inuit lifestyle + culture + health/wellness
- aid in decreasing disconnect between Inuit and government approaches to herd management

4

# CONTEXT

established legal and ethical responsibility to work with Inuit knowledge holders, community members and organizations

caribou are embedded in northern life, culture, diet, and histories

community-identified need to document and synthesize UQ knnowledge of caribou for youth, researchers and wildlife managers IN ORDER FOR Inuit knowledge to be taken seriously by researchers/government

Following the research agenda determined by Indigenous community collaborators

Positioning Indigenous communities as collaborators and partners

## OUTCOMES

- IQ promoted as an important, relevant and effective knowledge system/research process
-social, cultural histories of elders and knowledge holders shared with community and youth
- wildlife timeline/season patterns documented through IQ
- traditional knowledges and teachings shared with youth and community at-large

Reciprocal sharing of knowledge

Accepting and advocating Indigenous knowledge systems

Fast, E., Lefebvre, M., Reid, C., Wahsontiiostha, D., Swiftwolfe, M.C., Boldo, V., Mackie, J., Mackie, R., & Tutanuak, K. (2021). Restoring Our Roots: Land-Based Community by and for Indigenous Youth. *International Journal of Indigenous Health 16*(2): 120-138.

# Land-Based Teachings

IRM

CONNECTION

ELDERS

YOUTH ADVISORY
COMMITTEE

RESILIENCE

IK

3R's

LAND-BASED
RETREAT

SELF-REFLECTION

STRENGTH-BASED

YOUTH
FELT HEARD

ELDERS + YOUTH
CONNECTION

LOVE GROUNDED

SAFE HEARD

TRADITIONAL IK

CONFIDENT

CONNECTED

6

# Restoring Our Roots: Land-Based Community by and for Indigenous Youth. Fast et al. 2021

CONTEXT Investigating the impacts of land-based teachings on indigenous youth

MECHANISMS

- land-based retreat
- Inclusive community of support
- youth shaped project as collaborators
- time for self-reflection
- IRMs
- 3Rs
- youth on advisory committee
- diverse methods (arts)
- embodied community ethics
- Indigenous methods (sharing circles, ceremonies)
- incorporating Elders
- options for youth to focus on their own needs + abilities
- sharing + incorporating Indigenous knowledges
- focus on strengths + resilience

OUTCOMES

- youth felt safe and listened to
- youth learned to manage shame + fear of judgement
- genuine youth + Elder relationships formed
- youth felt included + cherished
- youth reconnected to culture
- youth learned about relationship with land
- youth felt more confident, grounded + balanced
- youth integrated knowledge into daily lives
- lasting positive change
- led to further research + partnerships

windows are how we are isolated from one another

Buildings are assimilation, colonization, violence

the windows in this building are not "in place" and are not conforming to settler Canadian ways of knowing

INCLUSION  ACCESSIBILITY  TEACHINGS  DISCONNECTION  RECONNECTION  TRANSFORMATION

DOCUMENTING LAND BASED TEACHING OUTCO[MES] FOR LGBTIQ 2S+ YOUT[H]

- the trees are ~~also~~ ancient knowledge systems
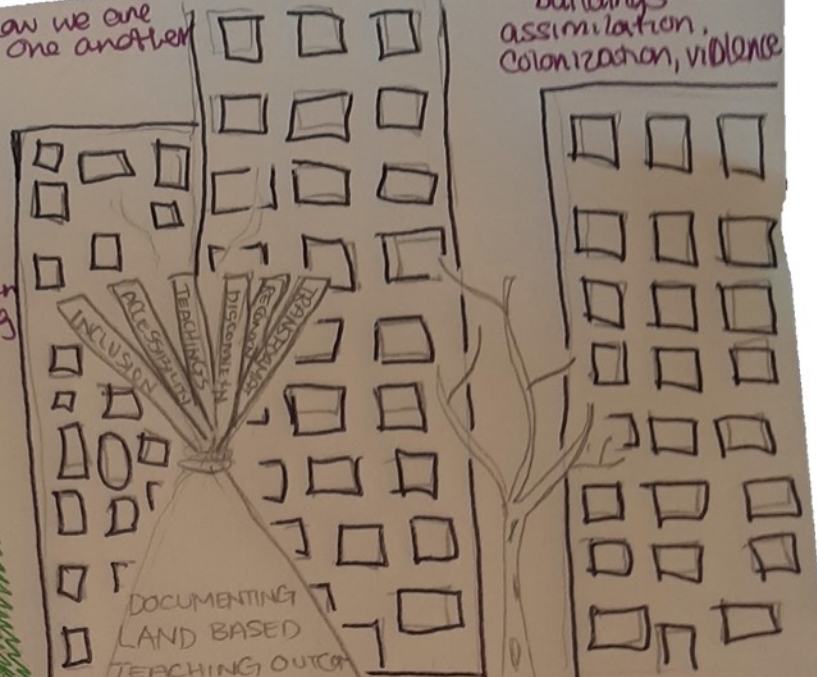
- this tree shows how that knowledge has been impacted + how it is waiting reawakening

SHAME  EXCL

- the sacred fire burning away feelings of shame + exclusion bringing everyone together at the home fire

- each tipi pole is a theme from the study
  - Inclusion - accessibility - teachings - disconnection
  - RECONNECTION - Transformation

- the door pegs rep the things that enabled this - supportive ELDERS, SPACE, that is safe, non-judgemental, welcoming

- the bottom pegs represent the youth, land, elders, knowledge safety, ability to participate + be heard and empowerment

- with tipi wrapping around signifying that they were surrounded w/ love + culture.

**O**

- <u>Inclusion</u> - youth felt welcomed and accepted
- <u>Accessibility</u>
- <u>Disconnection/Reconnection</u> - experiences of disconnection pre-retreat, retreat helped them feel reconnected
- <u>Inspiration</u>
- <u>Transformation</u>
- <u>Teachings</u> - land-based activities and oral narratives provided teachings on relationships to the land including fire, ceremonies, and medicine

**M**

- Land-based retreat rooted in IRM/IK/the centring of Indigenous worldviews
- (Indigenous) Youth involvement as collaborators
- Emphasis on community voices, partnership and ethics, kinship networks and traditional/cultural teachings revealing the interconnectedness of relationships

**C**

- Limited knowledge gathered about the impacts of land-based teachings on Indigenous youth
*Indigenous land-based experiential living/learning is happening outside a research-based context*
- Dissociation of Indigenous Peoples from ways of being/relating to land tied to colonization, assimilation, and land theft
- Urban and rural Indigenous youth, largely disconnected from community, are looking for ways to reconnect to their

The colour scheme for the tree's leaves is a nod to the article's emphasis on Two-Spirit, Indigiqueer and other sexually and gender diverse Indigenous Peoples and their experiences of disconnection/reconnection to cultural spaces and practices.

The arrows indicate the continous, reciprocal relationship between root system and branch/leaf, pointing to an interchange between context and outcomes in which the context informs the outcomes and the otucomes create new contexts.

~CONTEXT~

~ aSLGBTQIA ~
Youth

~ Indigenous context

~ community

~ Youth

~ regenerating intergenerational teachings

~ binary rather than inclusive

~ looking to reconnect to:

land    culture

spiritual

safe spaces

emotional

intellectual dimensions

~ land-based-teachings

~ Elders

~ Youth disconnection from community

~ suicide/violence

~ centering Indigeneity

~ Indigenous process

~ MECHANISMS ~

~ IRM/Pedagogies              ~ Indigenous worldviews

~ Youth on advisory (4       ~ community
   committee     day retreat'    ethics        ~ partnership with community

~ creating ethical                ~ kinship          ~ blanket exercise
   best practices for       ~ led by   networks   ~ cultural workshop/ceremony &
   inclusivity & safe spaces   Elders   ~sweatlodge   arts-based activities
                                          teachings   ~ traditional medicines
~tobacco & cloth to give thanks   ~ focused on cultural teachings/awareness
                                     and interconnected relationships

~ OUTCOMES ~

~ felt safe

~listened to during
 land-based retreat

~inclusion

~accessibility

~connection to cultural
 heritage and
 identity

*manage pre-existing
 shame & judgment
 by inviting them
 into a place of
 empowerment

~transformation

~voices

~ on the land

~particing in ceremonies

~decolonizing/queering & creating non-
 binary inclusive spaces

~self-esteem

~reconnection

~teachings

~ much needed relief & greater
 understanding of themselves as they
 relate to their Indigenous culture

10

Healey, G., Noah, J., & Mearns, C. (2016). The Eight *Ujarait* (Rocks) Model: Supporting Inuit Adolescent Mental Health With an Intervention Model Based on Inuit Knowledge and Ways of Knowing. *International Journal of Indigenous Health* 11(1): 92-110.
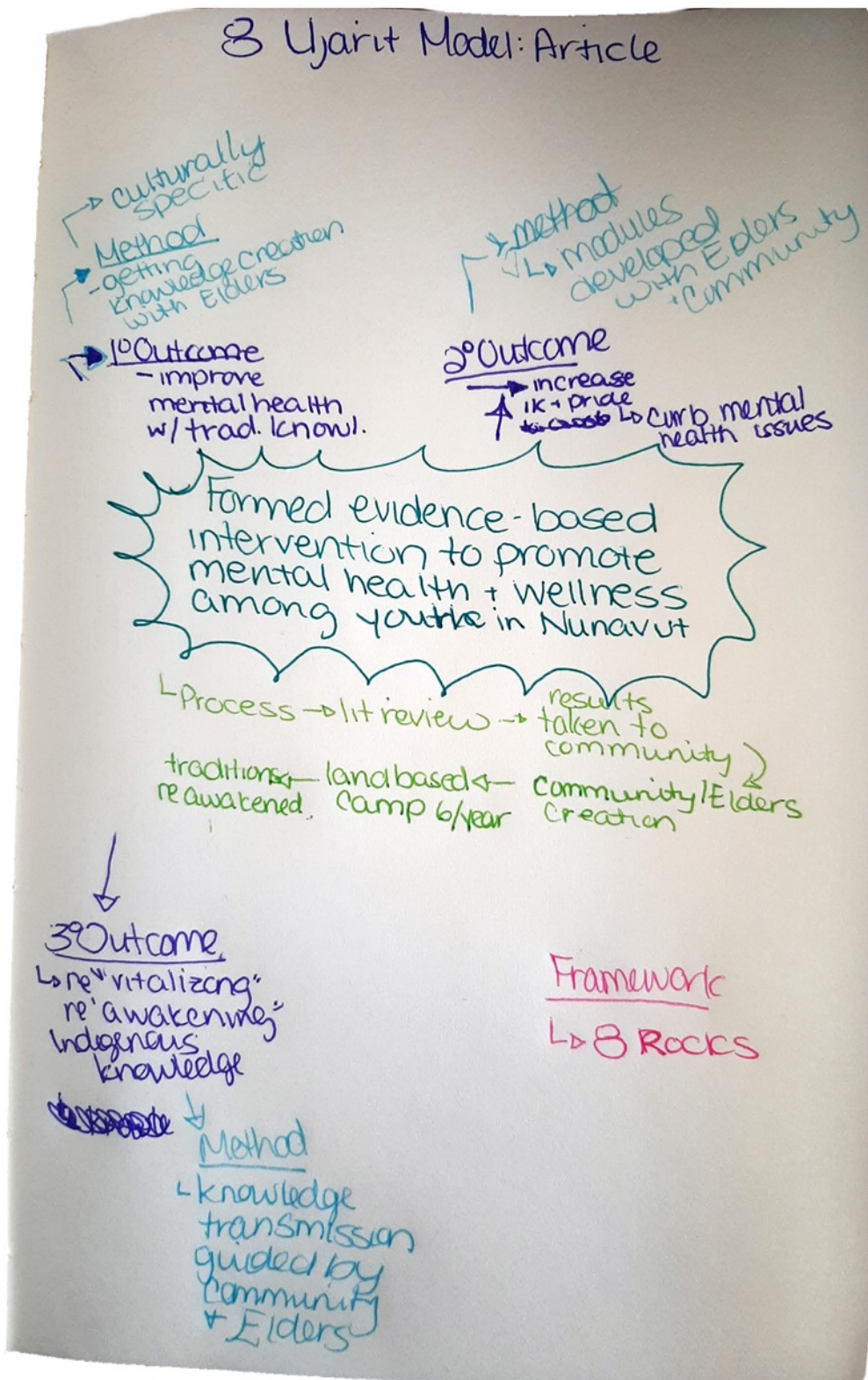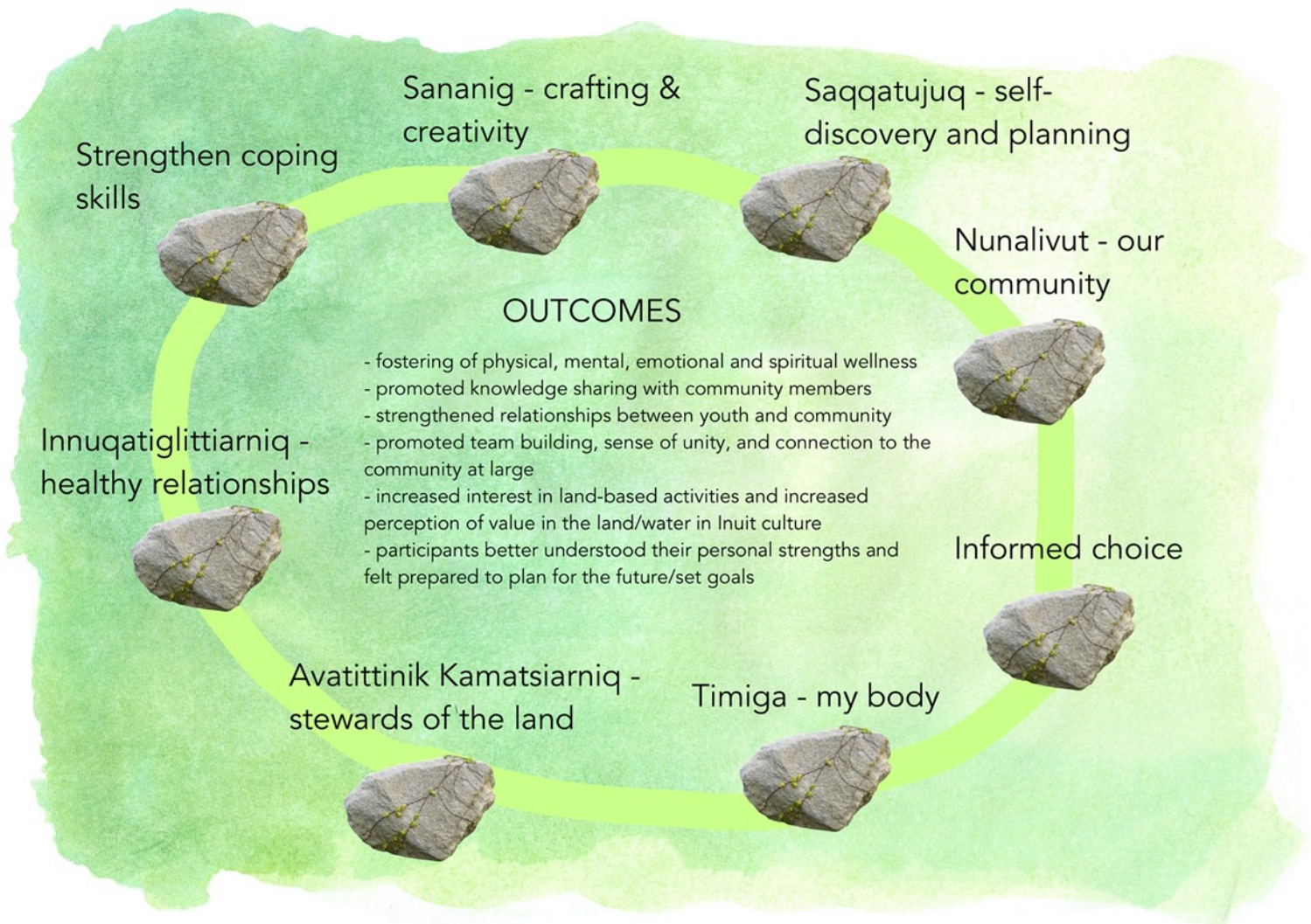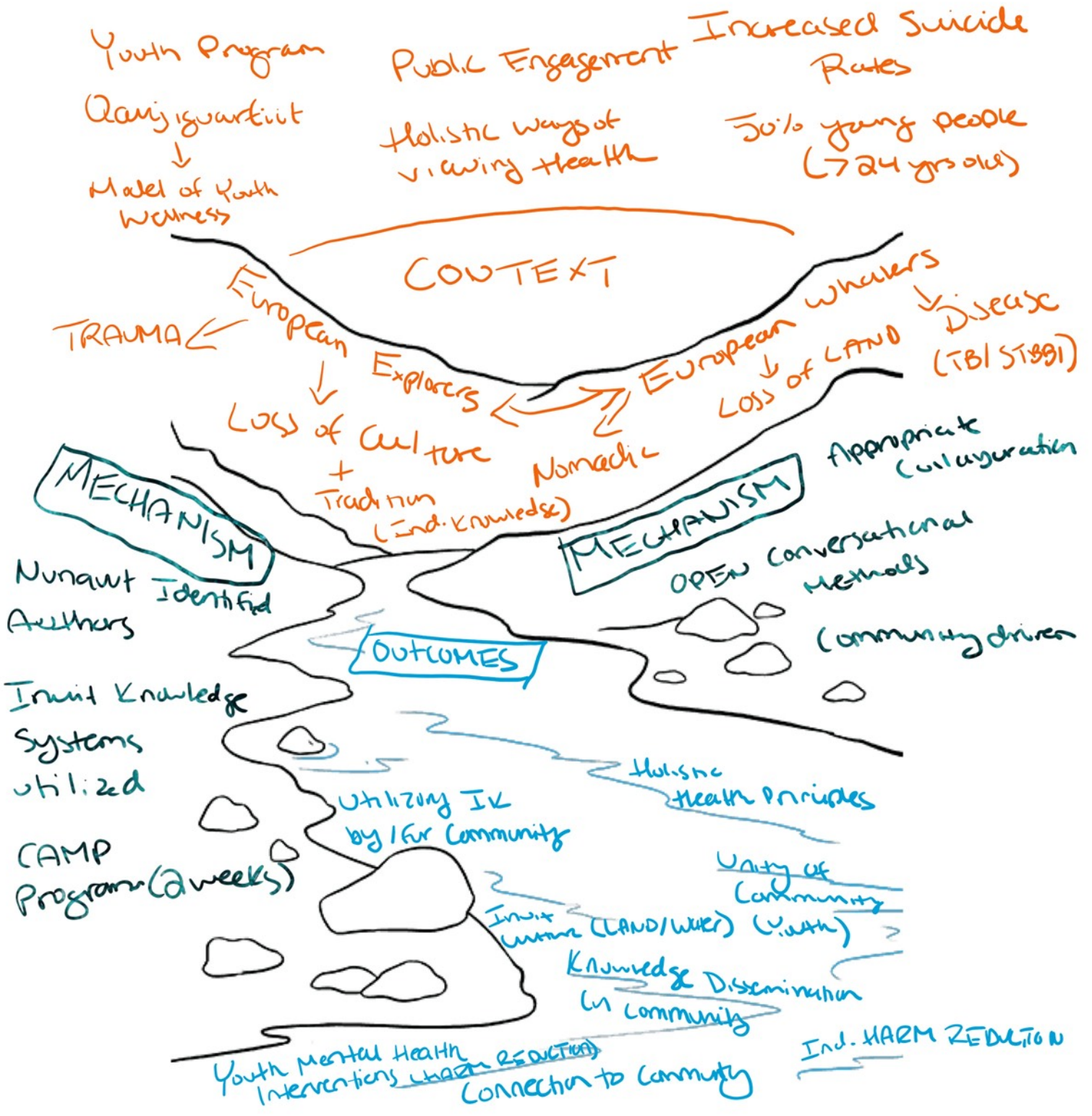
CONTEXT

extremely high rates of
attempted suicide

large, growing population of youth
requiring mental health services

introduction of infectious diseases, displacement,
traditional economic/subsistence pattern disruption, all
tied to colonization

community-identified need for youth programs that
demonstrate positive outcomes for participants

Sananig - crafting &
creativity

Saqqatujuq - self-
discovery and planning

Strengthen coping
skills

Nunalivut - our
community

OUTCOMES

- fostering of physical, mental, emotional and spiritual wellness
- promoted knowledge sharing with community members
- strengthened relationships between youth and community
- promoted team building, sense of unity, and connection to the
community at large
- increased interest in land-based activities and increased
perception of value in the land/water in Inuit culture
- participants better understood their personal strengths and
felt prepared to plan for the future/set goals

Innuqatiglittiarniq -
healthy relationships

Informed choice

Avatittinik Kamatsiarniq -
stewards of the land

Timiga - my body

Youth Program

Qaujigiartiit
↓
Model of Youth
Wellness

Public Engagement

Holistic ways of
viewing health

Increased Suicide
Rates

50% young people
(7-24 yrs old)

CONTEXT

TRAUMA ←

European Explorers ←

→ European Whalers ↓ Disease
(TB/STBBI)

Loss of Culture
+
Tradition
(Ind. Knowledge)

Nomadic

Loss of LAND

MECHANISM

Nunavut Identified
Authors

Inuit Knowledge
Systems
utilized

CAMP
Program (2 weeks)

MECHANISM

Appropriate
Collaboration

OPEN Conversational
Methods

Community driven

OUTCOMES

Utilizing IK
by/for Community

Holistic
Health Principles

Inuit
(LAND/Water)

Unity of
Community
(Youth)

Knowledge Dissemination
In Community

Ind. HARM REDUCTION

Youth Mental Health
Interventions (HARM REDUCTION)
Connection to Community

13

# «The Eight Ujarait/Rocks Model for Youth Wellness Intervention»

(Healey, Noah, Mearns)

## CONTEXT
~ attempted suicide rates high
~ 48% thought about it
~ 14% non-fatal attempts
~ young people most recent
~ 50% pop under age of 24

## CONTEXT
~ public engagement sessions
~ community identified need for youth program
~ Qaujigiartiit Heath Research Centre developed model of wellness for youth.

### European whalers/explorers
= turning point in health of Inuit
~ tuberculosis, influenza, STI's
~ cultural shift nomadic lifestyle
~ relocation ~ residential/day schools
~ trauma & loss of accumulated Inuit wisdom, knowledge, teachings & practices

«Many Inuit youth today do not feel a connection to or sense of stewardship (avatittinik Kamatsiarniq) or knowledge of harvesting skills and practices that are highly regarded in Inuit society (Nunavut, Tunngavik, 2011; Searles, 2010)
Well-being = all encompassing / holistic / social / spiritual / physical / emotional

## MECHANISMS
~ Two authors from Nunavut
~ One author partner/kids from Iqaluit
~ authors developed model
~ validated by community
~ open dialogues
~ authors use their life experiences/perspective & relationship with community

### ~ OUTCOMES ~
Developed, implemented & evaluated by/for Nunavummit
~ embedded in social context, language & values

## MECHANISMS
~ framework based on Inuit philosophy
~ lit reviews
~ themes from reviews presented to community, parents, Elders & youth
~ community consultations
~ community-driven & culturally relevant for youth
~ piloted as a camp program
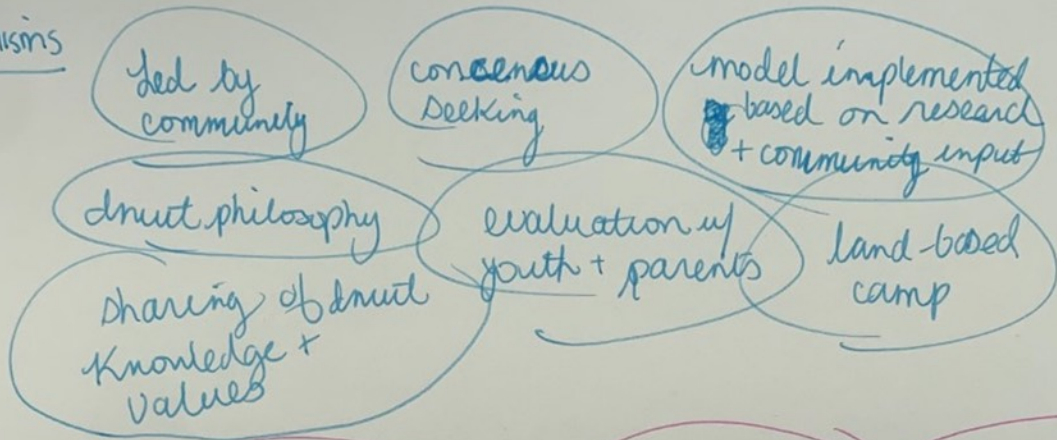~ 8 week camps/delivered 6 times to 5 communities.

### ~ OUTCOMES ~
~ fostered physical, mental, emotional & spiritual wellness
~ knowledge sharing in community
~ role models ~ strengthening relationship between youth & community

~ team building with peers ~ unity among group ~ connection to community ~ value land/water in Inuit culture ~ make friends ~ happier, better prepared to deal with difficult situations ~ promoted Inuit values/connection to family, community & land.
~ Evidence-based, community driven models for youth mental health interventions in the North hold extraordinary promise.
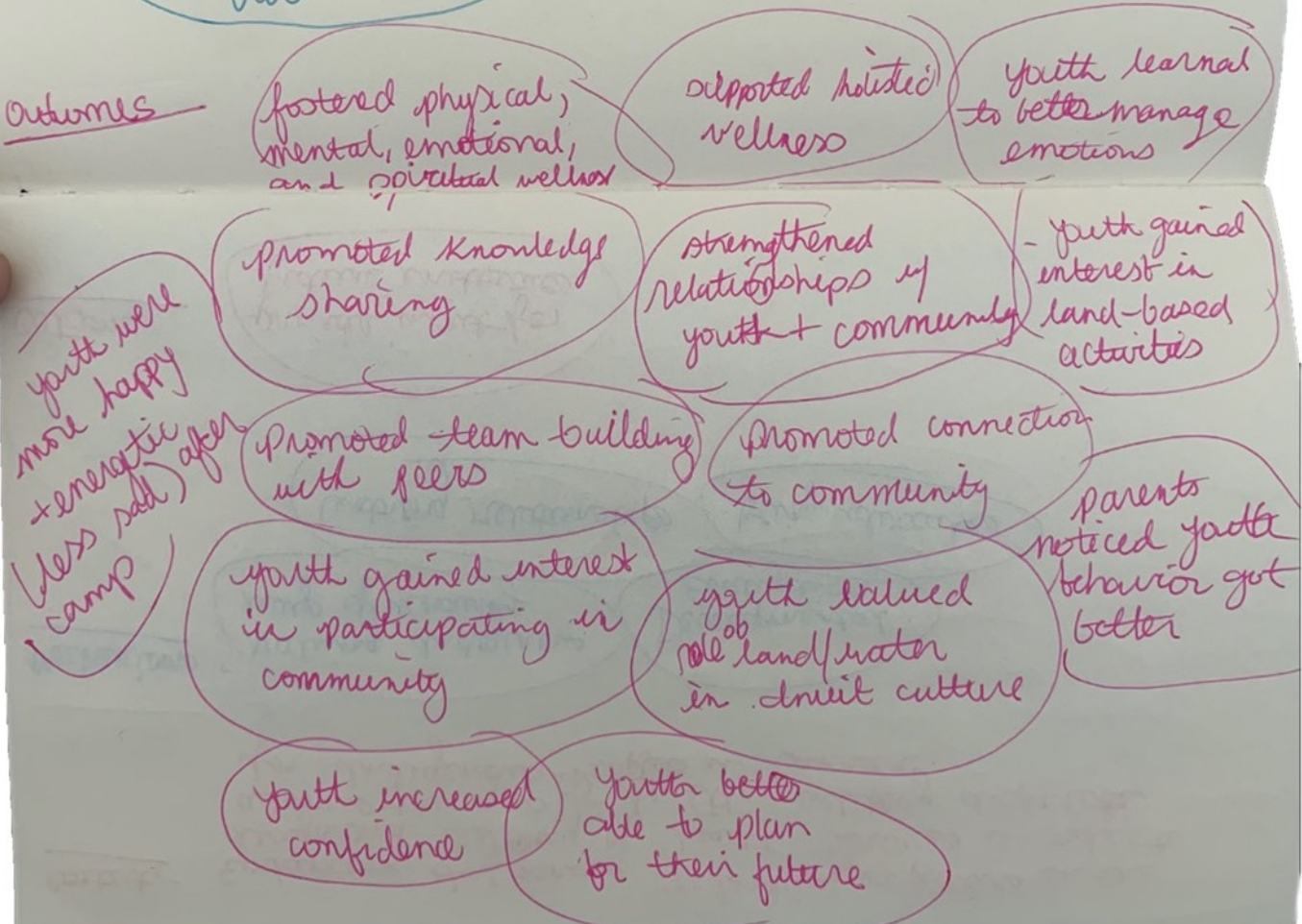
# The Eight Ujarait (Rocks) Model ... Healey et al. 2016

**Context** Community-identified need to promote mental health + wellness among youth in Nunavut
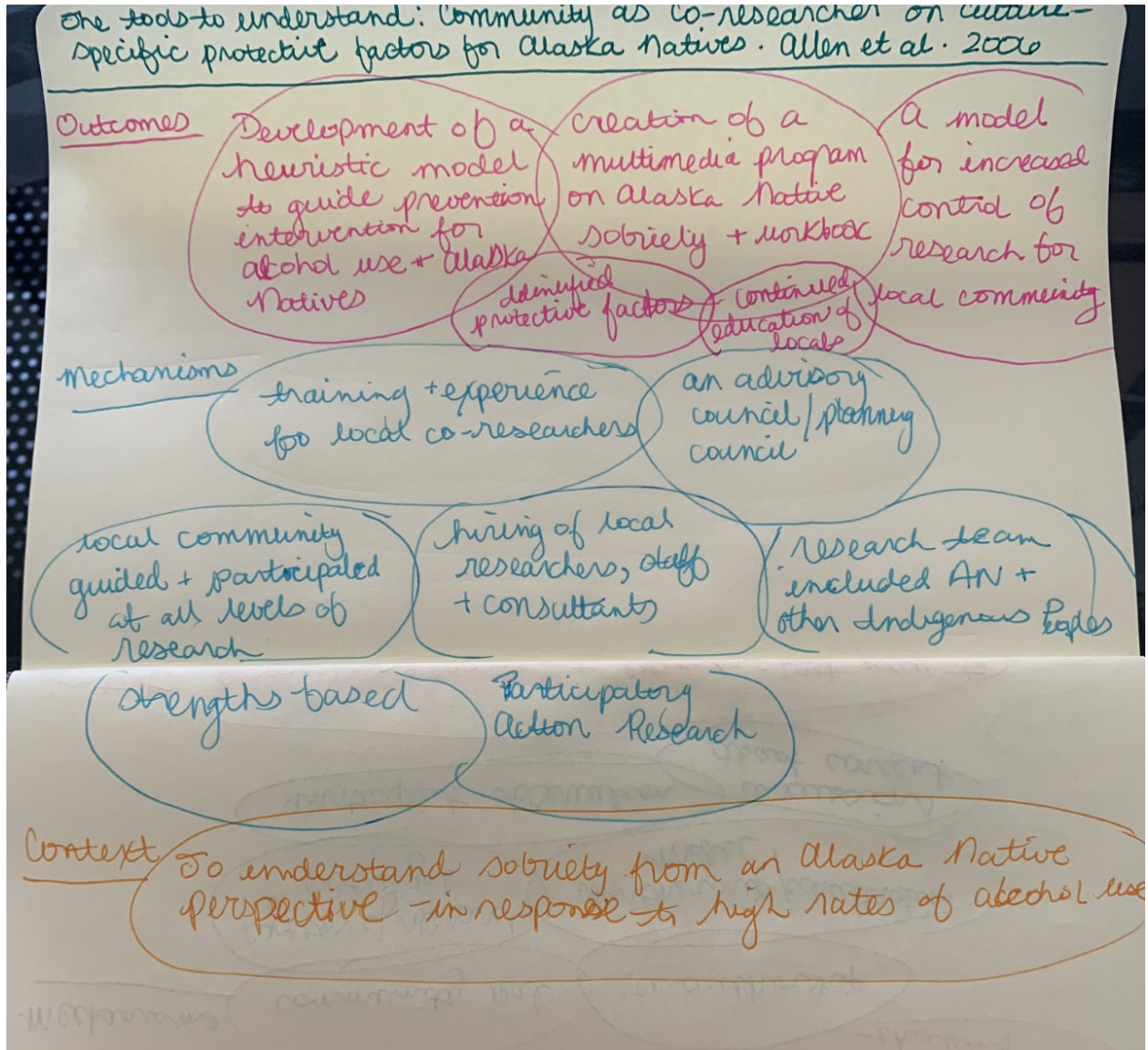
**Mechanisms**

- Led by community
- consensus seeking
- model implemented based on research + community input
- Inuit philosophy
- evaluation of youth + parents
- land-based camp
- sharing of Inuit knowledge + values

**Outcomes**

- fostered physical, mental, emotional, and spiritual wellness
- supported holistic wellness
- youth learned to better manage emotions
- promoted knowledge sharing
- strengthened relationships of youth + community
- youth gained interest in land-based activities
- youth were more happy + energetic (less sad) after camp
- promoted team building with peers
- promoted connection to community
- parents noticed youth behavior got better
- youth gained interest in participating in community
- youth valued role of land/water in Inuit culture
- youth increased confidence
- youth better able to plan for their future

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The tools to understand: Community as co-researcher on culture-specific protective factors for Alaska Natives. Allen et al. 2006

**Outcomes**

Development of a heuristic model to guide prevention intervention for alcohol use + Alaska Natives

Creation of a multimedia program on Alaska Native sobriety + workbook

A model for increased control of research for local community

identified protective factors + continued education of locals

**Mechanisms**

training + experience for local co-researchers

an advisory council / planning council

local community guided + participated at all levels of research

hiring of local researchers, staff + consultants

research team included AN + other Indigenous Peoples

strengths based

Participatory Action Research

**Context** To understand sobriety from an Alaska Native perspective — in response to high rates of alcohol use

# Community as Co-Researcher on Culture-Specific Protective Factors for Alaska Natives

## (Allen et al., 20006)

**Context**

Alaska Native Communities
↓
Protective factors in Alaska Native Sobriety and Preventative measures

**Mechanism**

- o **Participatory Action Research**
- o **Community as Co-researchers: Training and support, hiring of local community researchers/staff**
- o **Community Advisory Council -PACC: planning and decision-making**
- o **IK: Oral Traditions**
- o **Strength based: sobriety rather than alcoholism/cultural and spiritual understandings of this sobriety.**

**Outcome**

- o **Heuristic Model: to guide preventative work in the future**
- o **Alaska Native Workbook/ Media Content**
- o **Protective Community Factors (mentors/safe places/etc.)**
- o **Culturally grounded prevention intervention to enhance community, family, and individual protective factors identified**
- o **Models for increased local control of the research process for indigenous communities.**
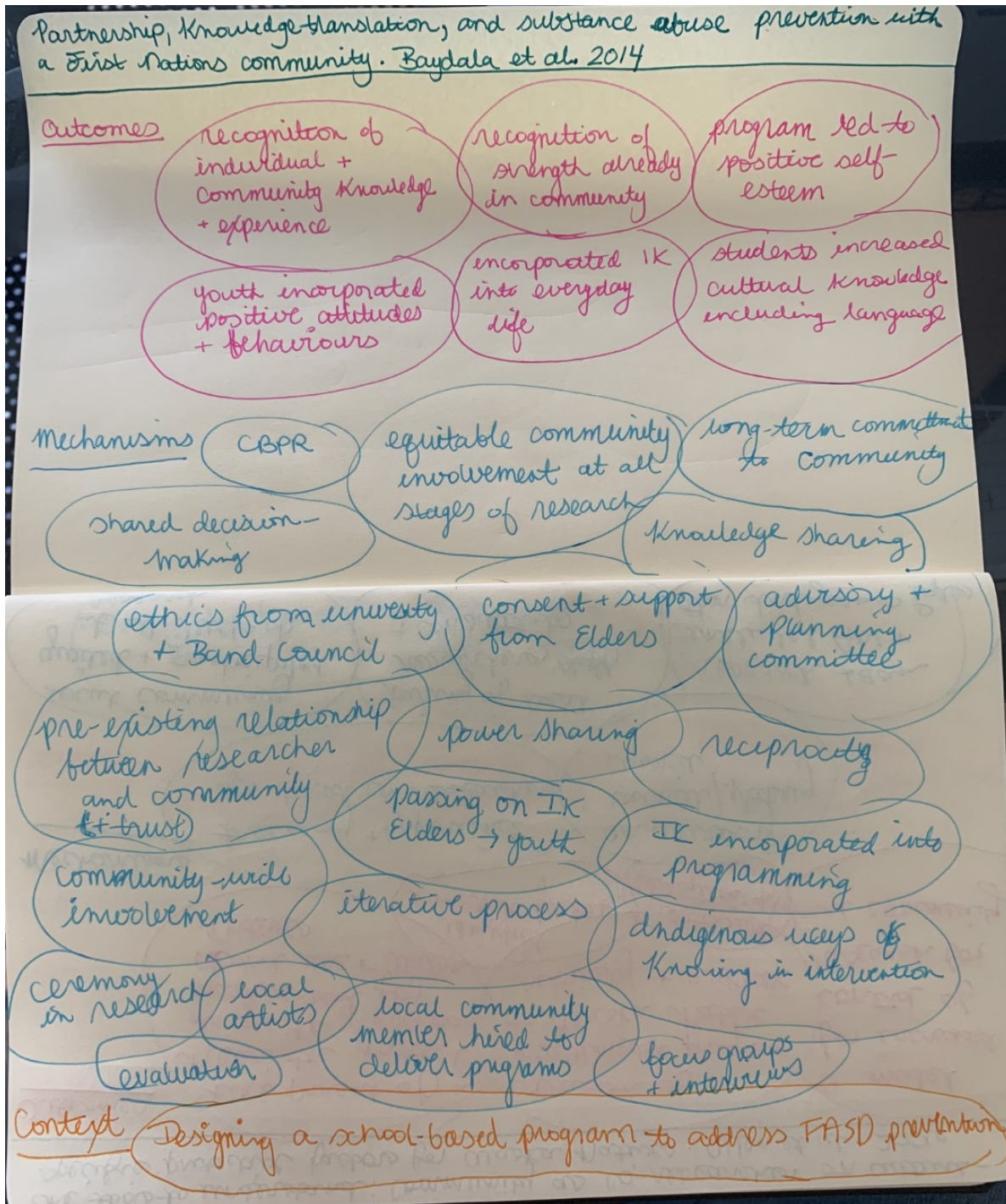
PARTNERSHIPS, KNOWLEDGE TRANSLATION, AND SUBSTANCE USE PREVENTION WITH A FIRST NATIONS COMMUNITY. BAYDALA ET AL. 2014

CONTEXT

MECHANISM

School-based Program

FASD Prevention

CPBR
↓
FOCUSED GROUPS + INTERVIEWS

COLLABORATION

ELDER

ART

IK

YOUTH

4R's

OUTCOME

INCREASE OF
+CULTURAL KNOWLEDGE
+STRENGTH IN Community
+Community KNOWLEDGE
+SELF-ESTEEM, POSITIVE Attitude, & Behaviours.
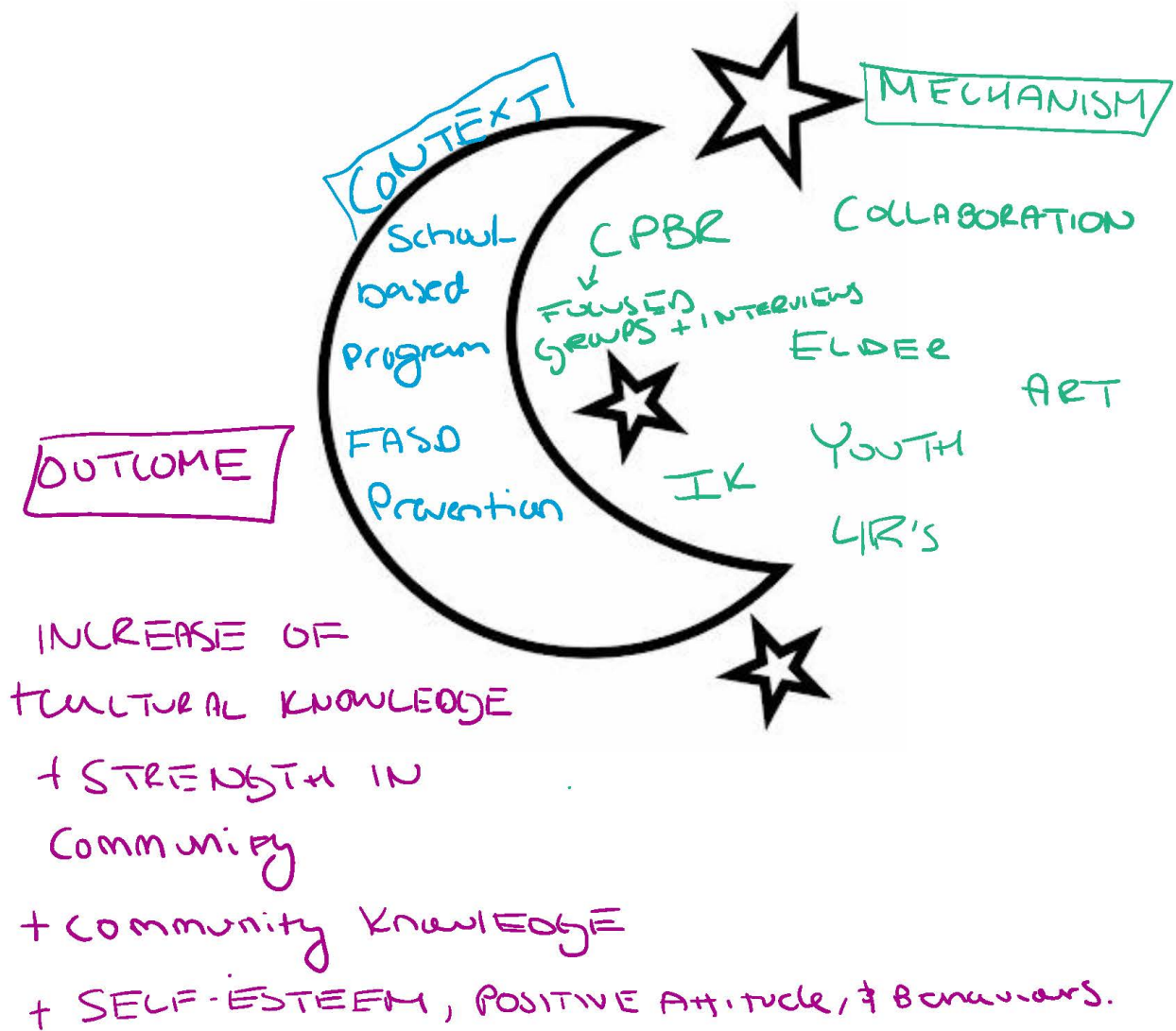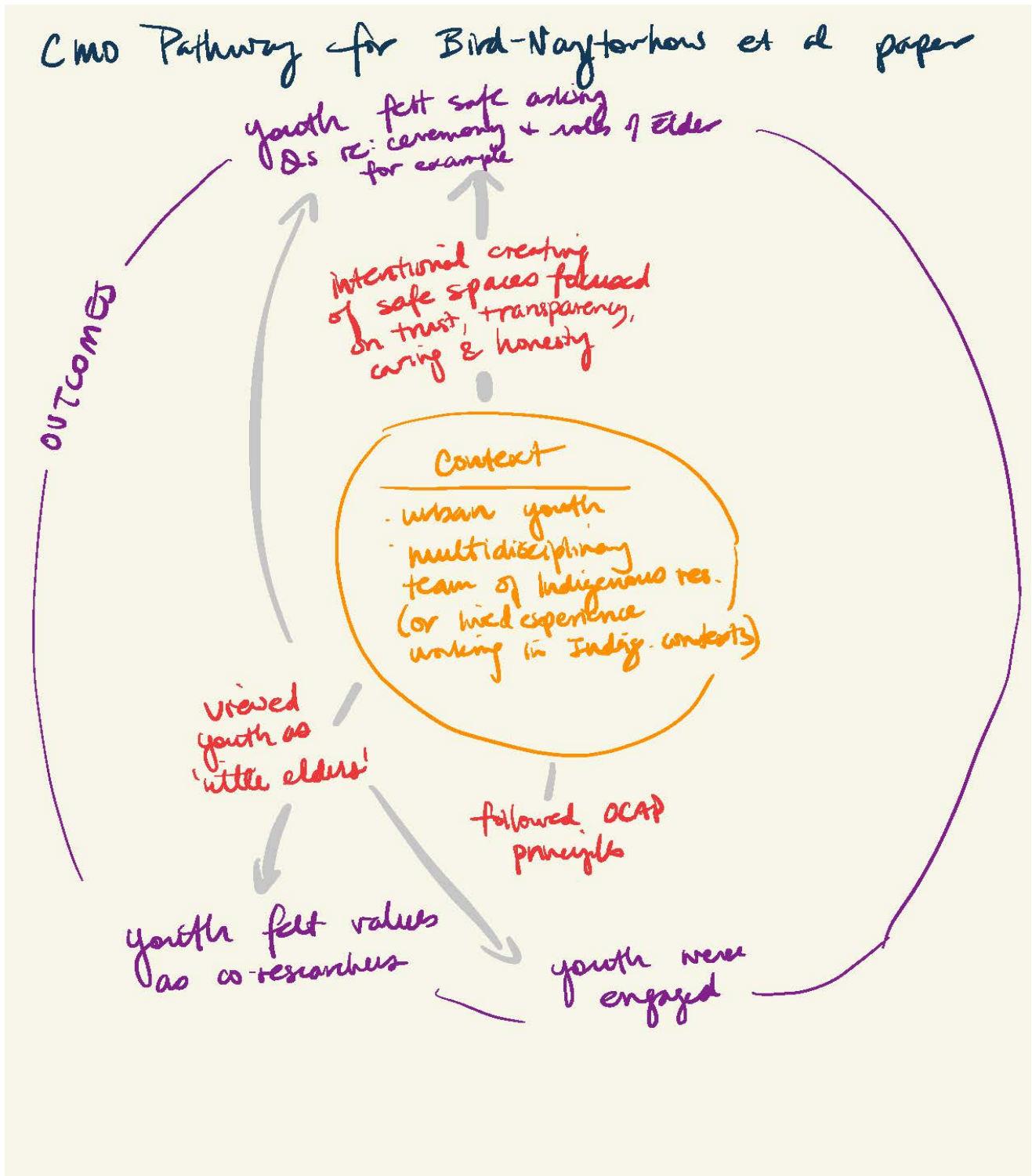
## CONTEXT

**Identifying the knowledge, resources, and capabilities required to support the health and wellbeing of urban Indigenous youth**

## MECHANISMS

**Ceremonies of relationship**

**Youth involvement**

**Youth as co-researchers and collaborators**

**Youth taking direction and ownership of the research**

**Traditional cultural practices and knowledge systems are respected and incorporated**

## OUTCOMES

**Art mural is created and shared/enjoyed**

**Community is engaged (with the mural and the research)**

**Youth perspective is shared**

**Relationships are formed and deepened**

**Recognition that youth possess the tools and knowledge to support their wellbeing**

# "Ceremonies of Relationship" Article
## CMO Pathway - Bird. et. Al.

### 2° Outcome:
supportive +
encouraging
relationship
building
- youth
empowerment

**1 Outcome**
- seeing from
their vantage
point
• where the
resilience lesson
↟ was learned
4 researchers

→ 3° Outcome
a eyed seeing
- TK + WK
~~youth~~

**Western Frameworks**
- C.B.P.R.
- P.A.R.
- C.E.S

**Trad. Frameworks**
- Visiting
- Building
relationships
· Respect

**Method**
photography
+
**Capacity Enforcement**
+ Building
↟

┌─────────────────────────────────┐
│ Context                         │
│                                 │
│ Adding ceremony to KT           │
│ + relationship building w/      │
│ youth, etc.                     │
│ - ethically involved youth      │
│ + what that means for           │
│ youth engaged research          │
└─────────────────────────────────┘

**Method**
**Ceremony**
**Corresponding**
w/ Seasons
↓

**1° Outcome**
- creating spaces
where IK is primary
- allowing for connections
youth might not be
able to access.
- celebration of indigeneity
~~over~~

↳ **2° Outcome**
- Circle space helped
ground in safety

↳ Method
**Circle Space**
↳ 1° Outcome
- youth as collaborators
- empowerment + value
↳ 2° Outcome
- respect
-
↳ Allowed for
- "Little Elders"
showing youth
the importance
of their voices
newpoints, existences

# ~ CEREMONIES OF RELATIONSHIP ~

## CONTEXTS

~ YOUTH RESILIENCE PROJECT
  – youth co-researchers
~ Co-constructed ceremonies
  of relationship.
~ "Two-eyed seeing"
  western/IK combined
~ KB "all activity that
  links decision makers
  with researchers,
  facilitating their
  interaction"

## CONTEXTS

~ Indigenous ontology
~ knowledge as relational
~ cultural/spiritual
  practices from Plains
  Cree perspective
~ "research as ceremony"

## CONTEXTS

~ P.A.R / CES / C.BRR
~ CARC – 2 Indigenous
  parents, 2 older youth,
  & 2 Elders
~ TRC / residential
  schools
~ IK to forefront
~ decolonize
~ directly involve
  participants / practical
  real way

## MECHANISMS

~ CONVERSATIONAL
  Method / Talking
  circles.
~ decolonizing methods
  break down power
  hierarchy
~ story telling
  (photo-elicitation
~ dissemination, transfer
  & exchange of
  knowledge
~ trust / transparency
  caring / honesty
~ "little Elders"

## MECHANISMS

~ OCAP
~ SMUDGING
~ CONSULTATION
  WITH YOUTH & ELDERS
~ CEREMONY - Tobacco
  offering
~ OPTIONAL PARTICIPATION

## MECHANISMS

~ CARC meetings
~ Youth voices in
  consultation
~ Talking circles
~ meal sharing
~ story-telling
~ sweat lodge
~ photovoice
  Project

## OUTCOMES
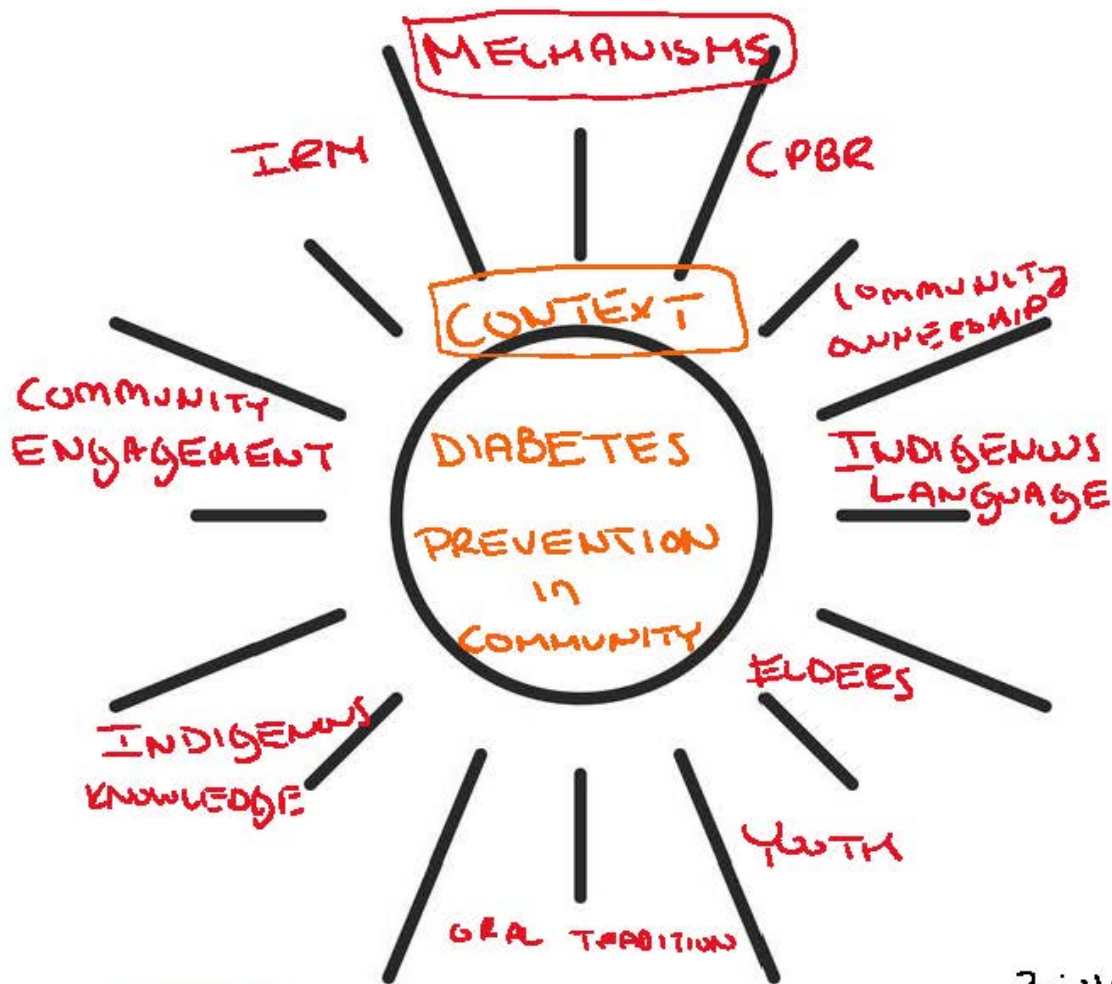~ building relationships
& positive visions
  of youth

## OUTCOMES
~ approaching
a community
using their
ethical
standards &
cultural
protocols

## OUTCOMES
~ opening safe spaces
for our wider community
& civic engagement

LEGITIMIZING DIABETES AS A COMMUNITY HEALTH ISSUE: CASE ANALYSIS OF AN ABORIGINAL COMMUNITY IN CANADA. BISSET 2004
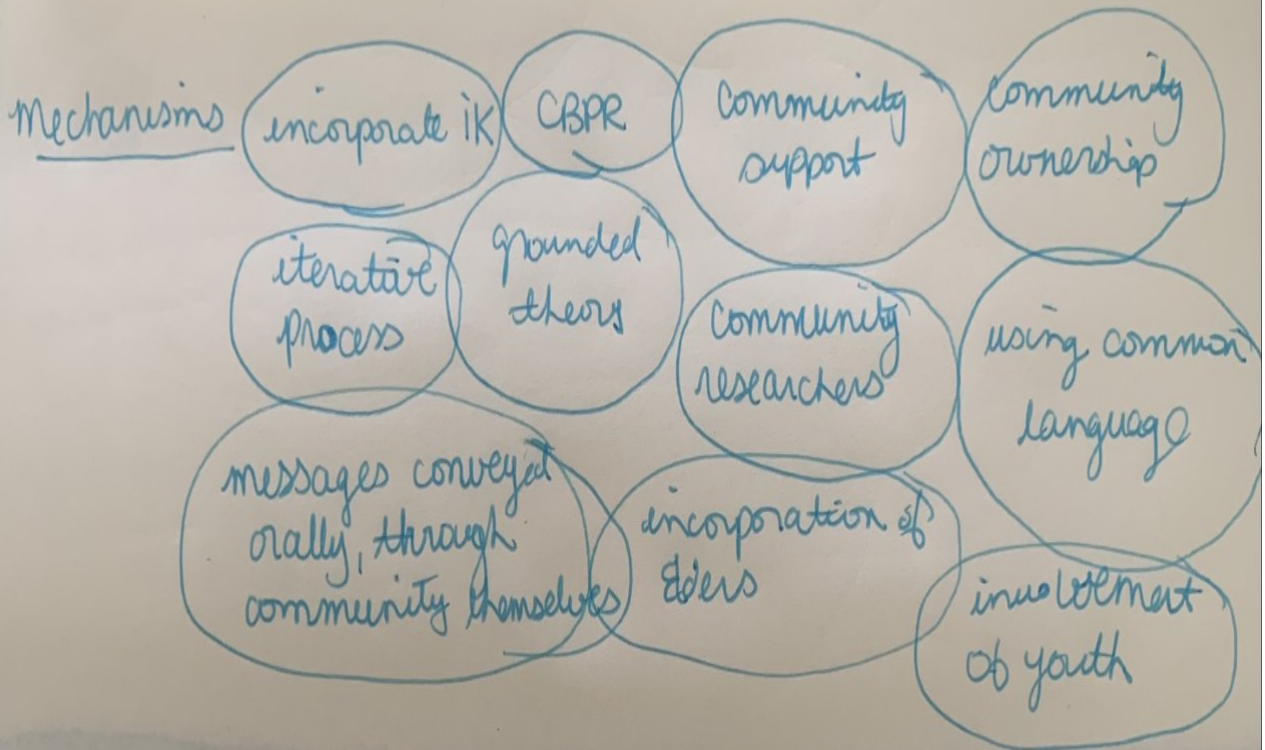


By: NIKKI H.

# Legitimizing Diabetes as a Community Health Issue: A case analysis of an Aboriginal Community in Canada. Bisset 2004

**Outcomes** shift in collective thinking → diabetes is preventable

**Mechanisms**

- incorporate IK
- CBPR
- Community support
- Community ownership
- iterative process
- grounded theory
- Community researchers
- using common language
- messages conveyed orally, through community themselves
- incorporation of Elders
- involvement of youth

**Context** ⟶ desire to prevent diabetes in the community

Blanchet Cohen, et al. **Moving towards Indigenous Centred Perinatal Care in Quebec**.

## CONTEXT

- Indigenous Peoples' experience of mainstream health care systems has been filled with individual and systemic discrimination
- current lack of knowledge about Indigenous women and Indigenous-led initiatives in Quebec
- growing number of Indigenous women moving to urban centres calls for new arrangements to improve health services
- Indigenous mothers are more likely to experience mental health problems during pregnancy and postpartum than non-Indigenous mothers

## OUTCOMES

- ability to act directly on own health according to Indigenous values with better access to resources
- strengthened relational support network of families and young children leading to increased self-esteem and confidence in parenting/motherhood
- decision to produce an illustrated storybook told by a kokum

## MECHANISM

pilot initiative designed and delivered by community; emphasis on cultural safety and wholistic approach; provision of safe, ethical space; relational approach + emphasis on co-creation; IK (Medicine Wheel and Two-Eyed-Seeing and more)

In this figure, 'context' has been illustrated by a mother figure to indicate both historical and contemporary contexts of Indigenous ways of being, knowing, and parenting (the ways in which they came to know motherhood). 'Outcomes' was assigned to the child figure to indicate the promise of and potential for full, healthy Indigenous childhoods and child/parent relationships.

'Mechanism' emerges from the held hands, indicating that love, support, kinship, and all our relations contribute to the creation of healthy mothers, families, and communities.
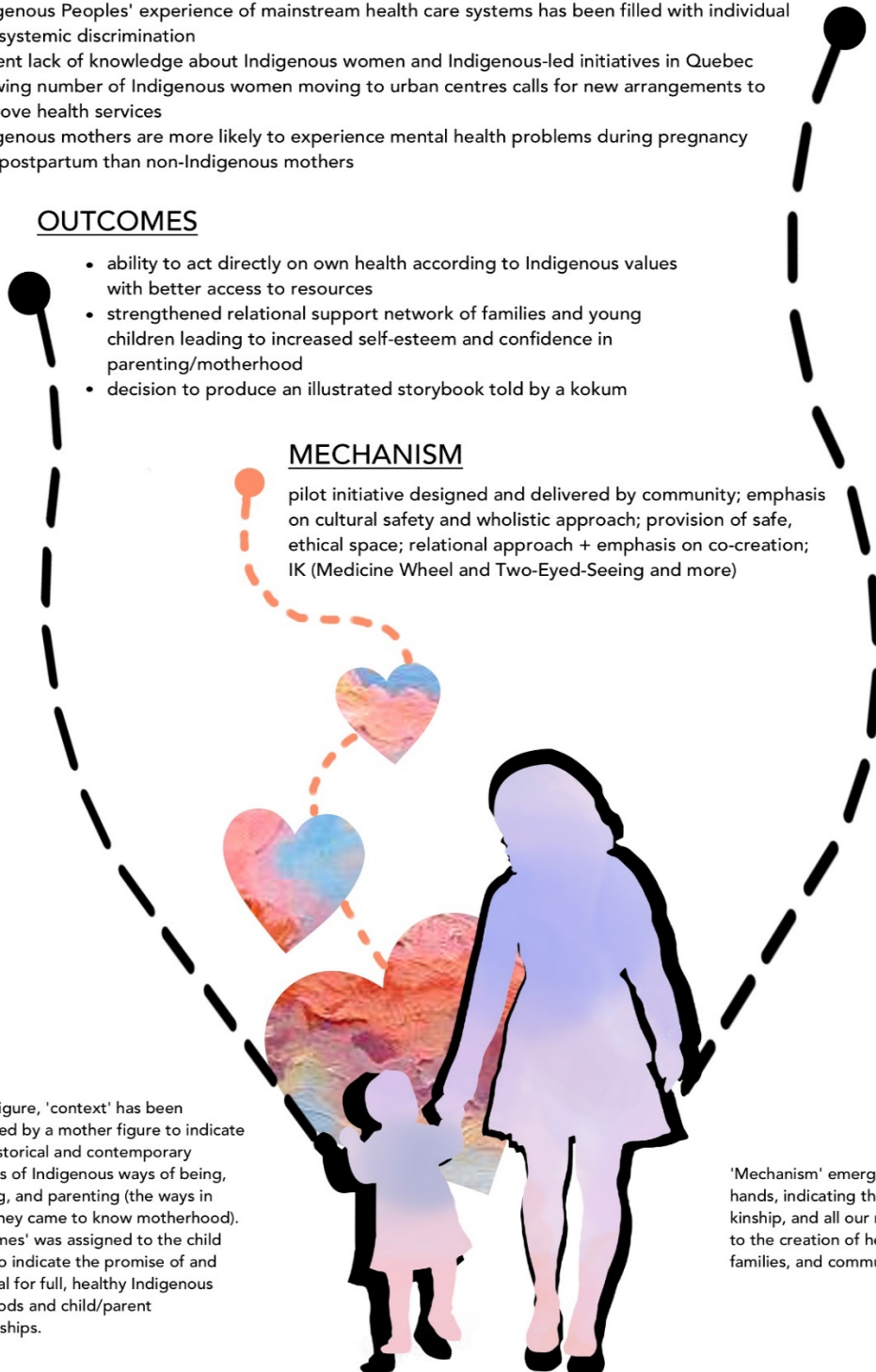
CONTEXT: Promoting an emergence and relevance of a model of perinatal care resulting in Mino Pimatisiwin (a wholistic view of well-being).

GOALS: To support children's well-being in a culturally safe way; to value Indigenous Knowledges, increase positive parental experiences, create support networks, and promote healthy lifestyles.

Respect
Relationality
Reciprocity

Creating safe spaces

Self-reflection & self-location

Strengths-based

Co-creation & Indigenous led initiatives

Incorporating Indigenous Ways of Being into the program

**Development of a wholistic model of perinatal care**

Situating support within the broader context of lived realities

Integrated approaches

Centring relationships & supporting social networks

Incorporating advocacy

Developmental Evaluation

Valuing Indigenous Ways of Being

PERINATAL CARE FOR YOUNG MOTHERS IN URBAN QUEBEC

CULTURE

SYSTEMIC RACISM

VULNERABILITY

FAMILY

COMMUNITY DISCRIMINATION

INDIGENOUS KNOWLEDGE

MENTAL HEALTH

INDIGENOUS-LED

BUILD/FOSTER MEANINGFUL RELATIONSHIPS

INTERVIEWS WITH COMMUNITY

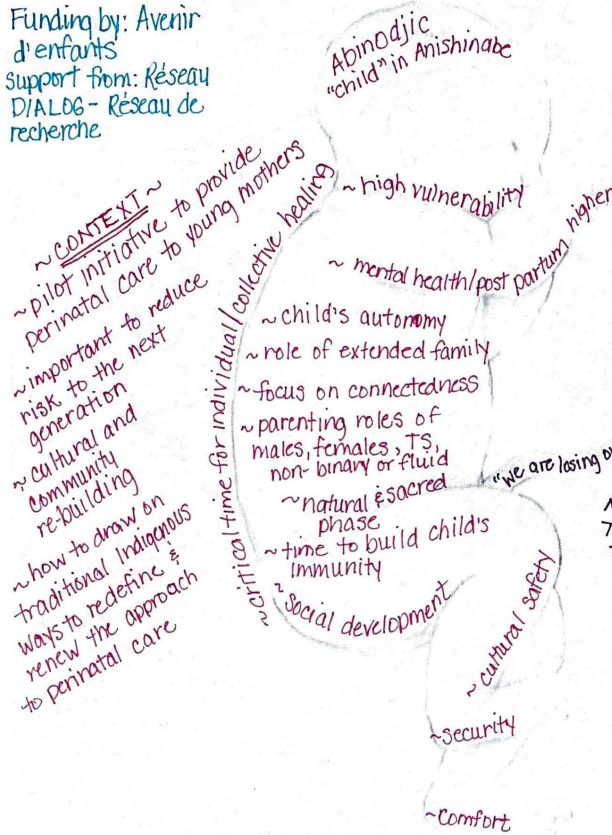SOCIAL INNOVATION

MEDICINE WHEEL

TWO-EYED SEEING

COMMUNITY

MOTHERS

FAMILY

HEALTH CARE

PILOT INITIATIVE

0-2 yrs old

SUPPORTIVE ENVIRONMENTS

DEVELOPMENTAL EVALS

CULTURAL SAFETY

ECOSYSTEM APPROACH

MOTHERHOOD

SELF ESTEEM

INDIGENOUS KNOWLEDGE

BEING ADVOCATES

WHOLISTIC APPROACH

RELATIONAL SUPPORT

INDIGENOUS VALUES

N.H.P.

BLANCHET-COHEN ET AL.

# MOVING TOWARD INDIGENOUS-CENTRED PERINATAL CARE IN URBAN QUEBEC ~ BLANCHET-COHEN, et. al.

Abinodjic "child" in Anishinabe

## ~ CONTEXT ~
~ pilot initiative to provide perinatal care to young mothers
~ important to reduce risk to the next generation
~ cultural and community rebuilding
~ how to draw on traditional Indigenous ways to redefine & renew the approach to perinatal care

~ high vulnerability
~ mental health/post partum higher

~critical time for individual/collective healing

~ child's autonomy
~ role of extended family
~ focus on connectedness
~ parenting roles of males, females, TS, non-binary or fluid
~ natural & sacred phase
~ time to build child's immunity
~ social development
~ cultural safety
~ security
~ comfort

"we are losing our values... before they linked to wear moccasins... one walks within them... because one can be in contact with Earth"

"I DO NOT WANT MY CHILD TO LOSE THESE VALUES, THEY ARE ATIKAMEKW"

## ~ MECHANISMS ~
~ Abinodjic: An Initiative for Perinatal care
~ designed/delivered by Val-d'Or Native Friendship Centre (VDNFC)
~ create welcoming, supportive & empowering conditions for pregnant women & children 0-2 yrs. old.
~ guided by three elements: ecosystemic approach, social innovation, & cultural safety
~ organized around four target groups (mothers, family, community, practitioners)
~ developmental evaluations (DE)
~ Indigenous led projects/methodology
~ relationship building/safe spaces for reflection/dialogue/fundamentals
~ interviews with community members

## ~ OUTCOMES ~
~ Emergence & Appropriateness of a wholistic Approach (circular model - not linear)
~ Mino Pimadisi8in (overall health)
~ Capteur de vie "life catcher"
~ Valuing Indigenous Ways of Being - incorporating into program
~ Abinodjic allows us to act directly on our health according to our values as First Nations
~ Being Advocates - whether for individual or more broadly in the social & health systems
~ raising awareness about historical wrongs and fostering rapprochement.

Val D'OR FRNDSPCN
continue the prog...

# Moving Towards Indigenous Centered Perinatal Care in Urban Quebec

- 3yr Community-University partnership

[Developmental Evaluation of progress for implementation of appropriate + effective care!]
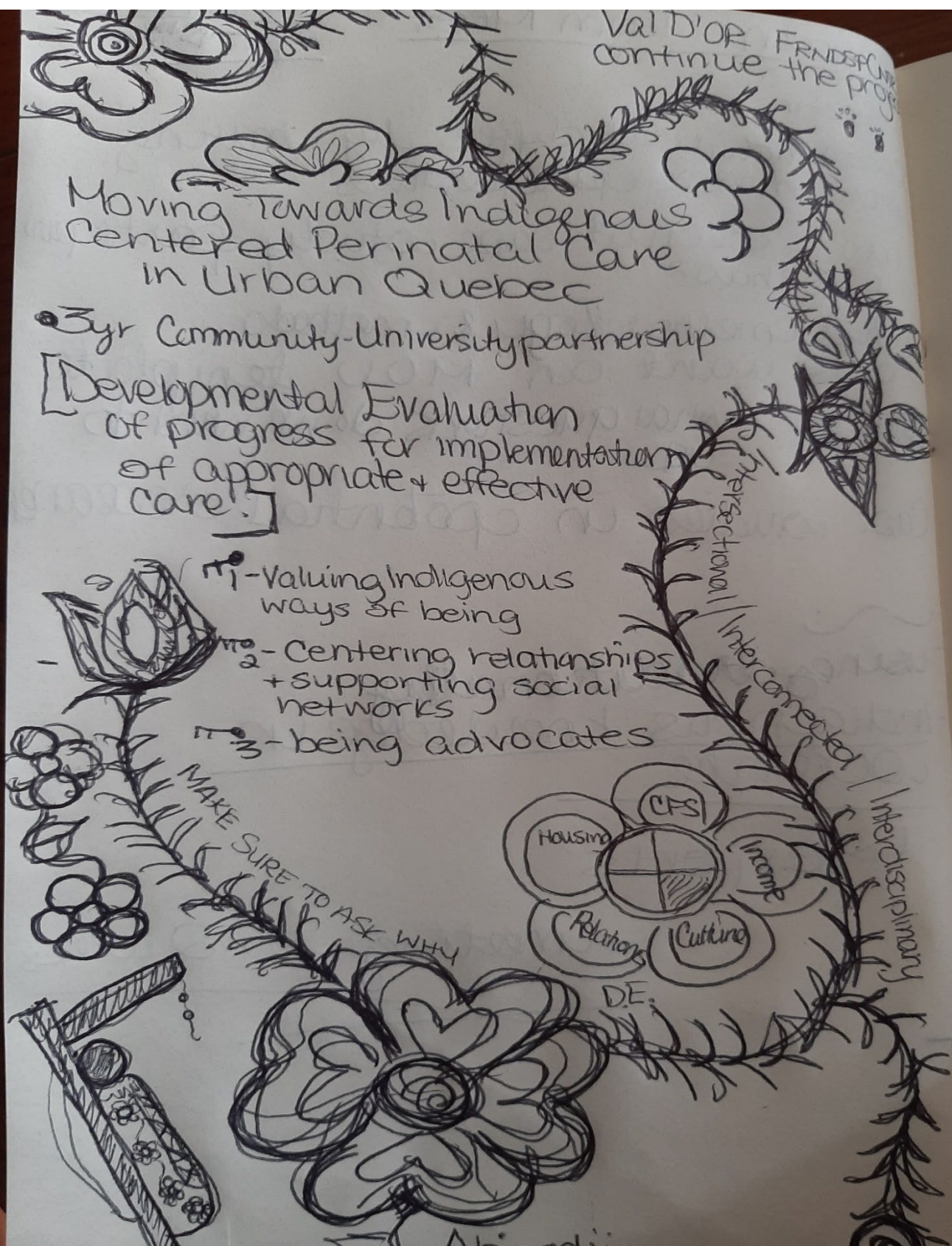
π1 - Valuing Indigenous ways of being

π2 - Centering relationships + supporting social networks

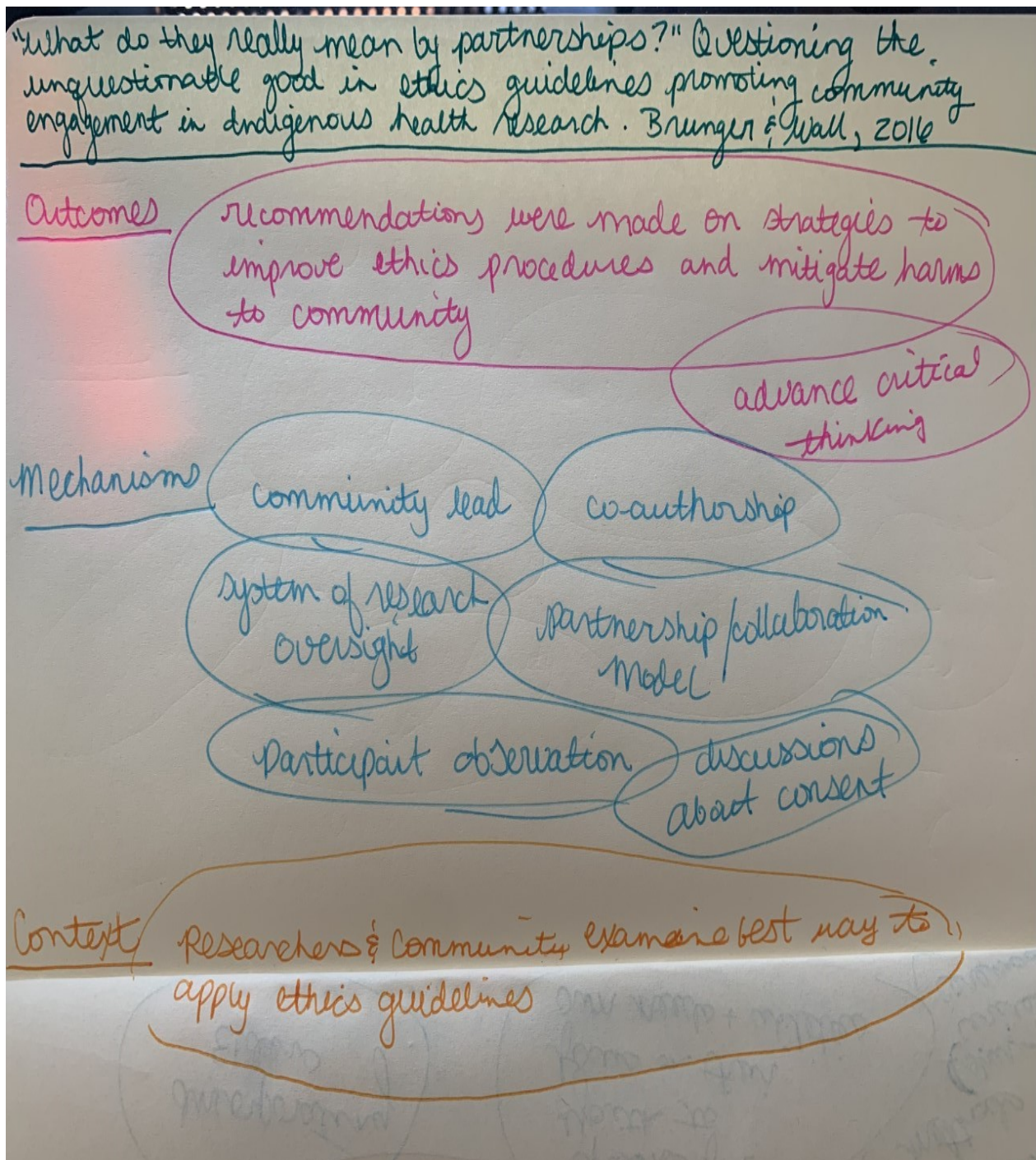π3 - being advocates

MAKE SURE TO ASK WHY
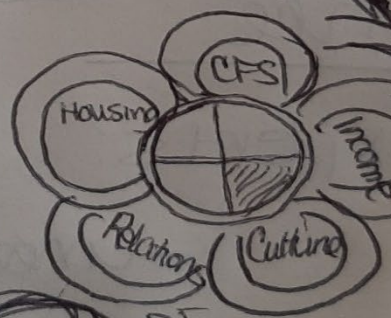
Intersectional // Interconnected // Interdisciplinary

CFS
Housing
Income
Relations
Cutting

D.E.

Handwritten concept map:

**Title:** "What do they really mean by partnerships?" Questioning the unquestionable good in ethics guidelines promoting community engagement in indigenous health research. Brunger & Wall, 2016

**Outcomes**
- recommendations were made on strategies to improve ethics procedures and mitigate harms to community
- advance critical thinking

**Mechanisms**
- community lead
- co-authorship
- system of research oversight
- partnership/collaboration model
- participant observation
- discussions about consent

**Context**
- Researchers & community examine best way to apply ethics guidelines

# "What Do They Really Mean by Partnerships?" Questioning the Unquestionable Good in Ethics Guidelines Promoting Community Engagement in Indigenous Health Research

## CONTEXT

- Newfoundland and Labrador—legislation establishing a provincial Health Research Ethics Authority
- Compliance with the Tri-Council Policy Statement (TCPS)
- conduct a "natural experiment" to determine how best to implement and manage community consent, consultation, and collaboration in health research
- authority and representation are complex
- the requirement for consultation is enforceable by provincial law
- to three Aboriginal groups: the Innu First Nation, the northern Inuit (of Nunatsiavut), and the Southern Inuit (formerly known as the Labrador Metis).
- research harms associated with ineffective research relationships are experienced and described by community leaders
- "Research fatigue," a concept that has a broader meaning than "over-researched."

## METHODS

- understandings of the risks of health research to communities—understandings held by community members as well as by scientists and ethics reviewers
- not neutral or value free; they are deeply embedded in, shaped by, and in turn actively shaping culture and relations of power.
- employed and simultaneously researched a partnership model.
- we privileged the authority of community "lay" members as knowledge producers.
- two research sub-teams: a NunatuKavut-based team and an academic team.
- 4-year period, community work was prioritized, and the academic work was driven by the community team.
- participant observation research was supplemented by 30 key informant interviews conducted by Brunger with a wide range of stakeholders related to research ethics and Labrador Aboriginal communities
- Data analysis was done by the community-based team and the PI.
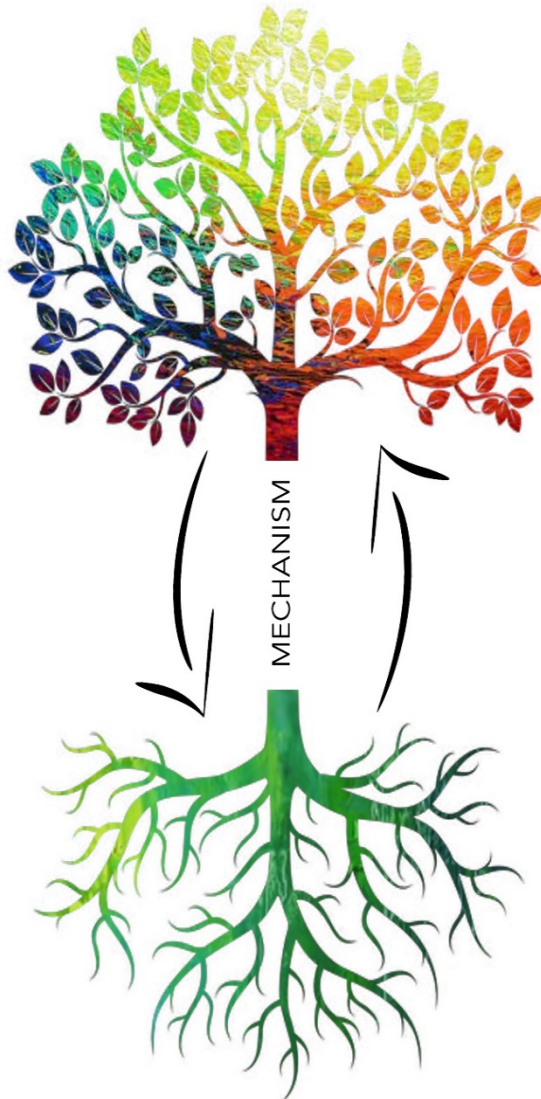- All work to be done with community members

## OUTCOMES

- The Tri-Council Policy states that "In geographic and organizational communities that have local governments or formal leadership, engagement prior to the recruitment of participants would normally take the form of review and approval of a research proposal by a designated body."
- Ensure that research involving NunatuKavut peoples & lands is conducted in a manner that is appropriate to the spiritual, cultural, social, and environmental context of NunatuKavut; in keeping with the needs, expectations, and values of NunatuKavut; compliant with the principles of OCAP (ownership, control, access, and possession); and approved by an REB
- The community RAC has the option of refusing the research outright if it does not fit with the community's available resources and priorities.
- REB/RAC - the REB-type aspect or the consent-type aspect of the RAC (*review and consent aspect*) process
- there is a need for funding to communities to offset the costs of community engagement.
- to offset the burden of the community RAC review itself, university REBs should liaise and negotiate with communities to ensure that the burden of the ethics review falls to the REB, freeing the community RAC to attend to the principles of OCAP, appropriateness of the proposed research to the community, and consideration of the existing research burden on the community in relation to identified research priorities.
- Researchers unknown to a community should not be approaching the community without an introduction through an established researcher. There should be no "cold calls."

**O**

- Inclusion - youth felt welcomed and accepted
- Accessibility
- Disconnection/Reconnection - experiences of disconnection pre-retreat, retreat helped them feel reconnected
- Inspiration
- Transformation
- Teachings - land-based activities and oral narratives provided teachings on relationships to the land including fire, ceremonies, and medicine

**M**

- Land-based retreat rooted in IRM/IK/the centring of Indigenous worldviews
- (Indigenous) Youth involvement as collaborators
- Emphasis on community voices, partnership and ethics, kinship networks and traditional/cultural teachings revealing the interconnectedness of relationships
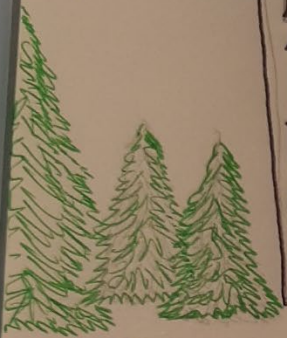
**C**

- Limited knowledge gathered about the impacts of land-based teachings on Indigenous youth
*Indigenous land-based experiential living/learning is happening outside a research-based context*
- Dissociation of Indigenous Peoples from ways of being/relating to land tied to colonization, assimilation, and land theft
- Urban and rural Indigenous youth, largely disconnected from community, are looking for ways to reconnect to their cultures
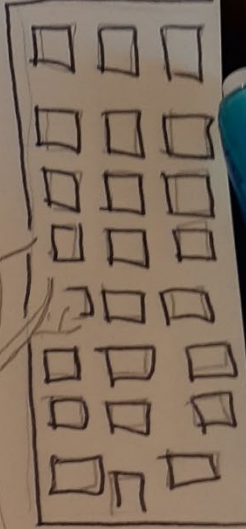
windows are how we are
isolated from one another

Buildings are
assimilation,
colonization, violence

the windows
in this
building are
not "in place"
and are not
conforming to
settler Canadian
ways of knowing

INCLUSION  ACCESSIBILITY  TEACHINGS  DISCONNECTION  TRANSFORMATION

DOCUMENTING
LAND BASED
TEACHING OUTCO
FOR LGBTIQ2S+ YOUT

-the trees
are ancient
knowledge
systems

- this tree
shows how
that knowledge
has been
impacted +
how it is
waiting
reawakening

-the sacred
fire burning
away feelings
of shame +
exclusion
bringing
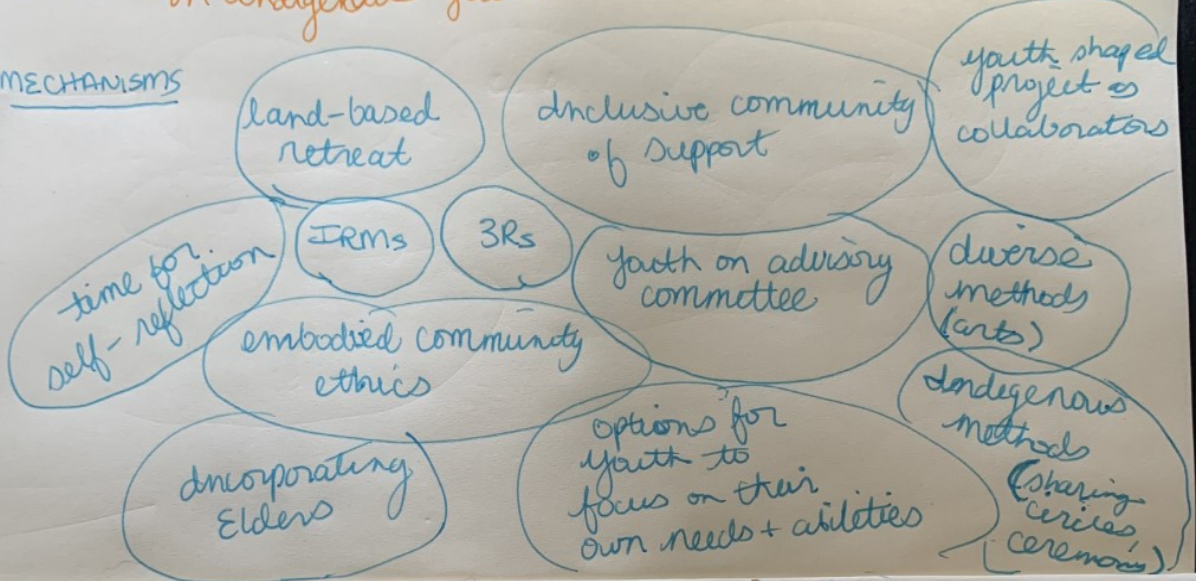everyone
together
at the
home fire

SHAME    EXCL

-each tipi pole is a theme from the study
    - inclusion - accessibility - teachings - disconnection
    - RECONNECTION - Transformation
- the door pegs rep the things that enabled this - Supportive
ELDERS, SPACE that is safe, non-judgemental, welcoming
- the bottom pegs represent the youth, land, elders, knowledge
safety, ability to participate + be heard and empowerment
- with tipi wrapping around signifying that they were
surrounded w/ love + culture.

# Restoring Our Roots: Land-Based community by and for Indigenous Youth. Fast et al. 2021
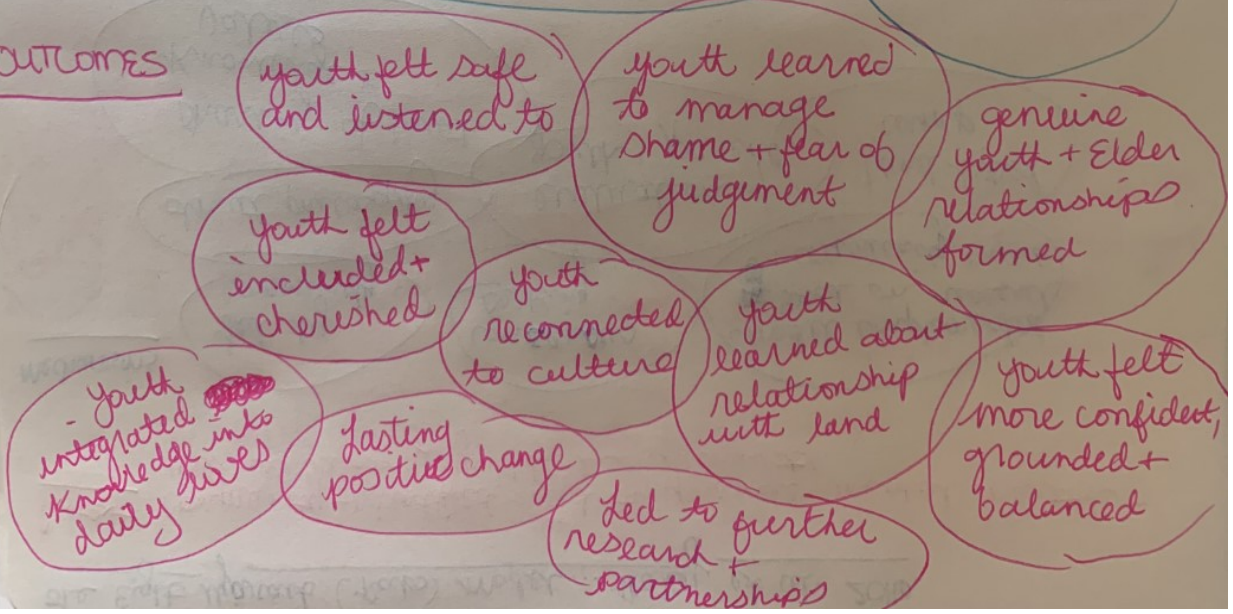
**CONTEXT** Investigating the impacts of land-based teachings on indigenous youth
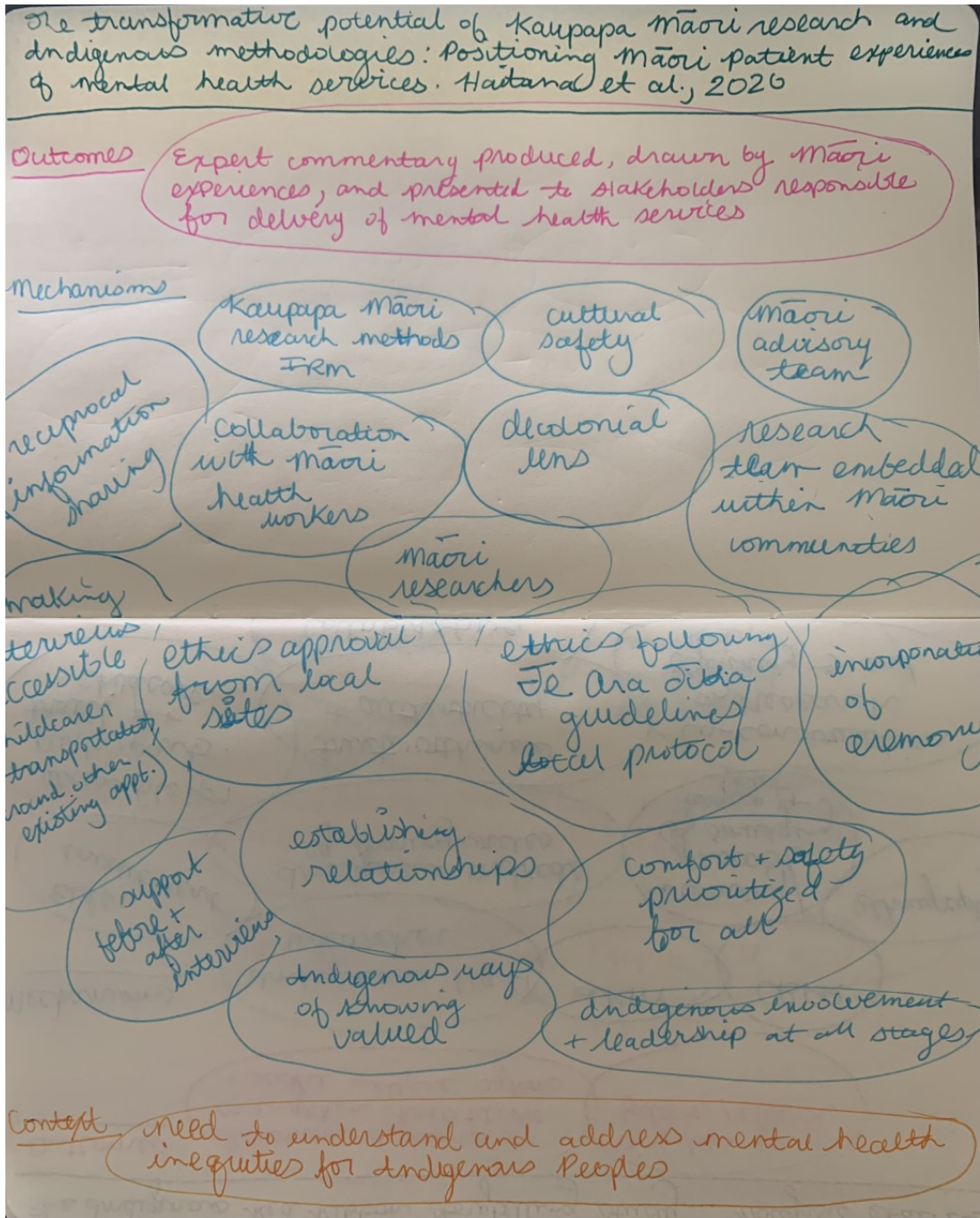
## MECHANISMS

- land-based retreat
- Inclusive community of support
- youth shaped project as collaborators
- time for self-reflection
- IRMs
- 3Rs
- Youth on advisory committee
- diverse methods (arts)
- embodied community ethics
- Incorporating Elders
- options for youth to focus on their own needs + abilities
- Indigenous method (sharing circles, ceremonies)
- sharing + incorporating Indigenous knowledge
- focus on strengths + resilience

## OUTCOMES

- youth felt safe and listened to
- youth learned to manage shame + fear of judgement
- genuine youth + Elder relationships formed
- youth felt included + cherished
- youth reconnected to culture
- youth learned about relationship with land
- youth felt more confident, grounded + balanced
- youth integrated knowledge into daily lives
- Lasting positive change
- Led to further research + partnerships

# The Transformative Potential of Kaupapa Maori Research and Indigenous� Methodologies: Positioning Maori Patient�‾ Experiences of Mental Health Services

## (Haitana et al., 2020)



**Understanding and addressing widespread mental health inequities (bipolar disorder (BD)), affecting Indigenous peoples.**

- Face-to-face meetings with key Maori stakeholders in planning stages
- Semi-structured interviews: Whakawhanaunga-tanga (establishing relationships through reciprocal information sharing) – Support before & after interviews.



- Kaupapa Maori Research is an Indigenous methodological framework steeped in foundations of matauranga (encompassing Maori knowledges, worldviews, perspectives and practices) designed to guide and inform approaches taken to research
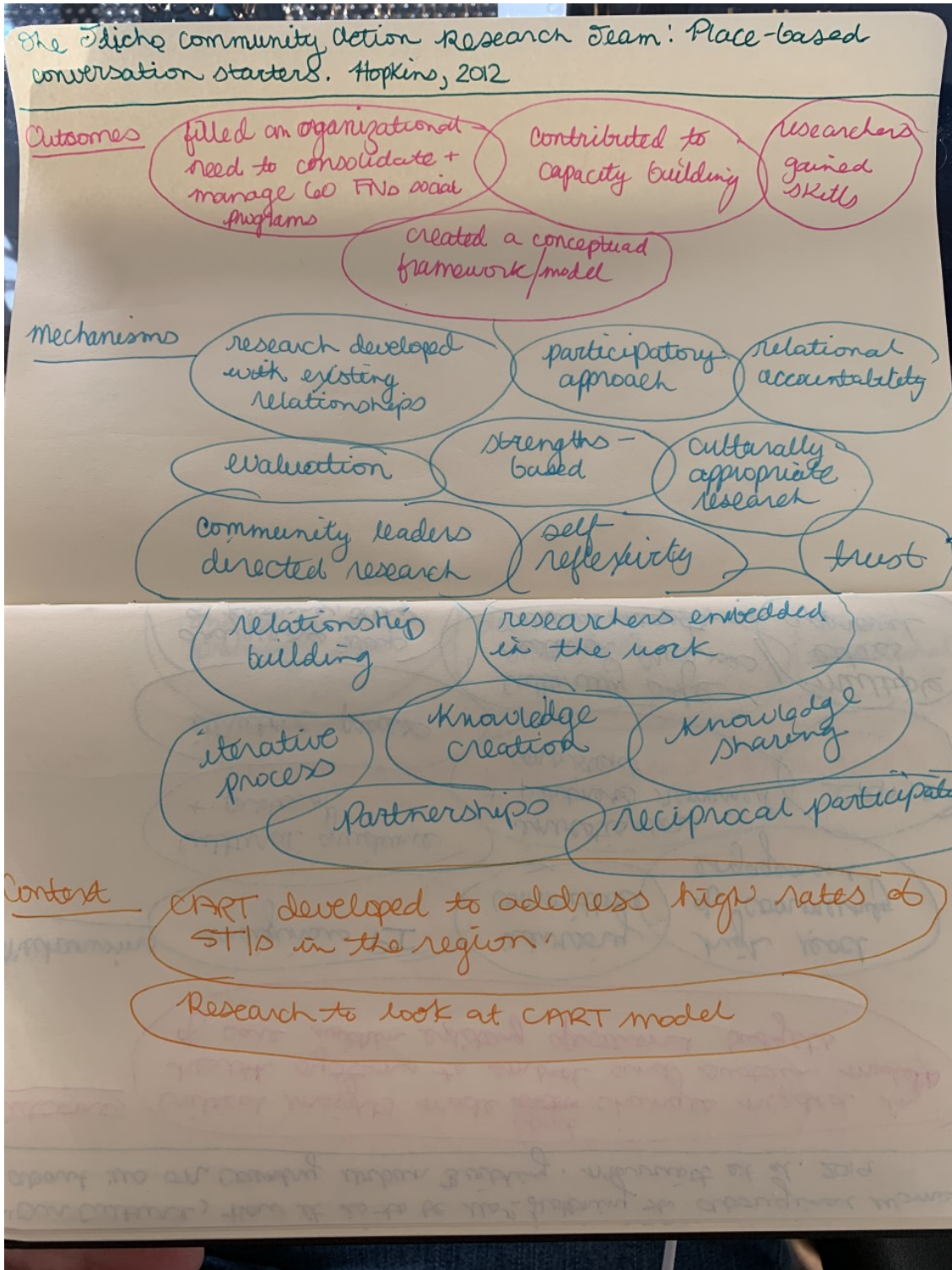- Maori Interviewers
- Indigenous Knowledge valued
- Cultural Safety
- Respect
- Mitigate Power Differential



- Experiences of Maori Peoples (experiences of mental health systems; critique of the design and delivery of mental health services; and ensuring equal weight exploring the clinical, structural and organizational changes required to achieve health equity) presented to stakeholders to improve mental healthcare to Maori Peoples.
- Illustrates the transformative potential of a specific Indigenous methodology, KMR, for investigating and addressing institutional racism within systems that cause and maintain widespread health inequities unfairly distributed among the world's Indigenous Peoples.

**The Tłįchǫ Community Action Research Team: Place-based Conversation Starters**

Susan Hopkins

The Tłįchǫ Community Action Research Team: Place-based conversation starters. Hopkins, 2012

**Outcomes**
- filled an organizational need to consolidate + manage 60 FNs social programs
- contributed to capacity building
- researchers gained skills
- created a conceptual framework/model

**Mechanisms**
- research developed with existing relationships
- participatory approach
- relational accountability
- evaluation
- strengths-based
- culturally appropriate research
- community leaders directed research
- self reflexivity
- trust
- relationship building
- researchers embedded in the work
- iterative process
- knowledge creation
- knowledge sharing
- partnerships
- reciprocal participate

**Context**
- CART developed to address high rates of STIs in the region.
- Research to look at CART model

# The Tłı̨chǫ Community Action Research Team: Place-based

## (Hopkins, 2012)

**CONTEXT**

CART created in response to high STI rates in NWT

Evaluation of the CART model

**mechanism**

- o **Participatory Action Research**
- o **Relationship Building = research built on existing relationships, community leaders**
- o **Knowledge sharing**
- o **Strength-based**
- o **Reciprocity**
- o **Relationality**
- o **Evaluation of work**

**outcome**

- o **Management of 60 FN social programs**
- o **Capacity Building momentum**
- o **Provided deeper understandings of the lived experiences of CART members the academic mentors, and organizational leaders**
- o **Development of a Conceptual Model**

**A Call to Wellness- Whitiwhitia i te ora: Explaining Māori and Occupational Therapy Perspectives on Health**
By Hopkirk & Wilson (2014)
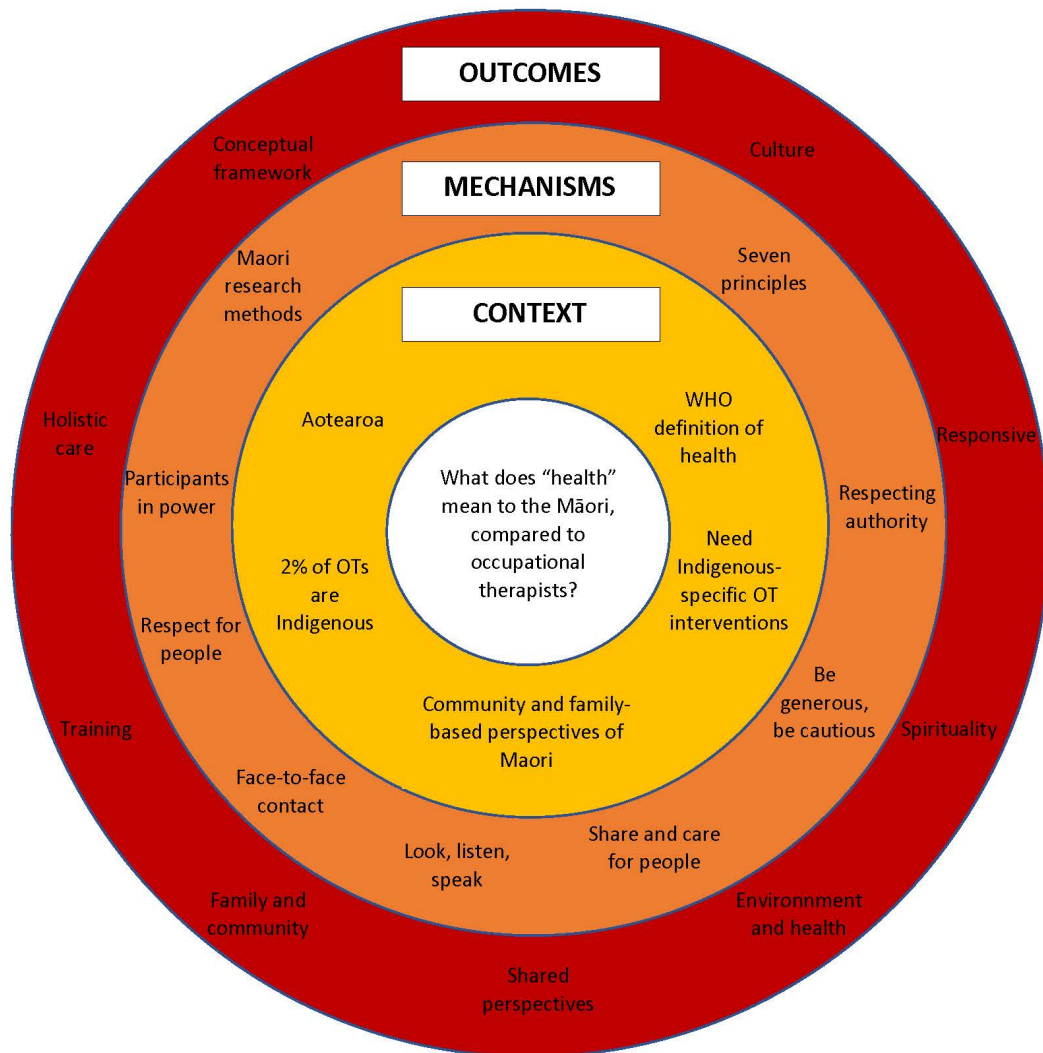
# A Call to Wellness – Whitiwhitia I te ora: Exploring Maori and Occupational Therapy Perspectives on Health

## (Hopkirk & Wilson, 2014)



**To understand and value Maori Indigenous knowledge and promote cultural safety in healthcare**



o **Maori Methodologies – to protect Maori knowledge**
o **Underpinned in the seven Maori principles of research**
o **Holistic View**
o **Face to face interviews**
o **Respect**
o **Reciprocity**
o **Relationships**
o **Cultural Safety**



o **A conceptual framework was developed to understand and guide cultural safe healthcare for Maori Peoples**

A call to wellness - whitiwhitia i te ora: Exploring Māori and occupational therapy perspectives on health. Hopkirk + Wilson, 2014

**Outcomes**
A conceptual framework was developed for safe and effective health practice with Māori

**Mechanisms**

Māori methodologies - design → analysis

respect for people

face-to-face interviews

reciprocity

cultural safety

real relationships established

**Context**
To understand + value IK in health practice and promote cultural safety

**Key informant views on biobanking and genomic research with Māori**. Maui Hudson, Kim Southey, Lynley Uerata, Angela Beaton, Moe Milne, Khyla Russell, Barry Smith, Phillip Wilcox, Valmaine Toki, Melanie Cheung, Waiora Port



Key Informant views on Biobanking and Genomic Research with Māori. Hudson et al. 2016

**Outcomes**
A recommended ethical guideline for research with Māori

**Mechanisms**
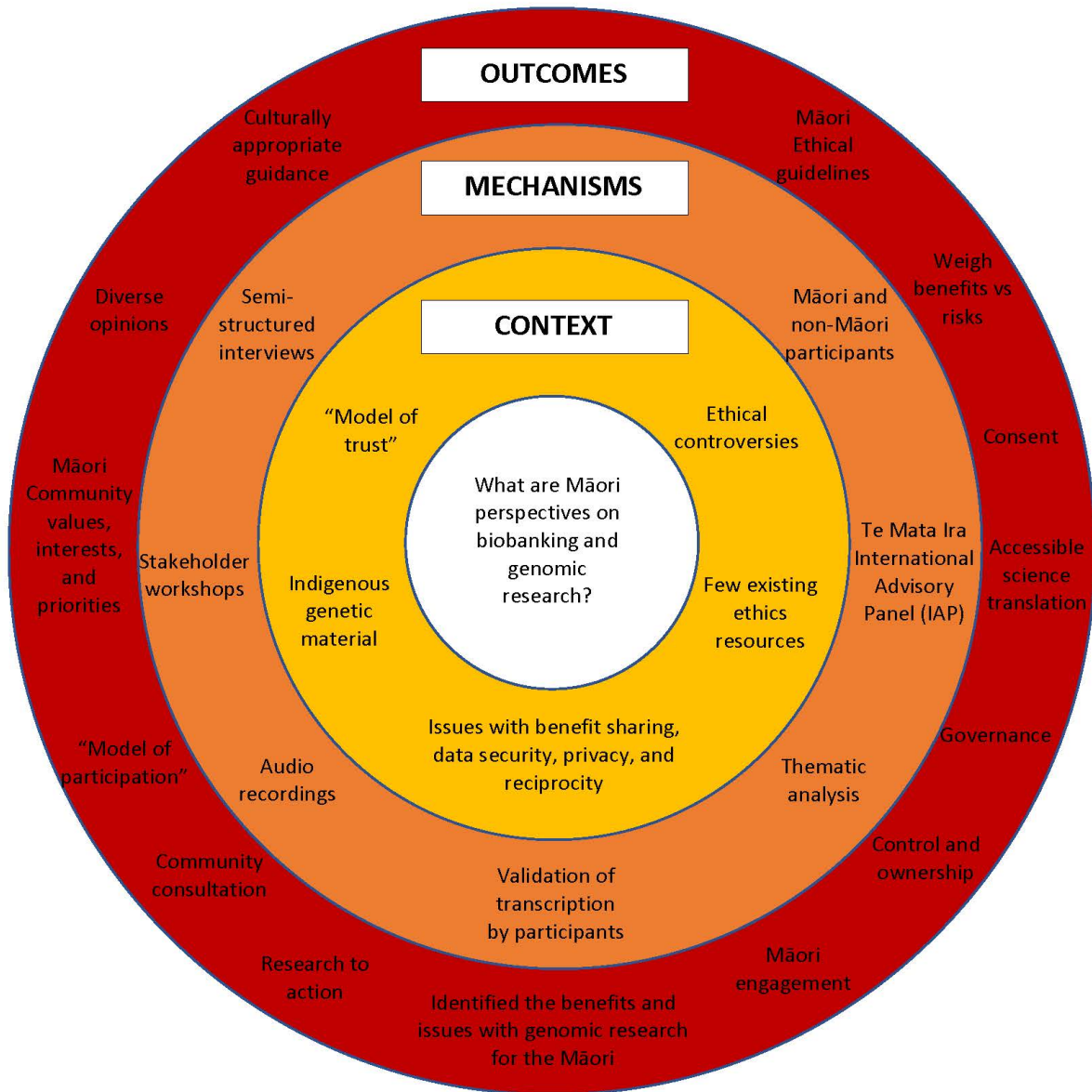interviews + workshops
advisory council
respect for Māori views

**Context**
To understand Māori views on genomic research

# Key Informant Views on Biobanking and Genomic Research with Māori
## By Hudson et al. (2016)



**OUTCOMES**

**MECHANISMS**

**CONTEXT**

What are Māori perspectives on biobanking and genomic research?

Culturally appropriate guidance

Māori Ethical guidelines

Weigh benefits vs risks

Diverse opinions

Semi-structured interviews

Māori and non-Māori participants

"Model of trust"

Ethical controversies

Consent

Māori Community values, interests, and priorities

Stakeholder workshops

Indigenous genetic material

Few existing ethics resources

Te Mata Ira International Advisory Panel (IAP)

Accessible science translation

Issues with benefit sharing, data security, privacy, and reciprocity

"Model of participation"

Audio recordings

Thematic analysis

Governance

Community consultation

Validation of transcription by participants

Control and ownership

Research to action

Identified the benefits and issues with genomic research for the Māori

Māori engagement

**Niyith Nniyith Watmam (the quiet story): Exploring the experiences of Aboriginal women who give birth in their remote community** Sarah Ireland, RM/N Hons, Concepta Wulili Narjic . Charles Darwin University: Graduate School of Health Practice, Darwin, Australia

Niyith Nniyith Watmam (the quiet story):
Exploring the experiences of Aboriginal
women who give birth in their remote
community.
Sarah Ireland 2009

### Context

- Location of childbirth, ensure infant's inheritance of cultural identity and belonging
- "Grandmother's Law"
- Sent over 500 km away to give birth – dissatisfied, repeated reviews to change system, noted cultural insensitivity with hospital birth
- Given drugs to stop contractions/standard practice is to go to hospital in late term and wait to give birth
- Investigate the beliefs and practices of Aboriginal women who decline transfers to urban hospitals to remain in community to give birth.
- National Health Medical Research Council (NHMRC) funded
- Ethics approval by Menzies School of Health Research Ethics Committee and sub-committee (specifically Aboriginal Research)
- Letters of support from community leaders, senior women, community health centre staff, Aboriginal healthcare workers, women's association reps, and other interested individuals

Mechanisms

- Concepta Wulili Narjic – paid to lead the research
- Aboriginal Methodology Research
- Informal semi-structured interviews, field notes, story telling, participant observation, and access to medical records
- 'Message sticks' word of mouth request, if responded, researchers were introduced to the participants – a show of respect among family members – kinship system 12 women agreed
- Consent given verbally and in their language
- Handwritten notes taken then read aloud to check for accuracy
- Three main themes and quotes to support those themes
- Preference to give birth at the community health centre rather than at home or camp

Outcomes

- Narratives show women (through experience) can make conscious decisions regarding their own health, the baby's health and designating men with a helping role during labour
- Concepta Wulili Narjic hired as traditional midwife
- Communities can access birth centre in Darwin
- Current model of maternity care that involves transfer for a planned hospital birth is associated with infringement of Women's business law
- Changes to the service model are seeing continuity in the urban setting
- Improvement towards culturally appropriate care

Photo by Australian Aboriginal photographer Bobbi-lee Hille

'Niyith Niyith Watmam (The Quiet Story): Ireland et al. 2011

**Outcomes**
- Changes to service model - more continuity
- improvement towards culturally appropriate care
- Local researcher hired as midwife
- Aboriginal women from remote comm. can access birth centre in Darwin

**Mechanisms**
- ethnography
- community co-researcher paid
- community initiated
- local reference group
- research co-designed
- IK as part of recruitment
- use of preferred language
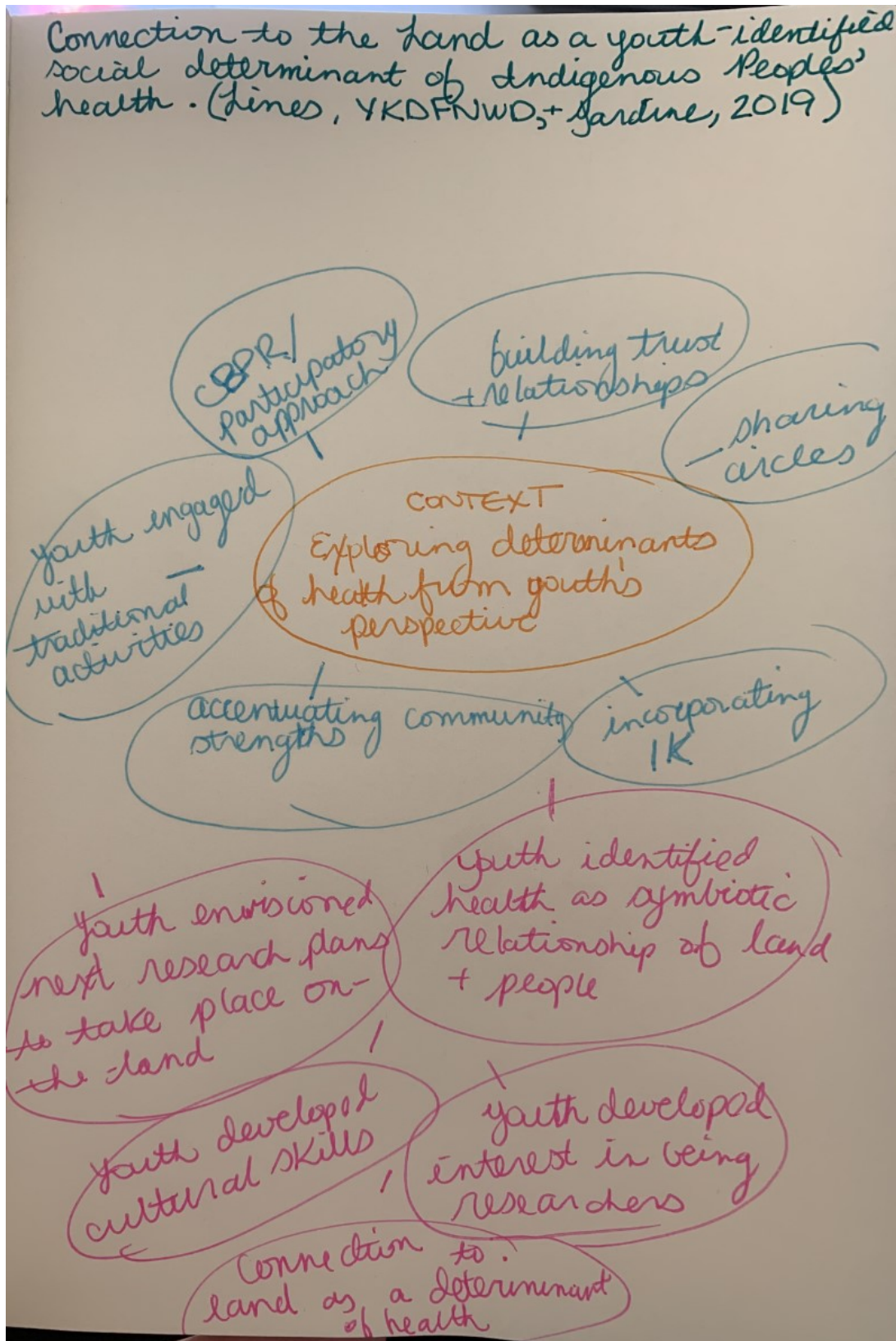- participants involved w/ checking for accuracy
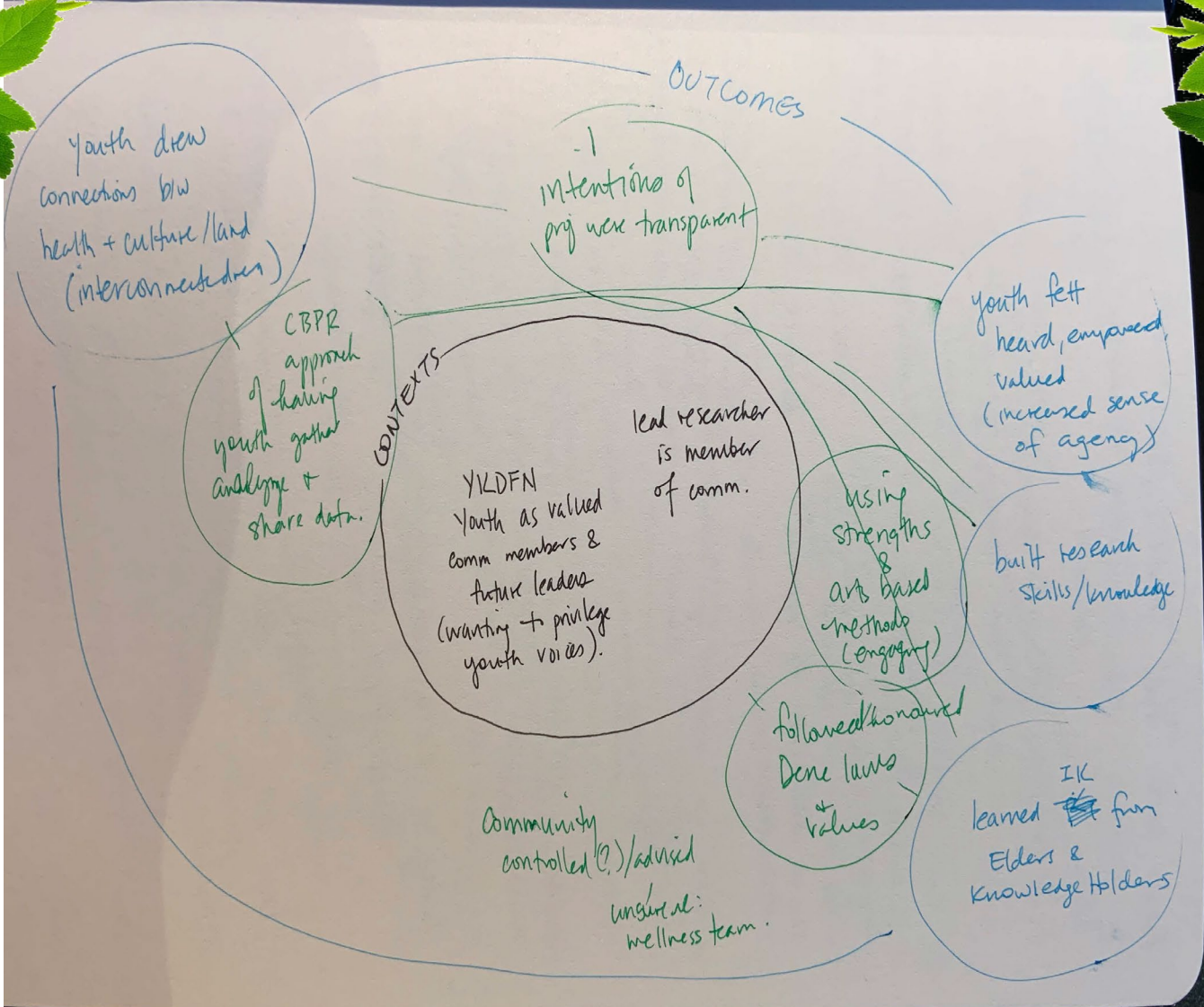- decolonisation + feminist theory as a lens for analysis

**Context**
- Investigating low #s of Aboriginal women accessing urban birthing centres

OUTCOMES

youth drew
connections b/w
health + culture/land
(interconnectedness)

Intentions of
proj were transparent

youth felt
heard, empowered,
valued
(increased sense
of agency)

CBPR
approach
of having
youth gather
analyze +
share data.

CONTEXTS

YKDFN
Youth as valued
comm members &
future leaders
(wanting to privilege
youth voices).

lead researcher
is member
of comm.

using
strengths
&
arts based
methods
(engaging)

built research
skills/knowledge

followed/honoured
Dene laws
+
values

IK
learned from
Elders &
Knowledge Holders

Community
controlled (?)/advised

unsure of:
wellness team.

# Connection to the land as a youth identified social determinant of Indigenous People's Health

*Laurie-Ann Lines, YKDN, & Cynthia G. Jardine*

## CONTEXT

- Yellowknives Dene First Nation (YKDN)
- Indigenous youth
- Simply being Indigenous is a social determinant of health
- Health is more than an individualistic, biomedical concept
- Determined by social contexts – home, income, education, stress, racism & food security
- Colonialism / IRS
- "What has worked in the past and what is the most appropriate community vision for future success?"
- Contemporary re-articulation of traditional egalitarian practices that recognize the central role of youth in the health & vitality of the community

### Questions:

- What are the perspectives of the YKDFN youth on health, health issues, and health priorities?
- How do YKDFN youth understand the factors that determine their 'health' or 'being healthy' with their community? What factors do they think are important?
- What are the perspectives of YKDFN youth on their role in future health research?

### Relationships

- Laurie-Ann Lines – academic researcher is also a member of YKDFN
- Dr. Cindy Jardine – supervisor to Laurie
- YKDFN Wellness Division
- Community and traditional knowledge holders

## METHODOLOGY

- Community based participatory approach (CBPR)
- Indigenous research lens
- Indigenous methodology - relationality
- Decolonizing CPBR approach
- Indigenous Knowledge systems
- YKDFN Communities – Ndilo and Dettah
- Cultural camps
- Leadership skill development
- SHOWeD process – photos most representative/audio recording
- Brainstorming – presenting participants perspectives in metaphoric format
- Longer survey

## OUTCOMES

- Youth identifying importance of the land
- Practicing cultural skills
- Youth voicing health as a symbolic relationship of land and people
- Future health solutions taking place on the land
- Being healthy within a community – symbiotic balance of land and people
- Building YKDFN culture, community relations, and traditional knowledge
- Connection to the land is a social determinant to health

**"Our culture, how it is to be us" — Listening to Aboriginal women about on Country urban birthing**

Rhonda Marriotta, Tracy Reibela, Juli Coffinc, Janinne Gliddond, Denese Griffinf, Melanie Robinsonh,, Anne-Marie Eadesi, Jade Maddoxg.

"Our culture, how it is to be us" – Listening to Aboriginal women about on Country urban birthing – Rhonda Marriott et. al. 2019

**Context**

- birthing On Country – mother's place of birth or father's
- Lack of evidence in literature about the birth practices
- 'urbanized' - Impact to traditional birth sites
- Birthing on Noongar Boodjar (BONB) project (5 yrs.) set out to understand Aboriginal women's perspectives related to pregnancy, childbirth, and how they manage their cultural needs during childbearing

**Outcomes**

- Summarized that Birthing on Country is highly urbanized but not diminished – it has been interrupted and altered
- All women reported importance of birthing on country – or close to home, connection to their cultural security
- Birthing women – access to Aboriginal staff and services, no segregation like senior women/elder women experienced
- Provided critical insights into the changes needed in health systems to embed and sustain models of care (racism)
- Increasing Aboriginal workforce in all roles in maternity services (midwives, doctors, nurses, etc.)
- Family support – generational support (extended family)
- All staff require exposure to experiences and knowledge providing them a pathway to ongoing cultural learning

**Mechanisms**

- BONB qualitative study designed using Indigenous theoretical concepts to frame culturally secure research processes
- Indigenist research practices/ 'Wongi mi bardup: doing it our way'
- Maintain cultural integrity/ensuring Aboriginal cultural knowledges and ways of seeing the world were the primary lenses through all data was interpreted.
- Aboriginal birthing, senior, and elder women were recruited and accepted
- Collect stories/storytelling is a well-established practice in many Indigenous cultures
- 'social yarning' – storyteller and story listener develop rapport based on cultural exchange
- Study, social, research, and collaborative 'yarning' were interchanged guided by relationship between participant and researcher
- Two yarning circles were held and resulted in the collection of individual Elder birth stories
- All yarns and yarnings were audio recorded, transcribed verbatim, and deidentified for analysis
- Separated women to delineate between past and present experiences and identify experiential changes reported across generations

# "Our Culture, How it is to be Us" - Listening to Aboriginal women about us on Country urban Birthing. Marriott et al. 2019

**Outcomes**

Critical insights made about ~~into~~ changes needed in health systems to embed and sustain models of care within existing operational budgets

**Mechanisms**

- Indiginous PI
- advisory committee
- high level of community engagement
- Cultural guidance + protocol
- investigators + partners remained consistent
- IRMS
- iterative process
- culturally safe research processes
- Cultural integrity
- multiple ethics approval
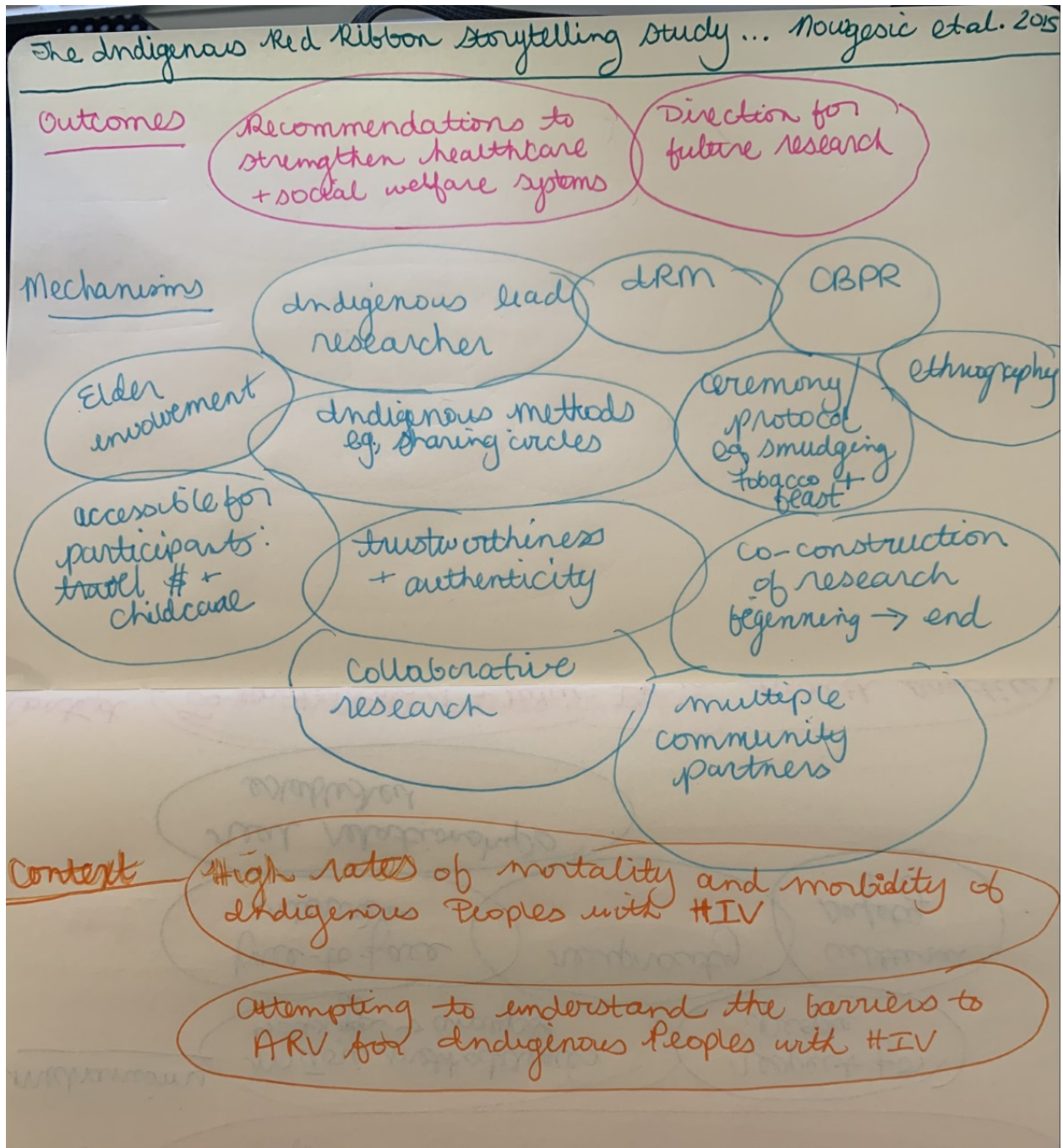- Indigenous ways of Knowing, Being and doing as primary lens
- decolonising research methods
- trust established

**Context**

To understand Aboriginal women's experiences of Country urban birth

**The Indigenous Red Ribbon Storytelling Study: What does it mean for Indigenous peoples living with HIV and a substance use disorder to access antiretroviral therapy in Saskatchewan**? p.27 Earl Nowgesic, Ryan Meili, Sandra Stack, Ted Myers



The Indigenous Red Ribbon Storytelling study ... Nowgesic et al. 2015

**Outcomes**
- Recommendations to strengthen healthcare + social welfare systems
- Direction for future research

**Mechanisms**
- Indigenous lead researcher
- dRM
- CBPR
- Elder involvement
- Indigenous methods eg. sharing circles
- Ceremony protocol eg smudging, tobacco + feast
- ethnography
- accessible for participants: travel $ + childcare
- trustworthiness + authenticity
- Co-construction of research beginning → end
- Collaborative research
- multiple community partners

**Context**
- High rates of mortality and morbidity of Indigenous Peoples with HIV
- Attempting to understand the barriers to ARV for Indigenous Peoples with HIV

# The Indigenous Red Ribbon Storytelling Study

## (Nowgesic et al., 2015)

**Context**

Saskatchewan
Indigenous Peoples less likely to access ARV therapy for HIV

↓

Examine how Indigenous peoples living with HIV construct and understand their experiences accessing antiretroviral therapy

**Mechanism**

- IK:
  "design = critical Indigenous qualitative research"
- CBPR
- IRM - 20 individual and two Indigenous sharing circle interviews
- Small Tobacco bundle and traditional feast offered to participants
- Elder open/close sharing circle and offered smudging
- Indigenous and Non-Indigenous Organizations
- Collaborative Research – 7 of 11 organizations had an Indigenous Rep.
- Research Partnership Agreement – Indigenous Self-Determination

**Outcome**

**Recommend strengthen social action support and healthcare resources to IPLWH and a substance use disorder:** Participants in our study felt they had to choose between living with their active substance use disorder and using ARV therapy.

**Directions for Future Research:** The first qualitative study in Canada that investigated access to ARV therapy exclusively. More inclusion of males/ Metis & Inuit Populations

**Letsemot, "Togetherness": Exploring How Connection to Land, Water, and Territory Influences Health and Wellness with First Nations Knowledge Keepers and Youth in the Fraser Salish Region of British Columbia**. Krista Stelkia, Lindsay Beck, Anita Manshadi, Ashlyn Jensen Fisk, Evan Adams, Annette J. Browne, Corrine Dixon, Diane McEachern, Wendy Ritchie, Shannon McDonald, Bonnie Henry, Namaste Marsden, Daniele Behn-Smith, Jeff Reading. International Indigenous Journal of Health. Published 2020-12-29. https://doi.org/10.32799/ijih.v16i2.33206
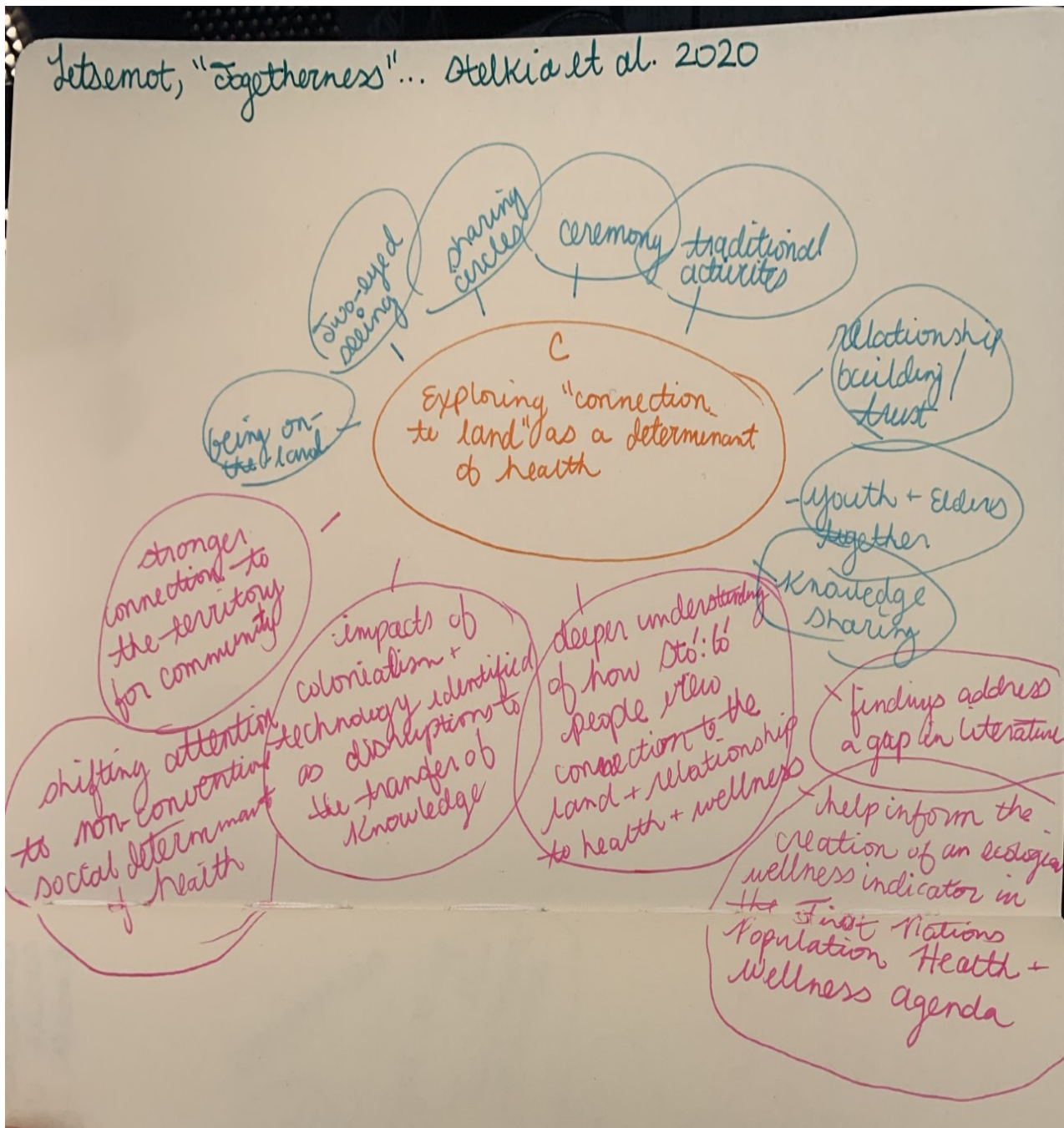
# Letsemot, "Togetherness"

## (Stelkia et al., 2020)

**Context**

**Connection to the land as a central determinant of health and well-being.**

"Wholistic" "Interconnected" "Spiritual" "Sacred"

**Mechanism**

⟶ Two-eyed Seeing Approach
⟶ Fraser Salish Region in BC "Sto:lo Nation."
⟶ Honour diverse perspectives of Nations within each region.
⟶ Sharing Circles with five FN Knowledge Keepers and five FN youth
⟶ Land-based Gathering and Paddling in Traditional Canoes
⟶ Welcoming Ceremony: Relationship and Trust Building

**Outcome**

**Interconnection**

**1) "the spirits of the land, water, and territory are within us": the intersection of cultural identity, spirituality, ancestral knowledge, and health and well-being**
- Strengths of identity and profound spiritual connections of land, water, and territory

**2) Letsemot, "togetherness": relationality**
- Participants expressed how a common belief for Stó:lō people is that everything is interconnected, and this concept was relayed in the word letsemot.

**3) Disruptions and new ways of living.**

- The impacts of colonialism and intergenerational trauma were discussed by participants as disrupting connections between family, land, and culture, including economic development, lack of education, children in care…