Received: 9 December 2023 | Accepted: 13 November 2024

DOI: 10.1002/imhj.22149

RESEARCH ARTICLE

WILEY

Co-creating a conceptual model of Indigenous relational wellbeing in early childhood: Planting seeds of connectedness

Chelsea A. Wesner[1] | **Deana Around Him**[1,2] | **Jessica Saniguq Ullrich**[3] | **Lisa Martin**[4] | **Nicole Denmark**[5] | **Helen Russette**[4] | **KyungSook Lee**[6] | **Michelle Sarche**[1] | **Nancy L. Asdigian**[1] | **Jessica Barnes-Najor**[1,7] | **Nancy Rumbaugh Whitesell**[1] | **the Tribal Early Childhood Research Center Early Relational Wellbeing Community of Learning**

[1]Tribal Early Childhood Research Center, Centers for American Indian and Alaska Native Health, University of Colorado Anschutz Medical Campus, Aurora, Colorado, USA

[2]Child Trends, Rockville, Maryland, USA

[3]Institute for Research and Education to Advance Community Health, Washington State University, Spokane, Washington, USA

[4]Johns Hopkins Center for Indigenous Health, Baltimore, Maryland, USA

[5]Administration for Children and Families, Office of Planning, Research, and Evaluation, Washington, D.C, USA

[6]Center for Alaska Native Health Research, University of Alaska Fairbanks, Fairbanks, Alaska, USA

[7]Office for Public Engagement and Scholarship, Michigan State University, East Lansing, Michigan, USA

Correspondence
Chelsea A. Wesner, Tribal Early Childhood Research Center, Centers for American Indian and Alaska Native Health, University of Colorado-Anschutz Medical Campus, 13055 East 17th Avenue, Mail Stop F800, Aurora, CO 80045, USA.
Email: chelsea.wesner@cuanschutz.edu.

This manuscript appears in *IMHJ*: Infancy and Early Childhood as part of an invited paper series focusing on early career scholars' intentional application of anti-racist frames and/or frames of diversity, equity, and inclusion in infant and early childhood mental health research. *IMHJ*: Infancy and Early Childhood thanks Guest Editors Iheoma U. Iruka, Marva Lewis, Fantasy Lozada, Sheresa Blanchard, and Lauren Wakschlag for their vision and work in this ongoing initiative.

Abstract

The purpose of this article is to share our story of conceptualizing Indigenous early relational wellbeing (ERW), specifically reflecting American Indian and Alaska Native worldviews. Our approach is grounded in Indigenous methodologies and guided by a Community of Learning comprised of Indigenous and allied Tribal early childhood community partners, researchers, practitioners, and federal funders. We describe the steps we took to conceptualize caregiver–child relationships from an Indigenous perspective, center Indigenous values of child development, apply an established Indigenous connectedness framework to early childhood, and co-create a conceptual model of Indigenous ERW to guide future practice and research. This model highlights relational practices as seeds of connectedness and relational wellbeing, and includes the roles of spirituality, culture, and ceremony in nurturing ERW; the manifestations of relational wellbeing across the lifespan; and the interdependence of relational wellbeing within communities and families, across generations, and with the environment. The model also informs the creation of a measure to understand practices that foster relational wellbeing among Indigenous children and families and their

Nancy L. Asdigian, Jessica Barnes-Najor, and Nancy R. Whitesell contributed equally as senior authors to this study.

The authors and their respective affiliations for The Tribal Early Childhood Research Center Early Relational Wellbeing Community of Learning group are presented in details in the appendix section.

Funding information
Administration for Children and Families, Office of Planning, Research and Evaluation, Grant/Award Number: 90PH0030

relationship to positive development, thus informing research, practice, and policy.

KEYWORDS
community engagement, connectedness, early child development, early relational wellbeing, Indigenous research methodologies

1 | INTRODUCTION

For millennia, Indigenous Peoples have shared knowledge and wisdom about relationships as the foundation for thriving children, families, and communities (Cajete, 2017; Day, 2014; Red Horse, 1997; Ullrich, 2019). As this wisdom has emerged in the Western literature over the last century, the important role of caregiver-child relationships has been central in fostering the health and wellbeing of young children (Fraiberg et al., 2018; Schore, 2001; Shonkoff & Phillips, 2000; Stern, 2018; Tolliver-Lynn et al., 2021). Children whose parents or primary caregivers[1] interact with them in positive and nurturing ways reap the benefits in their social and emotional development (Biringen & Robinson, 1991; Cassidy, 1994) and these benefits are long-lasting (Denham et al., 1991; Leblanc et al., 2017; Schore, 2001).

In contrast, the weight of adverse social and structural determinants of health on families with young children often disrupts these nurturing relationships in early childhood and can lead to delays in development and social-emotional skills, which also have lasting effects across the lifespan (Easterbrooks et al., 2012; Felitti & Anda, 2009, 2010; Garner et al., 2012; Mackes et al., 2020). Although nurturing relationships and secure attachment are often conceptualized between a primary caregiver and child, it is important to note cultural differences and conceptualizations of attachment and positive interactions that may reflect more communal and extended caregiving relationships (Choate & Tortorelli, 2022; Titcomb et al., 2019). These differences in attachment and communal caregiving relationships are especially pronounced between Indigenous and Western cultures across the globe (Morelli et al., 2017; Rogoff, 2003), underscoring the need for conceptual models and measures of early child development that reflect different cultural contexts and values.

2 | PURPOSE AND APPROACH

The purpose of this article is to share our story of co-creating a model of Indigenous early relational wellbeing (ERW)—from identifying important gaps in mainstream early childhood models and measures of positive child development to addressing those gaps with Indigenous methodologies and a Community of Learning (CoL) approach. We share steps along the way that include conceptualizing caregiver-child relationships from an Indigenous perspective, centering Indigenous values of child development, establishing a CoL, applying an established Indigenous connectedness framework of a child's relational identity to early childhood, and co-creating a conceptual model of Indigenous ERW (Figure 1) to inform future research and practice in this area.

2.1 | Indigenous research methodologies

Our approach and collective work are informed by Indigenous research methodologies, which prioritize relational worldviews and uplift Indigenous values, while also considering complementary Western knowledge and methods to answer research questions. An example of a methodology that informs our approach is the Māori metaphor for a braided river (He Awa Whiria), which describes the process of braiding two different but equal research paradigms and worldviews (Martel et al., 2022). As a metaphor, Martel et al. (2022) describe Māori and Western research approaches and worldviews as two independent streams that become connected through small tributaries and eventually converge into a more powerful river. This process is needed to weave together different perspectives and generate new ways of knowing (Martel et al., 2022).

Another example of an Indigenous methodology we apply is the two-eyed seeing approach, which assumes

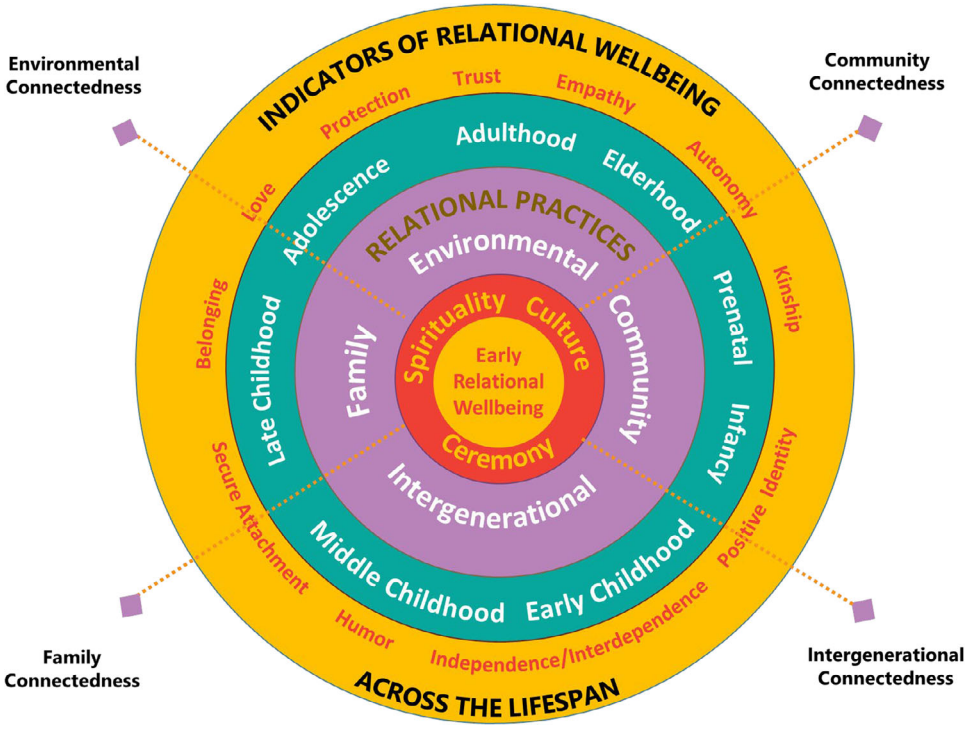

FIGURE 1 A model of Indigenous early relational wellbeing, which is an application of the Indigenous Connectedness Framework to early childhood.

Diversity and Anti-Racist Statement

Our research on conceptualizing and measuring Indigenous early relational wellbeing is led by considerations for diversity, racial equity, and justice by centering Indigenous values and ways of knowing about positive child development and engaging a Community of Learning in all phases of research—from conceptualization to dissemination. Developing and employing frameworks that are culturally grounded requires thoughtful, community-engaged conversations about positionality, accountability, respect, reciprocity, community benefit, inclusion of diverse perspectives, and about where and from whom data are collected. This process ensures values and priorities are identified with Indigenous communities and that results include implications for equitable policies, programming, and research.

there are diverse ways of knowing about the world and that one way or worldview is neither dominate nor definitive (Martin, 2012; Wright et al., 2019). Like the Māori braided river metaphor, two eyed seeing elevates and merges complementary Indigenous and Western theories, approaches, and methods while maintaining strengths of both. This paradigm values perspectives about the world and ways of knowing as constantly evolving, growing, and shifting rather than being static (Martin, 2012; Wright et al., 2019). These Indigenous methodologies reflect relational worldviews and are essential to deepening understanding of constructs like Indigenous ERW, which involves understanding how relational wellbeing is fostered in the earliest years and how those "seeds of connectedness" grow across the lifespan.

2.2 | Community of Learning approach

We use a CoL approach to guide our collaborative research, which aligns with Indigenous research methodologies and involves engaging members and representatives of diverse Indigenous communities to co-create knowledge. Our organization, the Tribal Early Childhood Research Center (TRC), is led by five partner organizations in close collaboration with its federal funding agency, the Administration for Children and Families (ACF). The TRC works in partnership with Indigenous early childhood programs funded by ACF—Tribal Head Start, Maternal Infant and Early Childhood Home Visiting (MIECHV), Tribal Head Start, Tribal Child Care and Development Fund, and Tribal Temporary Assistance for Needy Families (TANF) programs—to connect research to practice and

Relevance and Key Findings

- Positive and nurturing relationships are foundational to healthy child development and are widely measured in early childhood programs and research through observing parent-child interactions (PCI).
- Existing measures of PCI are designed for nuclear families and misaligned with relational worldviews and the way positive interactions with young children are conceptualized in many Indigenous communities.
- We developed a conceptual model of Indigenous early relational wellbeing (ERW) to address this difference in worldviews, inform the development of a culturally grounded measure of ERW, and guide future practice and research to understand positive child development in Indigenous contexts and communities.

Statement of Relevance to Infant and Early Childhood Mental Health

Culturally grounded models and measures of Indigenous early childhood development are sorely needed to inform practice, research, and policy. Although cultural adaptations are helpful and often necessary, they are insufficient when there is misalignment in constructs and worldviews. This research centers Indigenous values and acknowledges relational worldviews, providing a foundational framework for understanding positive child development in Indigenous communities and developing culturally relevant interventions and programs that endeavor to foster and promote early relational wellbeing.

undertake research in response to practice and community needs.

For nearly two decades, the TRC has drawn on a diverse network of partners, many with diverse representation from Tribal Nations across the United States and all with expertise in collaborating with Indigenous communities in early childhood research, evaluation, and practice. Many of these partners serve on the TRC Steering Committee, which includes more than 40 Tribal early childhood leaders, such as Tribal Head Start, Home Visiting, Child Care, and TANF program directors and staff; members of the ACF training and technical assistance network and national centers; Tribal evaluation partners; organizational leaders; Tribal college faculty; and academic researchers.

TRC research activities are shaped by and co-created with CoLs. As each new effort begins, the TRC draws on its partnership network of researchers, Tribal early childhood programs and organizations, and federal program staff to establish a CoL that will be engaged in all phases of the research project—from defining goals and priorities, to informing methodological decisions and implementation, interpreting results, and guiding dissemination of findings. CoLs are formed to include diverse expertise and lived experiences related to the TRC's areas of research interest and to bring together research, practice, and policy; Indigenous and non-Indigenous colleagues and allies; and individuals working with programs in Indigenous communities, academia, and federal agencies. This CoL approach has been effective in producing meaningful and useful research in the areas of early childhood development, education, and screening in Indigenous communities and contexts (Asdigian et al., 2022; Barnes-Najor, 2021; Barnes-Najor et al., 2021; Whitesell et al., 2022).

There are many forms of community-engaged research with Indigenous communities (Walters et al., 2019), including community-based participatory research (CBPR) (Wallerstein & Duran, 2017, 2006) and Tribal participatory research (Fisher & Ball, 2003). Although our approach aligns with principles of CBPR and Tribal participatory research, it is a different form of engagement. Our CoL approach is informed by Indigenous methodologies and engagement with a wide array of communities and representatives who serve Indigenous families and children. Moreover, this CoL approach is grounded in the conversational method, which generates knowledge from story (Kovach, 2010), as well as flexibility to ensure responsiveness to new directions and considerations that emerge from the CoL process.

Collectively, these approaches and methodologies aim to shift power, including decision-making and resources, in support of Indigenous agendas for cultural affirmation, nation building, and sovereignty. It is through this process that trust might grow within Indigenous communities who have experienced centuries of colonization, historical trauma, and some of the most egregious unethical research in the United States (Brockie et al., 2022). Promoting cultural safety, accountability, and sustainability in research with Indigenous communities is essential to re-establishing trust and fostering respect for Tribal sovereignty (Brockie et al., 2022).

3 | STEPS ALONG THE WAY

With an understanding of our grounding and approach, we now share steps along the way in our journey of co-creating a conceptual model of Indigenous ERW, and then discuss lessons learned and reflections from this process, which was iterative, collaborative, and informed by Indigenous knowledge, lived experiences, and academic literature representing Indigenous and Western contexts. We end with implications for how to use this model in community, research, practice, and policy settings.

3.1 | Conceptualizing caregiver–child relationships from an Indigenous perspective

Critical theory helps question societal norms and oppressions with an aim of achieving liberation. Using this approach, we examined the norms surrounding early childhood relational wellbeing, while also acknowledging the importance of positive caregiver–child relationships. The evidence that caregiver–child relationships can be improved through intervention is clear in the scientific literature, both with respect to non-Indigenous populations and, more recently, with respect to Indigenous populations (BigFoot & Funderburk, 2011; Connell & Prinz, 2002; Eyberg & Robinson, 1982; Eyberg et al., 2001; Funderburk et al., 1998; Julian et al., 2017; Olds, 2006; Pianta et al., 1997; Shonkoff & Phillips, 2000; Tolliver-Lynn et al., 2021). However, across this body of literature, caregiver–child relationships are largely conceptualized as the relationship within the parent–child dyad. Moreover, they aremeasured as parent–child interaction (PCI) and miss consideration of additional relationships that are important for early childhood development.

Tribal MIECHV programs run by federally recognized Tribes, Tribal consortia, Tribal organizations, or urban Indian organizations and federal staff have acknowledged concerns of cultural misalignment with validated measures of caregiver–child relationships and prioritized the need for culturally meaningful measurement of PCI and family relationships within Indigenous contexts (Walls et al., 2019; Wesner et al., 2024; Whitesell et al., 2018). Through an ACF cooperative agreement (2020-2025) with the TRC[2] and guided by awareness of Tribal MIECHV program concerns and ACF priorities, the TRC initially set out to develop a culturally grounded measure of PCI or adapt an existing measure, if appropriate, using best practices in culturally responsive measurement with Indigenous communities (Walls et al., 2019). After initial dialogue with community and federal partners, the TRC recognized that addressing this measurement gap required pivoting away from existing conceptualizations of PCI to explore a broader, more relational construct that reflects Indigenous values of child development as an initial step to measure development or adaptation.

Pivoting was important for two key reasons. First, we are not aware of any cultural adaptations of PCI measures that are specific to Indigenous communities within the United States. However, there is an extensive cultural adaption of PCI therapy (PCIT), most notably Honoring Children—Making Relatives, which integrates an Indigenous worldview and practices into existing approaches to PCIT (BigFoot & Funderburk, 2011). Although PCIT is related to PCI measurement, we are not aware of any PCIT adaptations that have included adaptation of the PCI measure itself.

Second, as we began trying to understand PCI within Indigenous contexts, it became clear that there is misalignment between the construct of PCI discussed in the child development literature and the way positive interactions with young children are conceptualized in many Indigenous communities. This misalignment at the construct level, or measurement disjuncture (Sul, 2021, 2019), not only undermines equity but also contributes to issues of measurement error, irrelevancy of results for families and early childhood programs, and the potential for cultural assimilation (Wesner et al., 2024).

Recognition of this misalignment in our process prompted an important shift in our focus from exploring ways to improve the "fit" of caregiver-child constructs and PCI measures within Indigenous contexts to identifying and uplifting more relational constructs of family relationships, as well as Indigenous values and worldviews of child development.

3.2 | Centering Indigenous values of child development

Values of Indigenous child development and Indigenous theories and frameworks of family relationships include a variety of relational practices with young children that are embedded within extensive family, community, and social networks, as well as several frameworks grounded in a relational worldview (Butterworth & Candy, 1998; Cajete, 2017; Day, 2014; Day et al., 2021; Guilfoyle et al., 2010; Kitson & Bowes, 2010; Lindstrom, 2016; Macvean et al., 2017; Muir & Bohr, 2019; Robbins et al., 2005; Sun et al., 2022; Titcomb et al., 2019; Townsend-Cross, 2004; Ullrich, 2019). Indigenous values of belonging, focusing on strengths, fostering independence (a child learning about their unique gifts, roles, and responsibilities) and inter-dependence (a child learning how to contribute to family and community), learning through listening and observing, nurturing

relationships, adopting a relational worldview, and socialization with family and community emerged as important and common elements across the literature (Cajete, 2017; Day, 2014; Day et al., 2021; Guilfoyle et al., 2010; Kitson & Bowes, 2010; Macvean et al., 2017; Muir & Bohr, 2019). Other values such as balance, ceremony, cooperation, generosity, humor, identity, respect, responsibility and roles, storytelling, and wellbeing also emerged but with fewer examples (Cajete, 2017; Sun et al., 2022). As a foundational step in our process, we compiled key quotes and characteristics relevant to Indigenous families and young children across this literature. We then thematically organized examples of Indigenous values that we were familiar with and values that emerged from the literature (Attride-Stirling, 2001). A full description of these Indigenous values and practices of raising young children is available in Table 1.

In addition to values related to Indigenous child development, we identified several models and frameworks of relational and family wellbeing representing Aboriginal, American Indian and Alaska Native, First Nations, Native Hawaiian, and Māori cultures, all of which align with a broader relational worldview of family relationships and positive child development. Common themes across these models and frameworks are a focus on wellbeing, broader systems of support, and interconnection between family, community, culture, and the environment (Day, 2014; Macvean et al., 2017; McCubbin et al., 2013; Ullrich, 2019; Wilson et al., 2021). Through this process, the Indigenous connectedness framework emerged as particularly relevant to understanding how a child's relational identity is grounded in connectedness, culture, and spirituality (Ullrich, 2019). This model is something we return to in later steps along the way.

3.3 | Establishing a Community of Learning

At this point in our journey, the need for a culturally grounded model and measure of caregiver-child relationships in Indigenous families and communities was clear. Drawing inspiration from the values of Indigenous child development (Table 1) and the Indigenous connectedness framework (Ullrich, 2019), our next step was forming a CoL to begin conceptualizing a culturally grounded construct of caregiver-child relationships and working toward describing and measuring that construct.

The TRC Leadership Team and study team identified potential members for this CoL focused on Indigenous ERW and invited TRC Steering Committee members to do the same. When inviting potential members, creating balance across Indigenous and allied community and practitioner partners, researchers, and federal program staff was essential, as well as diverse geographical and cultural representation and perspectives. Among the 14-member CoL, nine are Indigenous, one is a community practitioner, nine are practitioner/academic researchers working in collaboration with Tribal early childhood programs, and four are federal program and evaluation staff. The CoL was established in July 2021 and is led by a team of four researchers at the TRC. Members convene virtually each month and in-person when a meeting coincides with a TRC gathering or other related conference. All CoL members were invited to serve as authors on this paper. Among the authors, six are Indigenous and all have been working with Indigenous communities for 10 to 25 years.

3.4 | Conceptualizing Indigenous early relational wellbeing

Early conversations with our CoL involved sharing reflections on Indigenous values of child development and the Indigenous connectedness framework (Ullrich, 2019), which was developed by Dr. Jessica Saniġaq Ullrich, an Alaska Native scholar, in partnership with Elders, scholars, and community members. It was clear in conversations among our CoL that a different construct of caregiver-child relationships was needed. Although we reviewed existing models of Indigenous relational worldviews and wellbeing, none had an explicit focus on early childhood.

We then began exploring the idea of Indigenous ERW as a construct that reflects Indigenous worldviews, encompassing the multitude of relationships and practices that are the "seeds of connectedness" in early childhood. This led us to inviting Dr. Ullrich to share with our CoL about the development and application of the Indigenous connectedness framework (Ullrich, 2019). There was overwhelming support to apply this framework to early childhood and use it to conceptualize the construct of Indigenous ERW. Dr. Ullrich subsequently joined our CoL and provided ongoing input on the development of a model of Indigenous ERW.

The goal of our study then pivoted from adapting or developing a culturally responsive measure of PCI to co-creating a culturally meaningful model of Indigenous ERW that could inform the development of a culturally grounded measure. From a measurement perspective, cultural adaptation may include surface and deep level changes of content while retaining the original measurement approach (Okamoto et al., 2014; Wesner et al., 2024). In contrast, culturally grounded or immersed measures are aligned with cultural context across all aspects of

TABLE 1 Values of Indigenous childhood development from a literature review representing Indigenous communities in Australia, New Zealand, Canada, and the U.S.

Value	Examples of Ideal Characteristics & Goals
Balance	• symbiotic child–community relationship (Guilfoyle et al., 2010) • being in harmony with nature and ancestors through cultural practices (McCubbin et al., 2013)
Belonging	• honoring a child through a naming ceremony (BigFoot & Funderburk, 2011) • teaching children sense of relatedness to family, community, and environment (Butterworth & Candy, 1998; Kitson & Bowes, 2010; Townsend-Cross, 2004) • involvement in and contributing to one's community (McCubbin et al., 2013) • child feeling connected; knowing they are never alone (Ullrich, 2019) • showing children that their families and community value and support them (Ullrich, 2019)
Ceremony	• actively engaging in traditional ceremonies (Day et al., 2021)
Cooperation	• child-rearing duties as a cooperative communal effort (BigFoot & Funderburk, 2011) • cooperation (not competition) (Butterworth & Candy, 1998; Kitson & Bowes, 2010; Townsend-Cross, 2004)
Courage	• exploration and risk taking but with emotional responsiveness and affection (Muir & Bohr, 2019)
Discipline as teaching	• using less physical discipline (Muir & Bohr, 2019) • using less harsh discipline; if discipline is used there is a deep lesson or teaching behind it that is intended to benefit child (Lindstrom, 2016; Muir & Bohr, 2019) • viewing discipline as the teaching of self-control and learning about the rules of life (BigFoot & Funderburk, 2011) • tolerate teasing (humor) as the major form of self-control (Kitson & Bowes, 2010; Townsend-Cross, 2004)
Focus on strengths	• using praise to encourage positive behavior (BigFoot & Funderburk, 2011) • resistance to giving instruction, correcting, coercing, or trying to persuade another to do something (Muir & Bohr, 2019) • children are not compared to other children of the same age, rather they are allowed to have their own path for development of milestones (Muir & Bohr, 2019) • focus more on each child's individual abilities (Muir & Bohr, 2019) • building on child's inherent strengths rather than directing them (Guilfoyle et al., 2010) • showing children that their gifts, talents, contributions are valued (Ullrich, 2019)
Generosity/ Humility	• honoring a child through a giveaway (BigFoot & Funderburk, 2011) • expectation to share everything (Kitson & Bowes, 2010; Townsend-Cross, 2004)
Identity	• cultural identity developed through social learning norms (family, environment, culture) (Day, 2014) • supporting a child's cultural identity that is place-based and rooted in survivance (Sun et al., 2022)
Independence	• giving children the same range of freedom of behavior as adults (Day et al., 2021) • promoting self-sufficiency (Butterworth & Candy, 1998; Kitson & Bowes, 2010; Wilson & Matthews, 2001) • allowing children to sleep when they are tired (Kitson & Bowes, 2010; Townsend-Cross, 2004) • develop attributes of independence, persistence, initiative (Butterworth & Candy, 1998; Kitson & Bowes, 2010; Townsend-Cross, 2004) • allowing children the freedom to make their own decisions which leads to independence (Muir & Bohr, 2019) • allow children to eat and sleep—when, what, and with whom—as they choose, setting few limits (Muir & Bohr, 2019) • autonomy is an ideal based on independence (and thus survival) but is counterbalanced by strong affection for the child (Muir & Bohr, 2019)
Interdependence	• children's needs are not individualized or separated out from those of the community as a whole (Guilfoyle et al., 2010) • child care is about more than providing care to children; also about providing support and services that meet family and community needs and preferences (Guilfoyle et al., 2010)

(Continues)

TABLE 1 (Continued)

Value	Examples of Ideal Characteristics & Goals
Listening, observing	• allowing children to learn through their own observations (Day et al., 2021) • relying strongly on nonverbal cues rather than verbal directions (Day et al., 2021) • highly developed senses and physical skills through imitation and repetition (Butterworth & Candy, 1998; Kitson & Bowes, 2010; Townsend-Cross, 2004) • learning and forming their identity as they watch, listen, and imitate people older than themselves (Kitson & Bowes, 2010; Williams-Kennedy, 2004) • speaking less to children; more unspoken body language between child and adults (Lindstrom, 2016; Muir & Bohr, 2019)
Nurturing	• warmth, concern, and encouragement they gain from parents, grandparents, aunts, uncles, brothers, and sisters (BigFoot & Funderburk, 2011) • attending to and listening to children (BigFoot & Funderburk, 2011) • responsibility is on the broad community to create and provide an environment that is nurturing and safe for children to freely explore their world (Guilfoyle et al., 2010) • nurture through life's changes from an infant to a child, a child to an adolescent, from adolescence to adult and then into another sacred role, that of elder (Day, 2014) • nurturing system of support (extended family, clans, etc.) (Day, 2014) • showing children love, respect, and belonging to support spiritual connectedness and wellbeing (Ullrich, 2019) • identifying and expressing emotions and developing self-control (BigFoot & Funderburk, 2011)
Relational worldview	• fostering relationship with the land; helps to teach about culture and relationships (Bang et al., 2014; Cajete, 2017; Goodkind et al., 2015; Kawagley, 2006; Ullrich, 2019) • using Native languages to build deeper understanding of the values and connection to spirituality and the natural world (Day, 2014) • raise children using a relational worldview to foster unique perspectives on health, wellbeing, family, and spiritual connections (Day, 2014) • promoting intergenerational connectedness; develops through an awareness of a continuous history, an ability to speak the language of the ancestors, and generational knowledge of the land (Ullrich, 2019) • grounded identity: guidance on how to live a good life based on generations of experience and that will lead to the passage of knowledge for the children to come (Ullrich, 2019)
Respect	• fostering respect (McCubbin et al., 2013) • developing respect for elders (BigFoot & Funderburk, 2011)
Responsibility, roles	• older children look after younger ones and adults are often less involved (Butterworth & Candy, 1998; Kitson & Bowes, 2010) • understanding responsibilities/roles of family members, including generational standing (Red Horse, 1997; Robbins et al., 2005; Ullrich, 2019) • everyone is responsible for the care and safety of children (Bigfoot & Schmidt, 2010; Ullrich, 2019)
Socialization	• including children from infancy in all social, economic, and ritual activities (Day et al., 2021) • interconnections with extended family, including non-family community members who are involved in children's socialization (Muir & Bohr, 2019) • attachment via "connectedness" to extended family networks (Muir & Bohr, 2019) • inclusion of family and community in the childcare setting (Guilfoyle et al., 2010) • making sure children have meaningful interaction with extended family, community, and culture (Day, 2014) • raising children in a cultural milieu that includes Tribal language and cultural tradition (Day, 2014) • children have strong family, extended, and cultural family connections (Day, 2014) • family connectedness: children building strong relationships with family outside the parent–child dyad (Ullrich, 2019)

(Continues)

TABLE 1 (Continued)

Value	Examples of Ideal Characteristics & Goals
Storytelling	• using stories to provide an understanding of the world and its relationships (Day et al., 2021) • the importance of sharing experiences (e.g., through storytelling or ceremony) (BigFoot & Funderburk, 2011) • learning and forming their identity as they listen to family stories and songs (Bamblett, 2007; D'Souza, 1999; Kitson & Bowes, 2010; Williams-Kennedy, 2004) • using storytelling and modeling to teach love and respect for nature, respect, showing appreciation, courage, unselfishness, hard work, balance, and spirituality (Cajete, 2017; Robbins et al., 2005; Ullrich, 2019)
Wellbeing	• value development: wisdom, love, respect, bravery, honesty, humility, and truth (Day, 2014) • teaching strong values (Day, 2014) • fostering relational wellbeing; sense of satisfaction and happiness (well-being) derived from confidence and perceived competence to overcome adversity (McCubbin et al., 2013) • supporting a child's social-emotional development through cultural identity, language, and connection to place (Sun et al., 2022)

content, measurement approach, constructs, and worldview or theory (Okamoto et al., 2014; Wesner et al., 2024). As a CoL, we stepped back from the *operationalization* phase of measure development to the *conceptualization* phase (Walls et al., 2019), recognizing that before we could adequately measure Indigenous ERW, we would need clarity about what we intended to measure.

3.5 | Co-creating a model of Indigenous early relational wellbeing

As with the process that led us to the realization of a need for a model of Indigenous ERW, described above, the process used to create this model was embedded within the CoL. Working as a CoL, we drew on previous community-engaged work to develop conceptual models led by the TRC and researchers involved with the TRC. For example, one TRC study resulted in a framework for understanding systems of early developmental screening in Indigenous communities developed through a CoL (Whitesell et al., 2022). Additionally, some of the same researchers involved in the creation of the TRC's developmental screening framework also supported collaborative work with 17 Tribal MIECHV programs in the Muti-site Implementation Evaluation of Tribal Home Visiting (MUSE) study to create a conceptual model for understanding the implementation of home visiting in Indigenous communities that laid the foundation for the focus and design of that study (Abrahamson-Richards & Whitesell, 2018; Abrahamson-Richards et al., 2017; Around Him et al., 2019; Salvador et al., 2024).

Our model of Indigenous ERW evolved as an application of the Indigenous connectedness framework (Ullrich, 2019), retaining important elements such as connectedness at the community, environmental, family, and intergenerational levels, as well as the all-encompassing roles of ceremony, culture, and spirituality. In this model, connectedness through relational practices in early childhood is central to the development and continuation of relational wellbeing across the lifespan.

Figure 1 provides a visual representation of the model of Indigenous ERW. At the center of this model is ERW, which is rooted deeply within and protected by ceremony, culture, and spirituality. Indigenous children are born into relationships and held as sacred members of a community (Cajete, 2017). It is through cultural values, ceremonies, and spirituality that Indigenous ERW is fostered and begins to emerge and grow. Conversations with our CoL underscored these elements as central to wellbeing, as aspects of them are woven into each interaction, relationship, and practice promoting healthy child development within Indigenous populations and contexts.

The next level of the model illustrates how relational practices at the family, intergenerational, environmental, and community levels begin teaching a child about the world and themselves. Understanding relational practices has been the heart of our learning process and has involved many conversations to identify and describe practices that nurture relationships. As a CoL, we identified a variety of these relational practices that promote Indigenous ERW and are culturally appropriate to share publicly. For example, relational practices may involve ceremony (e.g., celebrating cultural milestones in children's lives, naming ceremonies), storytelling (e.g., connecting children to land and place through stories, telling children stories about family and relatives), teaching (e.g., teaching young children about respect for elders, kinship terms, how to introduce themselves in a Native language; sharing culture and language in early childhood classroom

activities), nurturing (e.g., hugging, dancing, singing, playing), and belonging (e.g., telling children they are valued, have unique gifts, and are important contributors to family and community wellbeing).

At the next level, the model illustrates how relational practices unfold across the lifespan, representing different developmental periods and traditional milestones, as well as demonstrating how relational wellbeing matures over time. Just as relational wellbeing evolves over time, so do the roles and responsibilities of promoting relational wellbeing. This maturation evolves in a continual and interdependent circular pattern—from prenatal to elderhood periods—demonstrating how protecting and nurturing relational wellbeing is reinforced across generations. Using a spiral as a metaphor for this process, relational wellbeing begins at the center of the spiral (prenatal and infancy), growing and radiating over time into elderhood. As the spiral grows and widens across the life span, so does the capacity and responsibility for nurturing relational wellbeing, which reflects the importance and role of elders in many Indigenous communities (Ullrich, 2019).

The outer circle/level of the model highlights what we believe are indicators of relational wellbeing, all of which align with Indigenous values of child development derived from our literature reviews (see Table 1) and conversations as a CoL. Indigenous values guide relational practices that help children achieve these indicators of wellbeing through connections to community, multiple generations, family, and the environment. Values are taught, lived, and developed across the life span. The model of Indigenous ERW highlights the values of belonging, love, protection, trust, empathy, humor, secure attachment, kinship, positive identity, autonomy, and independence/interdependence because these provide the foundation of relational practices that promote positive relational identities and connections. Although fostering autonomy and independence may seem counter to fostering interdependence, these cultural values reflect balance, so a child not only understands their unique gifts, purpose, and responsibilities but also knows how to share those gifts and contribute within their family and community. Centering Indigenous values, knowledge, practices, and connectedness moves beyond the parent-child dyad and provides an expanded view of social, family, and community relationships.

Finally, the elements of connectedness on the outer corners of the model align with the Indigenous connectedness framework (Ullrich, 2019) and relate back to its center, its roots. This illustrates how connectedness and Indigenous ERW are fostered through and important to each level of the model: rootedness in culture, ceremony, and spirituality; relational practices connected to family, multiple generations, community, and environment; developing across the life span; and observed through indicators or eventual outcomes. The wholeness of this framework captures the process of *planting seeds of Indigenous connection*. It also fills in gaps that were missing in the literature and identified by our CoL as important to promoting and understanding Indigenous ERW.

Overall, the model focuses on positive development and wellbeing, which aligns with Indigenous research methodologies and paradigms that are inherently strengths-based and intentionally counter to deficits-based research that has been harmful to Indigenous communities in the past (Denzin et al., 2008; Kovach, 2021; Martel et al., 2022; Martin, 2012; Wilson, 2020; Wright et al., 2019). Although trauma, loss, and subsequent healing are important contextual and historical considerations, they are not appropriate for this model. However, in the following section, we share ideas for how this model can be used and applied to promote healing through an intergenerational and culturally grounded approach.

4 | LESSONS LEARNED & IMPLICATIONS

We believe Indigenous ways of knowing hold the wisdom and solutions of what is needed for families, children, and communities to thrive and be healthy. This is why our research in partnership with Indigenous communities is grounded in a relational worldview, which allows for expansive thinking about the social environment and ecosystem that families live within. Understanding our relationship to the world and others is how we learn to belong and contribute, and this thinking is central to a child's identity and wellbeing now and in the future (Ullrich, 2019).

Guided by Indigenous values and ways of knowing about positive child development, we developed a model of Indigenous ERW that evolved as an application of the Indigenous connectedness framework (Ullrich, 2019). In the model, Indigenous ERW emerges and develops from connectedness to family, multiple generations, community, and the environment. It is through relational practices that Indigenous ERW is nurtured across each of these domains, creating a relational ecosystem and deep sense of belonging. Here we share lessons learned and reflections on our process that might be helpful to researchers and practitioners engaged in similar work. We end with implications for the model of Indigenous ERW and propose ways of applying it within the context of Indigenous communities and early childhood research, practice, and policy.

4.1 | Lessons learned

Our initial goal of adapting or creating new measures of PCI that are useful and relevant to Indigenous communities was tied to specific priorities established by our funding agency. Although we were not able to change those priorities during the proposal stage, we were able to change the priorities in response to guidance from the CoL and with the support of the funder. Our early formative research (i.e., literature review on the values of Indigenous child development) helped identify major gaps and cultural misalignment in existing measures of PCI when used in Tribal early childhood contexts, which we had not been able to articulate in the past. Sharing this information with our CoL provided an opportunity for members to reflect on gaps and share their own experiences related to the misalignment in constructs related to PCI.

It is important to note that community engagement is strongly encouraged and supported by our funding agency, and many of the program officers are members of our CoLs and Steering Committee. This leads to bidirectional learning, collaboration, and a deeper awareness for flexibility when needed. For example, our decision to pivot from adapting measures of PCI to developing a culturally grounded model and measure of Indigenous ERW was driven by conversations with the CoL, which included program officers from our funding agency. This lesson in flexibility is particularly relevant to funding agencies and grant makers that support community-engaged research, especially in collaboration with Indigenous communities.

Another important lesson learned is that measurement disjuncture—the cultural or contextual misalignment at the construct level—requires a new way of conceptualizing and operationalizing a specific construct or identifying a new construct altogether (Sul, 2021; Walls et al., 2019). This lesson was both salient and timely. In fact, it led to our study team working with two CoL members to further define measurement disjuncture in the context of Indigenous early childhood measurement, propose a common language for describing measurement across a cultural continuum, and share guidance on how to improve the field of measurement for practice and research (Wesner et al., 2024). Ongoing conversations as a CoL not only deepened our understanding of cultural misalignment in measurement but also led us to explore conceptual frameworks of Indigenous relational wellbeing and the possibility of needing to develop a culturally grounded model to guide our work. Although we did not set out to develop a new conceptual model of Indigenous ERW, our collaborative and iterative process illuminated the growing need for such a framework to guide future practice and research.

Finally, our conceptualization of relational wellbeing in early childhood is expansive and does not replace the critical need for measuring and promoting caregiver-child relationships and using existing measures of PCI. Instead, it situates caregiver-child relationships within a multitude of relationships with family, multiple generations, community, and the environment (Ullrich, 2019). Although this expanded conceptualization of relational wellbeing is especially relevant in Indigenous populations and non-Western cultures that often value collective caregiving and strong social cohesion (Lindstrom, 2016; Morelli et al., 2017; Red Horse, 1997; Rogoff, 2003; Titcomb et al., 2019; Townsend-Cross, 2004), it has value for all children and families. Moreover, ERW as a construct is better aligned with the growing field of child wellbeing, as self-report measures with children show relationships are one of the most important aspects and indicators of their wellbeing (Lippman et al., 2011; Scales, 2012).

4.2 | Implications for community

As Indigenous communities continue to walk through healing processes from historical and intergenerational trauma (Brave Heart & DeBruyn, 1998; Walls & Whitbeck, 2012), it is important to acknowledge cultural ways of life, including relational practices, that survived and contributed to survival across those generations (Sun et al., 2022). Indigenous teachings, ways of knowing, and ways of familial and communal living are alive and well, contributing to the wellbeing of Indigenous families and the continuation of their respective ways of life (Kitson & Bowes, 2010; Macvean et al., 2017; Sun et al., 2022; Ullrich, 2019; Wilson et al., 2021). The model of Indigenous ERW supports and upholds the idea that Indigenous practices around caring for families remain active within communities and are significant and foundational contributions to the healthy growth and development of Indigenous children.

However, some relational practices illustrated in this model of Indigenous ERW are not always easily accessed and operationalized. This is due in part to colonization and the resulting intergenerational traumas that impact sharing of these teachings and lifeways (Brave Heart & DeBruyn, 1998; Walls & Whitbeck, 2012). As a CoL, we are following a trauma-informed approach as we use this model to develop and implement a measure of Indigenous ERW. In the process of developing this measure, we are mindful of historical and contemporary traumas and access to cultural resources that affect engagement in relational practices that promote Indigenous ERW, especially strengths-based practices that involve speaking Native languages and other cultural protocols or practices that might require some level of cultural knowledge (Brockie et al., 2021). For example, we are considering the

contemporary context of Indigenous communities when developing the measure of Indigenous ERW, including how cultural resources and Native language speakers vary by community and how the administration of this measure should be implemented in a trauma-informed way.

We also have considered trauma-informed approaches to using the measure in practice. For example, results from the measure could be used in a home visiting context through a conversation between a caregiver and home visitor. Response options in the measure of Indigenous ERW will provide an understanding of a child's exposure to or engagement in relational practices, as well as why a child may not be exposed to specific relational practices (e.g., caregivers' lack of cultural knowledge or lack of access to cultural activities, or practices not being relevant in some cultures or communities or not age appropriate for some children). Such conversations may strengthen the relationships between home visitors and caregivers, deepen understanding of interests, and discover gaps in access to cultural resources. In aggregate, results could be used to identify opportunities for cultural activities at the program and community levels, as well as to monitor Indigenous ERW for all children in the community.

There are concerted efforts toward empowering Indigenous communities to develop culturally grounded (Barlow et al., 2015; Brockie et al., 2021) or adapted/enhanced early childhood programs (Barnes-Najor, 2021; Barnes-Najor et al., 2021; Meyer et al., 2018). However, the complexities of grant and other funding requirements make it challenging to integrate and evaluate Indigenous values and teachings within the context of early childhood programs that center evidence-based programs, initiatives, and protocols designed for the general population (Walls et al., 2019; Whitesell et al., 2018). The model of Indigenous ERW provides a framework centering Indigenous knowledge about the connection between Indigenous teachings and positive child development. The framework provides a foundation for culturally grounded interventions and measures that expand and strengthen the evidence base of what works for Indigenous children, families, and communities.

Indigenous communities can use this model to decolonize programs and practices that are not serving the community in a way that is optimal and that fail to reflect the valuable, protective, and essential nature of cultural relational practices and their positive impact on Indigenous families. This model can also facilitate understanding of how Indigenous traditional and cultural practices are connected to mainstream concepts (e.g., attachment) documented in the literature to foster child development for Indigenous and non-Indigenous communities alike (Choate & Tortorelli, 2022). Additionally, this model of Indigenous ERW could serve as a foundation for Indigenousled efforts to obtain assistance and funding for cultural revitalization. Such efforts would create space to understand and process stigma and/or uncertainty surrounding the value of cultural practices in creating and sustaining changes in child development outcomes.

4.3 | Implications for research

Through our research, we are responding to the lack of models and measures that reflect Indigenous values of child development. This is important because the models and measures we use in research and evaluation influence how we measure success. Culturally aligned tools reflect community values and culture, which, in turn, contribute to an evidence base that reflects community priorities, values, and stories (Barnes-Najor, 2021; Barnes-Najor et al., 2021; Bernstein et al., 2021; Sul, 2021, 2019; Walls et al., 2019; Wesner et al., 2024; Whitesell et al., 2018).

We are using this conceptual model in a program of research aimed at developing a culturally grounded measure of Indigenous ERW practices that accurately and reliably characterizes caregivers, extended family and relatives, community, and environmental supports that promote healthy development among Indigenous children prenatal to age five. Such a measure is imperative for researchers to better understand child development and wellbeing among young Indigenous children and how indicators of Indigenous ERW relate to developmental milestones and trajectories in later childhood and adulthood.

One component of our measurement work involves examining the psychometric properties of existing Indigenous ERW-related items included in the 2015/2016 and 2019/2020 waves of the American Indian/Alaska Native Family and Child Experiences Survey (AIAN FACES). AIAN FACES provides information on caregiving activities; cultural connections; and home, classroom, and center language and learning environments for a large, nationally representative sample of children enrolled in Region XI Head Start programs operated by federally recognized Tribes and Tribal consortia. Region XI serves 49 percent of all AIAN children in Head Start and 87 percent of children in Region XI programs are AIAN (Bernstein et al., 2021).

Our analyses will examine items from parent, teacher, center director, and program director surveys that assess relational practices within the family, intergenerational, environmental, and community domains of our model. We will use the results to evaluate the psychometric integrity of existing Indigenous ERW-related items and measures in AIAN samples and to determine whether they can be used in or adapted for a larger measure of Indigenous ERW for early childhood practice and research.

Another component of our measure development activities is a participatory group concept mapping process (Kane & Rosas, 2017) that actively engaged the members of our CoL, the TRC's Steering Committee, and other community members, researchers, practitioners, and policy makers with expertise in Indigenous early childhood development. The process began by asking participants to identify family, community, and environmental practices that support ERW among Indigenous children prenatal to age five. Participants were also asked to sort the resulting combined list of practices into meaningful groups of similar practices and rate each practice according to: (1) its presence among children prenatal to age five in Indigenous communities and (2) how important it is for promotion of ERW among those children.

The CoL worked together during the analysis phase of the group concept mapping process to collectively interpret the emerging dimensions of Indigenous ERW, their prevalence and importance, and the practices within each dimension that support Indigenous ERW. The results of this collaborative work will ultimately yield a set of items for a culturally grounded measure of Indigenous ERW that will be further refined through pilot testing and psychometric evaluation. Once finalized, this measure will facilitate a better understanding of Indigenous child development and the strength of connections that support young Indigenous children. It will also support culturally responsive evaluations of the effectiveness of programs intended to bolster those connections and ultimately improve Indigenous child and family outcomes.

Our goal is to develop a common measure that allows for tailoring by individual communities in the future (Walls et al., 2019). A major strength of common measures is the ability to enhance statistical power through pooling data across communities and populations, which is important given small population sizes in many Indigenous communities (Walls et al., 2019). To ensure the measure of Indigenous ERW is relevant and useful for diverse Indigenous communities, we will balance the level of specificity or generality of items by ensuring each item reflects the same level of cultural relevance (Walls et al., 2019).

In addition to developing a measure that includes culturally relevant content, our CoL is addressing data collection methodology. To that end, we are moving away from observational methods that are commonly used with PCI measures for several reasons. First, observational methods fail to capture relational contexts beyond the primary caregiver and child, thus excluding interactions with extended family members who often play important roles in caregiving for Indigenous children. Second, although employing observational methods by an "objective outsider" is a best practice in measuring PCI, observational methods work poorly in Indigenous communities (Walkup et al., 2009). Such methods are especially unsettling when the "objective outsider" is a local home visitor from the community who is tasked with assessing the home environment (Walkup et al., 2009). For example, home visitors in Indigenous communities have expressed discomfort with observational PCI measures, sharing that some items are culturally misaligned (e.g., having pets in the home when keeping them outside is normative for the community) and other items appear biased against families with limited resources (e.g., having a place for toys) (Walkup et al., 2009). Being more thoughtful about cultural and community context when using observational methods (Walkup et al., 2009) or using a self-report survey and guided conversation between an Indigenous early childhood professional and family in a relaxed, natural setting may be more fruitful and culturally meaningful (Wesner et al., 2024).

To address these issues, we are developing a self-report survey with items that reflect relational practices that occur within a young child's relational ecosystem. In other words, relational practices that occur within the family, community, or in an early childhood school or care setting. Moreover, the self-report measure of Indigenous ERW is designed to be completed by any caregiver of the child, which is intentionally inclusive of communal caregiving and extended family members.

4.4 | Implications for policy, programs & practice

Our conceptual model identifies Indigenous children's ERW as a key goal for policy makers, programs, and practitioners who work with Indigenous communities. The model highlights a range of important inputs and policy levers for attention—including supporting elders, families, birth workers, communities, Native language efforts, connection to land, and more. Ultimately the model of Indigenous ERW encourages policy makers and programs to think at a systems-level and to promote community-level healing to support the youngest generation. This work requires moving beyond programmatic silos and services aimed solely at the dyad (e.g., individual children and their parent or primary caregiver).

Funders of Indigenous early childhood and social service programs may consider how programs can promote Indigenous children's ERW and the four types of connectedness: family, intergenerational, environmental, and community. Where aligned with program goals, funders of Indigenous early childhood services can emphasize flexibilities in how local programs implement services and share a range of ERW-related activities that fit within the

broader goals and/or requirements of the programs. Early childhood funders can support local Indigenous programs to implement, add, or adapt elements that explicitly work to strengthen Indigenous ERW and support relational practices within their communities. Likewise, funders of Indigenous services can help communities to replicate, evaluate, and disseminate their Indigenous ERW-related services or practices.

Existing early childhood programs can further their efforts in the four areas of connectedness by supporting families and communities to engage in relational practices. For the many programs in Indigenous communities that already have practices in these areas, the model of Indigenous ERW provides a common language to describe these services. Ways in which programs may support relational practices might include broadening parent-centric services to include extended families, intentionally supporting and creating a sense of community among participants, adding an intergenerational lens to services, and further connecting children and families to land and the importance of place.

With such changes, practitioners may need support and professional development around discussing relational practices and connectedness with families. Practitioners may need to meet families "where they are at" and assess their openness to engaging in relational practices. Families may vary in their relational experiences and sense of cultural connectedness, and practitioners will need support to avoid stigmatizing families who have not had access to these practices and cultural resources, often because of colonization and related traumas. Finally, organizations will need to accommodate and consider practitioners' varying degrees of knowledge and comfort around supporting relational connectedness among Indigenous children and families.

4.5 | Strengths & Limitations

Our approach to developing this model was exploratory and the model itself may not be generalizable to all Indigenous children and families across rural, reservation, and urban communities. However, our CoL approach is designed to contribute diverse perspectives and experiences that reflect the cultural and geographical diversity of Indigenous communities in the U.S. Although our focus shifted from developing and/or culturally adapting measures of PCI, we believe there is still value in assessing how well existing measures of PCI work in early childhood programs and services that serve Indigenous children and families. In addition, as we use the model of Indigenous ERW to inform the development and evaluation of a culturally grounded measure, we will be mindful of the difference in constructs between PCI and ERW and consider the strengths and limitations of both.

5 | CONCLUSION

Culturally grounded models and measures of Indigenous ERW are important and sorely needed to evaluate, support, and understand positive early childhood development in Indigenous communities. Our CoL process underscores the importance of applying Indigenous methodologies and frameworks that acknowledge Indigenous ways of knowing and identifying constructs of value to communities, which inform research, practice, and policy. The model of Indigenous ERW serves as a foundational tool for understanding "rootedness" or a deep sense of place, security, and comfort (Oneha, 2001; Titcomb et al., 2019), and how to plant seeds of Indigenous connectedness. It also guides the creation of a culturally grounded measure and may contribute to the development of early childhood interventions and programs that endeavor to foster relational wellbeing through an ecosystem approach.

ACKNOWLEDGMENTS

The authors would like to thank the Tribal Early Childhood Research Center's (TRC) Leadership Team and Steering Committee for their guidance and support of our Early Relational Wellbeing Community of Learning (CoL) activities. We are also grateful to our Indigenous CoL members who have contributed stories and cultural knowledge to help us deepen our understanding of relational practices that nurture young children in Indigenous communities and contexts. Finally, we thank Dr. Joshua Sparrow, member of the TRC Leadership Team, for sharing insight on cultural differences in attachment and relationships in early childhood and a thoughtful review of the manuscript.

FUNDING INFORMATION

The TRC is supported by the Office of Planning, Research, and Evaluation (OPRE) within the Administration for Children and Families (ACF) of the U.S. Department of Health and Human Services (HHS) under cooperative agreement 90PH0030 (2020-2025). The information, content, and products of the TRC are those of the authors and should not be construed as the official position or policy of, nor should any endorsements be inferred by, OPRE, ACF, HHS, or the U.S. Government.

CONFLICT OF INTEREST STATEMENT

The authors declare that there is no conflict of interest.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analyzed during the current study.

ORCID

Chelsea A. Wesner https://orcid.org/0000-0002-0259-1524
Nancy Rumbaugh Whitesell https://orcid.org/0000-0002-3383-3194

ENDNOTES

[1]We use the term "parent" for ease and consistency with the literature. However, we also acknowledge that "primary caregiver" is a more inclusive term and more aligned with the context of family relationships and is increasingly used in literature.

[2]https://www.acf.hhs.gov/opre/project/tribal-research-center-early-childhood-development-and-systems.

REFERENCES

Abrahamson-Richards, T., & Whitesell, N. R. (2018). A Community Engagement Approach to Maximizing Design Rigor within a Multi-Site Evaluation of Tribal Home Visiting. Annual Conference of the Society for Prevention Research, Washington, D.C.

Abrahamson-Richards, T., Whitesell, N. R., & Lyon, K. (2017). Community Engagement in Designing a Multi-site Implementation Evaluation of Tribal Home Visiting Programs (MUSE). Native Children's Research Exchange Annual Meeting, Denver, CO.

Around Him, D., Atukpawu-Tipton, G., & Whitesell, N. (2019). Building Synergy Across MUSE & HARC: Lessons from Tribal and Precision Home Visiting Research and Evaluation. Native Children's Research Exchange Annual Meeting, Denver, CO.

Asdigian, N. L., Howley, C. T., Sarche, M., Clifford, C., Miller, A. K., & Whitesell, N. R., & Tribal Early Childhood Research Center PEDS Community of Learning. (2022). Exploring the feasibility of validating early developmental screening tools for American Indian and Alaska Native children. *Infant Mental Health Journal*, *43*(4), 576–588. https://doi.org/10.1002/imhj.21989

Attride-Stirling, J. (2001). Thematic networks: An analytic tool for qualitative research. *Qualitative Research*, *1*(3), 385–405.

Bamblett, M. (2007). Protecting culture and protecting the future of our children: A keynote address. SNAICC National Conference, Adelaide, Australia.

Bang, M., Curley, L., Kessel, A., Marin, A., Suzukovich iii, E. S., & Strack, G. (2014). Muskrat theories, tobacco in the streets, and living Chicago as Indigenous land. *Environmental Education Research*, *20*(1), 37–55.

Barlow, A., Mullany, B., Neault, N., Goklish, N., Billy, T., Hastings, R., Lorenzo, S., Kee, C., Lake, K., & Redmond, C. (2015). Paraprofessional-delivered home-visiting intervention for American Indian teen mothers and children: 3-year outcomes from a randomized controlled trial. *American Journal of Psychiatry*, *172*(2), 154–162.

Barnes-Najor, J., Barofsky, M., Bernstein, S., Garcia, L., Hoard, L., Malone, L., McKechnie, L., Petticrew, E., Sims, C., & Walker, A. (2021). *Native Culture & Language in the Classroom Observation* (OPRE report #2021-38). Administration for Children & Families.

Barnes-Najor, J. V., Thompson, N. L., Cameron, A. F., Smith, T. M., Calac Verdugo, M., Brown, P. L., & Sarche, M. C. (2021). Cultural and practice perspectives on the classroom assessment scoring system: Voices from american indian and alaska native head start programs. *Journal of Research in Childhood Education*, *35*(1), 162–183.

Bernstein, S., Dang, M., Li, A., Klein, A. K., Reid, N., Blesson, E., Cannon, J., Harrington, J., Larson, A., & Aikens, N. (2021). Descriptive data on Region XI Head Start children and families: AIAN FACES Fall 2019 data tables and study design. OPRE report 2021–28. *Administration for Children & Families*.

BigFoot, D. S., & Funderburk, B. W. (2011). Honoring children, making relatives: The cultural translation of parent-child interaction therapy for American Indian and Alaska Native families. *Journal of Psychoactive Drugs*, *43*(4), 309–318.

Bigfoot, D. S., & Schmidt, S. R. (2010). Honoring children, mending the circle: Cultural adaptation of trauma-focused cognitive-behavioral therapy for American Indian and Alaska Native children. *Journal of Clinical Psychology*, *66*(8), 847–856.

Biringen, Z., & Robinson, J. (1991). Emotional availability in mother-child interactions: A reconceptualization for research. *American Journal of Orthopsychiatry*, *61*(2), 258–271.

Brave Heart, M. Y. H., & DeBruyn, L. M. (1998). The American Indian holocaust: Healing historical unresolved grief. *American Indian and Alaska Native Mental Health Research*, *8*(2), 60–82.

Brockie, T., Haroz, E. E., Nelson, K. E., Cwik, M., Decker, E., Ricker, A., Littlepage, S., Mayhew, J., Wilson, D., Wetsit, L., & Barlow, A. (2021). Wakȟáŋyeža (Little Holy One)—An intergenerational intervention for Native American parents and children: A protocol for a randomized controlled trial with embedded single-case experimental design. *BMC Public Health*, *21*(1), 2298. https://doi.org/10.1186/s12889-021-12272-9

Brockie, T. N., Hill, K., Davidson, P. M., Decker, E., Krienke, L. K., Nelson, K. E., Nicholson, N., Werk, A. M., Wilson, D., & Around Him, D. (2022). Strategies for culturally safe research with Native American communities: An integrative review. *Contemporary Nurse*, *58*(1), 8–32. https://doi.org/10.1080/10376178.2021.2015414

Butterworth, D., & Candy, J. (1998). Quality early childhood practice for young Aboriginal children. *Australasian Journal of Early Childhood*, *23*(2), 20–25.

Cajete, G. A. (2017). Children, myth and storytelling: An Indigenous perspective. *Global Studies of Childhood*, *7*(2), 113–130.

Cassidy, J. (1994). Emotion regulation: Influences of attachment relationships. *Monographs of the Society for Research in Child Development*, *59*(2-3), 228–249.

Choate, P., & Tortorelli, C. (2022). Attachment theory: A barrier for indigenous children involved with child protection. *International Journal of Environmental Research and Public Health*, *19*(14), 8754.

Connell, C. M., & Prinz, R. J. (2002). The impact of childcare and parent–child interactions on school readiness and social skills development for low-income African American children. *Journal of School Psychology*, *40*(2), 177–193.

Day, A. G., Murphy, K. S., Whitekiller, V. D., & Haggerty, K. P. (2021). Characteristics and competencies of successful resource parents working in Indian country: A systematic review of the research. *Children and Youth Services Review*, *121*, 105834.

Day, P. A. (2014). Raising healthy American Indian children: An indigenous perspective. *Social issues in contemporary Native America: Reflections from Turtle Island*, Taylor and Francis. 93–112.

Denham, S. A., Renwick, S. M., & Holt, R. W. (1991). Working and playing together: Prediction of preschool social-emotional competence from mother-child interaction. *Child Development*, *62*(2), 242–249.

Denzin, N. K., Lincoln, Y. S., & Smith, L. T. (2008). *Handbook of Critical and Indigenous Methodologies*. Sage.

D'Souza, N. (1999). The politics of Aboriginal children's services in Australia. *Australasian Journal of Early Childhood*, *24*(1), 26–33.

Easterbrooks, M. A., Bureau, J.-F., & Lyons-Ruth, K. (2012). Developmental correlates and predictors of emotional availability in mother–child interaction: A longitudinal study from infancy to middle childhood. *Development and Psychopathology*, *24*(1), 65–78.

Eyberg, S. M., Funderburk, B. W., Hembree-Kigin, T. L., McNeil, C. B., Querido, J. G., & Hood, K. K. (2001). Parent-child interaction therapy with behavior problem children: One and two year maintenance of treatment effects in the family. *Child & Family Behavior Therapy*, *23*(4), 1–20.

Eyberg, S. M., & Robinson, E. A. (1982). Parent-child interaction training: Effects on family functioning. *Journal of Clinical Child & Adolescent Psychology*, *11*(2), 130–137.

Felitti, V. J., & Anda, R. F. (2009). *The hidden epidemic: The impact of early life trauma on health and disease*. (R. Lanius, & E. Vermetten, Eds.). Cambridge University Press.

Felitti, V. J., & Anda, R. F. (2010). *The relationship of adverse childhood experiences to adult medical disease, psychiatric disorders, and sexual behavior: Implications for healthcare*. Cambridge University Press.

Fisher, P. A., & Ball, T. J. (2003). Tribal participatory research: Mechanisms of a collaborative model. *American Journal of Community Psychology*, *32*(3–4), 207–216.

Fraiberg, S., Adelson, E., & Shapiro, V. (2018). Ghosts in the nursery: A psychoanalytic approach to the problems of impaired infant–mother relationships 1. In *Parent-infant Psychodynamics* (pp. 87–117). Routledge.

Funderburk, B. W., Eyberg, S. M., Newcomb, K., McNeil, C. B., Hembree-Kigin, T., & Capage, L. (1998). Parent-child interaction therapy with behavior problem children: Maintenance of treatment effects in the school setting. *Child and Family Behaviour Therapy*, *20*(2), 17–38.

Garner, A., Shonkoff, J., & Child, C. o. P. A. o., & Family Health. (2012). Section on Developmental and Behavioral Pediatrics. Early childhood adversity, toxic stress, and the role of the pediatrician: Translating developmental science into lifelong health. *Pediatrics*, *129*(1), e224–e231.

Goodkind, J. R., Gorman, B., Hess, J. M., Parker, D. P., & Hough, R. L. (2015). Reconsidering culturally competent approaches to American Indian healing and well-being. *Qualitative Health Research*, *25*(4), 486–499.

Guilfoyle, A., Saggers, S., Sims, M., & Hutchins, T. (2010). Culturally strong childcare programs for Indigenous children, families and communities. *Australasian Journal of Early Childhood*, *35*(3), 68–76.

Julian, M., Lawler, J., & Rosenblum, K. (2017). Caregiver-child relationships in early childhood: Interventions to promote well-being and reduce risk for psychopathology. *Current Behavioral Neuroscience Reports*, *4*(2), 87–98.

Kane, M., & Rosas, S. (2017). *Conversations about group concept mapping: Applications, examples, and enhancements*. SAGE Publications.

Kawagley, A. O. (2006). *A Yupiaq worldview: A pathway to ecology and spirit*. Waveland Press.

Kitson, R., & Bowes, J. (2010). Incorporating Indigenous ways of knowing in early education for Indigenous children. *Australasian Journal of Early Childhood*, *35*(4), 81–89.

Kovach, M. (2010). Conversation method in Indigenous research. *First Peoples Child & Family Review*, *5*(1), 40–48.

Kovach, M. (2021). *Indigenous methodologies: Characteristics, conversations, and contexts*. University of Toronto Press.

Leblanc, É., Dégeilh, F., Daneault, V., Beauchamp, M. H., & Bernier, A. (2017). Attachment security in infancy: A preliminary study of prospective links to brain morphometry in late childhood. *Frontiers in Psychology*, *8*, 2141.

Lindstrom, G. (2016). *Nistawatsimin: Exploring First Nations parenting: A literature review and expert consultation with Blackfoot Elders*. Canadian Child Welfare Research Portal.

Lippman, L. H., Moore, K. A., & McIntosh, H. (2011). Positive indicators of child well-being: A conceptual framework, measures, and methodological issues. *Applied Research in Quality of Life*, *6*, 425–449.

Mackes, N. K., Golm, D., Sarkar, S., Kumsta, R., Rutter, M., Fairchild, G., Mehta, M. A., & Sonuga-Barke, E. J., & on behalf of the ERA Young Adult Follow-up team. (2020). Early childhood deprivation is associated with alterations in adult brain structure despite subsequent environmental enrichment. *Proceedings of the National Academy of Sciences*, *117*(1), 641–649.

Macvean, M., Shlonsky, A., Mildon, R., & Devine, B. (2017). Parenting interventions for indigenous child psychosocial functioning: A scoping review. *Research on Social Work Practice*, *27*(3), 307–334.

Martel, R., Shepherd, M., & Goodyear-Smith, F. (2022). He awa whiria—A "Braided River": An indigenous māori approach to mixed methods research. *Journal of Mixed Methods Research*, *16*(1), 17–33.

Martin, D. H. (2012). Two-eyed seeing: A framework for understanding indigenous and non-Indigenous approaches to Indigenous health research. *Canadian Journal of Nursing Research Archive*, *44*, 20–43.

McCubbin, L. D., McCubbin, H. I., Zhang, W., Kehl, L., & Strom, I. (2013). Relational well-being: An I,ndigenous perspective and measure. *Family Relations*, *62*(2), 354–365.

Meyer, A., Geary, E., Heath, D., Hiratsuka, V., Salvador, M., Sanchez, J., & Whitesell, N. (2018). Approaches to the evaluation of cultural adaptations of home visiting in tribal communities. *Infant Mental Health Journal*, *39*(3), 347–357.

Morelli, G. A., Chaudhary, N., Gottlieb, A., Keller, H., Murray, M., Quinn, N., Rosabal-Coto, M., Scheidecker, G., Takada, A., & Vicedo, M. (2017). A pluralistic approach to attachment. In *The cultural nature of attachment: Contextualizing relationships and development* Vol. 22, pp. 139.MIT Press Cambridge, Massachusetts.

Muir, N., & Bohr, Y. (2019). Contemporary practice of traditional Aboriginal child rearing: A review. *First Peoples Child & Family Review: An Interdisciplinary Journal Honouring the Voices, Perspectives, and Knowledges of First Peoples through Research, Critical Analyses, Stories, Standpoints and Media Reviews*, *14*(1), 153–165.

Okamoto, S. K., Kulis, S., Marsiglia, F. F., Steiker, L. K. H., & Dustman, P. (2014). A continuum of approaches toward

developing culturally focused prevention interventions: From adaptation to grounding. *Journal of Primary Prevention*, *35*(2), 103–112. https://doi.org/10.1007/s10935-013-0334-z

Olds, D. L. (2006). The nurse–family partnership: An evidence-based preventive intervention. *Infant Mental Health Journal*, *27*(1), 5–25.

Oneha, M. F. (2001). Ka mauli o ka 'oina a he mauli kanaka: An ethnographic study from an Hawaiian sense of place. *Pacific Health Dialog*, *8*(2), 299–311.

Pianta, R. C., Nimetz, S. L., & Bennett, E. (1997). Mother-child relationships, teacher-child relationships, and school outcomes in preschool and kindergarten. *Early Childhood Research Quarterly*, *12*(3), 263–280.

Red Horse, J. (1997). Traditional American Indian family systems. *Families, Systems, & Health*, *15*(3), 243.

Robbins, R., Scherman, A., Holeman, H., & Wilson, J. (2005). Roles of American Indian grandparents in times of cultural crisis. *Journal of Cultural Diversity*, *12*(2), 62–68.

Rogoff, B. (2003). *The cultural nature of human development*. Oxford University Press.

Salvador, M., Abrahamson-Richards, T., Lyon, K., & Whitesell, N. R. (2024). Engaging Indigenous communities in research to inform practice: The multisite implementation evaluation of Tribal home visiting. *Infant Mental Health Journal*, *45*(6), 683–704. https://doi.org/10.1002/imhj.22139

Scales, P. C. (2012). *Other People's Kids: Social Expectations and American Adults? Involvement with Children and Adolescents*. (Vol. 2). Springer Science & Business Media.

Schore, A. N. (2001). Effects of a secure attachment relationship on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal*, *22*(1–2), 7–66.

Shonkoff, J., & Phillips, D. (2000). *From Neurons to Neighborhoods: The Science of Early Childhood Development*. National Academies Press (US).

Stern, D. N. (2018). *The interpersonal world of the infant: A view from psychoanalysis and developmental psychology*. Routledge.

Sul, D. (2021). *Indigenous assessment developers on elements of the disjuncture-response dialectic: A critical comparative case study*. University of San Francisco.

Sul, D. A. (2019). *Clearing a path toward evaluation autonomy: Minimizing measurement disjuncture and improving the validity of findings through culturally specific assessment*. American Evaluation Association Conference.

Sun, J., Goforth, A. N., Nichols, L. M., Violante, A., Christopher, K., Howlett, R., Hogenson, D., & Graham, N. (2022). Building a space to dream: Supporting indigenous children's survivance through community-engaged social and emotional learning. *Child Development*, *93*(3), 699–716.

Titcomb, C., Dillard, A., & Maskarinec, G. (2019). I Ulu nö ka Lälä i ke Kumu: A Descriptive Study of Child-Rearing Traditions Recalled by Native Hawaiian Elders. *Hūlili: Multidisciplinary Research on Hawaiian Well-Being*, *11*, 151. https://doi.org/10.37712/hulili.2019.11-2.05

Tolliver-Lynn, M. N., Marris, A. M., Sullivan, M. A., & Armans, M. (2021). The role of the parent–child relationship in fostering resilience in American Indian/Alaskan Native children. *Journal of Community Psychology*, *49*(2), 419–431.

Townsend-Cross, M. (2004). Indigenous Australian perspectives in early childhood education. *Australasian Journal of Early Childhood*, *29*(4), 1–6.

Ullrich, J. S. (2019). For the love of our children: An Indigenous connectedness framework. *Alternative: An International Journal of Indigenous Peoples*, *15*(2), 121–130. https://doi.org/10.1177/1177180119828114

Walkup, J. T., Barlow, A., Mullany, B. C., Pan, W., Goklish, N., Hasting, R., Cowboy, B., Fields, P., Baker, E. V., Speakman, K., Ginsburg, G., & Reid, R. (2009). Randomized Controlled Trial of a Paraprofessional-Delivered In-Home Intervention for Young Reservation-Based American Indian Mothers. *Journal of the American Academy of Child and Adolescent Psychiatry*, *48*(6), 591–601. https://doi.org/10.1097/CHI.0b013e3181a0ab86

Wallerstein, N., & Duran, B. (2017). The theoretical, historical and practice roots of CBPR. *Community-based Participatory Research for Health: Advancing Social and Health Equity*, Jossey-Bass. 17–29.

Wallerstein, N. B., & Duran, B. (2006). Using community-based participatory research to address health disparities. *Health Promotion Practice*, *7*(3), 312–323.

Walls, M. L., & Whitbeck, L. B. (2012). The intergenerational effects of relocation policies on Indigenous families. *Journal of Family Issues*, *33*(9), 1272–1293.

Walls, M. L., Whitesell, N. R., Barlow, A., & Sarche, M. (2019). Research with American Indian and Alaska Native populations: Measurement matters. *Journal of Ethnicity in Substance Abuse*, *18*(1), 129–149. https://doi.org/10.1080/15332640.2017.1310640

Walters, K. L., Walls, M. L., Dillard, D. A., & Kaur, J. S. (2019). *American Indian and Alaska Native (AI/AN) Research in the Health Sciences: Critical Considerations for the Review of Research Applications*. National Institutes of Health. Retrieved from https://dpcpsi.nih.gov/sites/default/files/Critical_Considerations_for_Reviewing_AIAN_Research_508.pdf

Wesner, C. A., Handeland, T., Martin, L., Asdigian, N. L., Barnes-Najor, J., & Whitesell, N. R. (2024). Advancing equity through engaging communities to address measurement disjuncture in indigenous infant and early childhood mental health. In J. D. Osofsky, H. E. Fitzgerald, M. Keren, K. Puura (Eds.), *WAIMH handbook of infant and early childhood mental health*. Springer. https://doi.org/10.1007/978-3-031-48631-9_15

Whitesell, N. R., Bolan, M., Chomos, J. C., Heath, D., Miles, J., Salvador, M., Whitmore, C., & Barlow, A. (2018). Measurement Issues in Home-Visiting Research within Tribal Communities: Challenges and Strategies. *Infant Mental Health Journal*, *39*(3), 326–334. https://doi.org/10.1002/imhj.21713

Whitesell, N. R., Howley, C. T., Asdigian, N. L., Clifford, C., Senehi, N., Sarche, M., & Tribal Early Childhood Research Center PEDS Community of Learning. (2022). Community perspectives on developmental screening of American Indian and Alaska Native children. *Infant Mental Health Journal*, *43*(4), 558–575. https://doi.org/10.1002/imhj.21992

Williams-Kennedy, D. (2004). Building bridges between literacies. *Early Childhood Education. Society and Culture*, 80–94.

Wilson, A., & Matthews, L. (2001). Including Aboriginal perspectives in the early years. Our Children the Future Conference, Adelaide, Australia.

Wilson, D., Moloney, E., Parr, J. M., Aspinall, C., & Slark, J. (2021). Creating an Indigenous Māori-centred model of relational health: A literature review of Māori models of health. *Journal of Clinical Nursing*, *30*(23–24), 3539–3555.

Wilson, S. (2020). *Research is ceremony: Indigenous research methods*. Fernwood Publishing.

Wright, A. L., Gabel, C., Ballantyne, M., Jack, S. M., & Wahoush, O. (2019). Using two-eyed seeing in research with Indigenous People: An integrative review. *International Journal of Qualitative Methods*, *18*, 1609406919869695.

How to cite this article: Wesner, C. A., Around Him, D., Ullrich, J. S., Martin, L., Denmark, N., Russette, H., Lee, K. S., Sarche, M., Asdigian, N. L., Barnes-Najor, J., Whitesell, N. R., & the Tribal Early Childhood Research Center Early Relational Wellbeing Community of Learning. (2025). Co-creating a conceptual model of Indigenous relational wellbeing in early childhood: Planting seeds of connectedness. *Infant Mental Health Journal*, *46*, 115–132. https://doi.org/10.1002/imhj.22149

APPENDIX

The Tribal Early Childhood Research Center Early Relational Wellbeing Community of Learning group:

Chelsea A. Wesner[a], Deana Around Him[b], Jessica Saniguq Ullrich[c], Lisa Martin[d], Helen Russette[e], Michelle Sarche[f], Deana Around Him,[b] Moushumi Beltangady, Nicole Denmark, Tina Handeland,[g] Alicia Heim, Crystal Kee Austin,[h] KyungSook Lee, Lisa Martin,[d] Amy Painter,[i] Helen Russette,[e] Jessica Saucedo,[j] Debra Shuey, Jessica Saniguq Ullrich,[c] Monica Tsethlikai[k]

Tribal affiliations for authors from collaboration group: [a]Choctaw Nation; [b]Cherokee Nation; [c]Nome Eskimo Community; [d]Sault Ste. Marie Tribe of Chippewa Indians; [e]Chippewa-Cree Tribe; [f]Lac Courte Oreilles Band of Ojibwe; [g]Lac du Flambeau Band of Lake Superior Ojibwe; [h]Navajo Nation; [i]Winnebago Tribe; [j]Mexican Indigenous (Yaqui); [k]Pueblo of Zuni