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Indigenous Cultural Identity Protects Against Intergenerational Transmission of ACEs Among Indigenous Caregivers and Their Children

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Abstract

A large body of empirical research has demonstrated that caregiver adverse childhood experiences (ACEs) predict ACEs in one's child, a phenomenon known as the intergenerational transmission of ACEs. Little of this empirical research, however, has focused specifically on Indigenous peoples despite a growing body of theoretical literature and the wisdom of Elders and Traditional Knowledge Keepers that speaks to the presence of this phenomenon within Indigenous communities as well as the protective role of Indigenous cultural identity in preventing the intergenerational transmission of ACEs. The purpose of the current study was to conduct an empirical evaluation of this hypothesis, specifically that Indigenous cultural identity and social support protects against the intergenerational transmission of ACEs among Indigenous peoples and their children in the USA. Participants were 106 Indigenous women caregivers of children ages 10 to 14 in South Dakota who completed surveys. Results showed that Indigenous cultural identity moderated the association between caregiver ACEs and child ACEs. At high levels of cultural identity, there was no association between caregiver ACEs and child ACEs. At low levels of Indigenous cultural identity, however, there was a strong and positive relationship between caregiver ACEs and child ACEs. Social support did not moderate the association between caregiver ACEs and child ACEs. These findings underscore the need for initiatives that enhance Indigenous cultural identity and social support among Indigenous caregivers to prevent the intergenerational transmission of ACEs.

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Ethics Approval The research procedures were approved by the University of Nebraska-Lincoln's Institutional Review Board (IRB protocol number: 20210921287FB-COLLA) as well as the Great Plains Indian Health Services IRB. The study was performed in accordance with the ethical standards as laid down in the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Consent to Participate Participants provided informed consent to participate.

Conflict of Interest The authors declare no competing interests.

Keywords

Adverse childhood experiences; Native Americans; Indigenous; Intergenerational transmission; Culture

Adverse childhood experiences (ACEs) are a public health crisis that can lead to myriad short- and long-term deleterious outcomes [1, 2] and disproportionately impact Indigenous peoples [3, 4]. A large body of empirical research has demonstrated that caregiver ACEs predict ACEs in one's child, a phenomenon known as the intergenerational transmission of ACEs [5, 6]. Little of this empirical research, however, has focused specifically on Indigenous peoples, despite a growing body of theoretical literature [7, 8] and the wisdom of Elders and Knowledge Keepers [9, 10] that speaks to the presence of intergenerational transmission of ACEs within Indigenous communities as well as the protective role of culture in preventing the intergenerational transmission of ACEs. The purpose of the current study was to conduct, to our knowledge, the first ever quantitative empirical evaluation of this hypothesis, specifically that Indigenous cultural identity and social support protect against (via moderation analyses) the intergenerational transmission of ACEs among Indigenous women caregivers and their children. A considerable body of research has demonstrated that trauma and maltreatment can be passed down across generations (e.g., "cycles of maltreatment"), leading to calls for better understanding on the protective factors that can help to break this cycle [5, 8, 11]. More recent work has focused on discerning aspects of resiliency (e.g., personal, familial, community strengths) that can reduce the maintenance of this cycle [12, 13].

In the current paper, in addition to drawing upon peer-reviewed empirical and theoretical literature, we also draw on the knowledge, wisdom, and teachings bestowed upon us by Elders and Traditional Knowledge Keepers in the form of stories, songs, and other traditional methods. The wisdom, knowledge, and teachings of Elders and Traditional Knowledge Keepers are critical to sustaining Indigenous cultures and traditions, the collective well-being of Indigenous communities, and informing research on Indigenous populations.

ACEs and the Intergenerational Transmission of Trauma

ACEs are potentially traumatic events that occur in children ages of birth to 17 and can have a negative lifelong impact on individuals [1]. ACEs include childhood abuse (i.e., physical, sexual, psychological, neglect) and various aspects of household dysfunction such as parent/caregiver substance abuse, mental illness, incarceration, and separation/divorce [1]. ACEs also include (but are not limited to) parent/caregiver death (or the death of someone in the immediate family), exposure to intimate partner violence (IPV) among caregivers, experiencing discrimination and racism, exposure to neighborhood violence, and economic hardship [1].

ACEs are also critical risk factors for facilitating intergenerational transmission of trauma through biological and psychosocial mechanisms, as proposed through a variety of theoretical and empirical models (e.g., attachment theory, resilience theories) [14, 15].

Specifically, intergenerational transmission is discussed through both the negative impact that ACEs have on parent biopsychosocial functioning (especially as trauma increases vulnerability to stress and subsequent trauma via allostatic load and accumulation), and the resulting impact this has on the quality of caregiving/parenting attitudes and behaviors and caregiver-child relationships, including maltreatment [14, 15]. In turn, researchers have extended the large body of research on resilience against trauma to evaluate protective factors that buffer the intergenerational transmission of ACEs [5]. Prior work demonstrates that sources of resilience such as social support, access to resources, positive parenting education and mentorship, and spirituality can serve as protective factors against intergenerational transmission (e.g., maltreatment, punitive or negative parenting behavior) [15, 16].

Finally, more recent work has evaluated disparities of intergenerational transmission of ACEs and trauma within broader contexts of marginalization and oppression. For example, research focusing on the highly disproportionate rates of ACEs within minoritized racial groups (e.g., Black, Latinx, Indigenous) has emphasized the roles of racial and historical trauma, and systemic racism as overarching systems that perpetuate ACEs and trauma within individuals, families and communities across generations [17, 18]. Similarly, this work has also examined the sources of resilience that may be particularly important for not only breaking cycles of trauma, but also narrowing disparities. However, the majority of empirical research exploring this model has focused more broadly on trauma, rather than transmission of ACES [19].

ACEs, Intergenerational Transmission, and Resilience within Indigenous Contexts

There is growing body of theoretical literature as well as the wisdom of Elder and Knowledge Keepers documenting intergenerational transmission of trauma systems as well as ACEs among Indigenous peoples, including the Lakota people [20-22]. For example, in a qualitative study of Indigenous adults, Cromer, et al. [23] found that childhood trauma was related to family history of boarding school experiences, which increases risk for intergenerational transmission of ACEs given that the boarding schools desecrated the traditional family unit and exposed Indigenous children to myriad forms of violence and abuse. A handful of other studies, mostly qualitative, have examined intergenerational transmission of trauma among Indigenous persons although not specific to ACEs [24-26].

ACEs are especially prevalent among Indigenous peoples [3, 4]. For example, in South Dakota (the location of the current study), 83% of Indigenous adults reported at least one ACE, compared to 50% of non-Indigenous adults. Further, in a nationally representative sample of adults, Richards, et al. [4] documented disproportionately high rates of ACEs in Indigenous peoples compared to adults from other racial/ethnic groups. Furthermore, Indigenous peoples also reported the highest rates of specific types of ACEs, including childhood abuse (physical: 29%, emotional: 32%; sexual: 18%; physical neglect: 32%; emotional neglect: 32%), witnessing violence (17%), and parental substance abuse (33%).

ACEs among Indigenous peoples must be understood within the context of colonization and multiple historical traumas [27-30] as well systemic racism that produces egregious health disparities [31, 32]. For example, prior to colonization, racism, poverty, and other ACEs were nonexistent in traditional Indigenous communities. Further, childhood abuse (a specific ACE) was extremely rare if nonexistent, yet became much more prevalent among Indigenous peoples after cultural genocide (that tore at the fabric of the traditional Indigenous family) and forced placement in boarding schools (where multiple forms abuse, including physical and sexual, of Indigenous children was rampant) [9, 10, 27-30, 33]. Indeed, a pillar of Indigenous cultures is the importance of family, especially children and Elders [9, 10, 30, 34, 35].

Specific to the Lakota people (the focus of this study), children means “little sacred ones” (*wakanyeja*). Further, the *tiwahe*, immediate family, and *tiospaye*, extended family, are key to Lakota society and their social support systems. The *tiwahe* and *tiospaye* play important roles in caring for and protecting the *wakanyeja*. As such, mistreatment of children is the antithesis to Lakota culture. In addition to the importance of the *tiwahe* and *tiospaye*, shared language, traditional practices and belief systems, and active reciprocal kinship with one’s tribal community and homelands are considered pillars of Lakota culture [9, 10, 34].

Despite horrific mistreatment, Indigenous peoples, including the Lakota people, are highly resilient. A major source of resilience among Indigenous peoples is social support and cultural identity [9, 10, 34]. Although definitions and measurement of Indigenous cultural identity vary widely [36, 37], a common definition of Indigenous cultural identity is: “a sense of peoplehood inseparably linked to sacred traditions, traditional homelands, and a shared history as Indigenous peoples” [38]. This sense of connectiveness emphasized within Indigenous cultures incorporates biological, psychological, social, and spiritual dimensions (e.g., cultural or socio-cultural connectivity) [39]. Indigenous cultural identity and sociocultural connectivity are sources of strength for healing from intergenerational and historical trauma, in part through promoting and strengthening healthy relational ties and cultivating a sense of belonging (e.g., providing and receiving social support [40, 41].

Specific to ACEs, several studies have found that Indigenous cultural identity [42, 43] and social support [44, 45] buffer against the deleterious outcomes associated with ACEs among Indigenous people. Indigenous cultural identity is also related to lower rates of some forms of violence among Indigenous adolescents [46]. The extent to which Indigenous cultural identity and social support buffer against intergenerational transmission of ACEs within Indigenous families, however, has not been empirically examined to our knowledge. In other words, this is the first study, to our knowledge, to ever examine Indigenous cultural identity and social support as moderators of the relationship between caregiver ACEs and ACEs experienced by caregivers’ children.

Indigenous caregivers who identify strongly with their Indigenous culture might be less likely to engage in harsh parenting practices that were not traditionally utilized in Lakota society prior to colonization; colonization tore at the fabric of traditional Indigenous cultures and introduced violence, risk factors for violence (e.g., alcohol), and traditional systems of governance and trade networks. Such caregivers are likely to also have more closeknit

kin relationships that bridge the gap of support needed to care for children, thus lowering instances of child abuse, maternal depression, drug/alcohol abuse, and other negative health outcomes associated with increased ACEs [1]. Prior studies with African American mothers have shown that high maternal family support buffered the association between maternal ACEs and children's externalizing behaviors [47], and that social relationships reduce the effects of mothers' ACEs on infant outcomes [48]. Further, caregivers with high Indigenous cultural identity and social support may relay healthy, culturally congruent coping mechanisms (e.g., prayer, attending ceremonies), which likely reduces the likelihood of maternal depression, maternal substance use, and other ACEs.

Current Study

To date, no study has quantitatively examined if cultural identity and social support moderate the relationship between Indigenous caregiver ACEs and their children's experiences of ACEs, despite recent calls to further explore individual and community that may moderate the effect of parental ACEs that impact children's outcomes [49]. The purpose of the current study was to examine this gap in literature. Specific research questions and hypotheses are as follows:

Consistent with previous research cited above, it is critical to document rates of ACEs among Indigenous caregivers and children, given the health consequences of these experiences. Thus, research question 1 was: What are the rates of various types of ACEs (as well as the average number of types of ACEs) experienced by Indigenous caregivers and their children?

Cultural identity and social support have been found in previous studies to buffer against the deleterious mental health impacts of ACEs on individuals. Furthermore, Traditional Lakota highlights these factors as a major source of resilience. However, these protective factors have not yet been explored as potential mitigating factors for the intergenerational transmission of parental ACEs. Thus, research question 2 was: Do Indigenous cultural identity and social support moderate the association between caregiver ACEs and children's ACEs? Hypotheses: We hypothesized that at high levels of Indigenous cultural identity and social support, there would be a weak or non-significant relationship between caregiver ACEs and child ACEs. Conversely, we hypothesized that at low levels of Indigenous cultural identity and social support, there would be a positive and significant relationship between caregiver ACEs and child ACEs.

Method

Positionality

The proposed paper involves a collaboration between people with multiple professional and personal areas of expertise: multi-disciplinary researchers, practitioners, advocates, students, and community members including Elders/Traditional Knowledge Keepers. Our team is comprised of Indigenous people and white, non-Latine individuals; queer individuals and heterosexual cisgender individuals, and people with disabilities. Collectively, we are committed to efforts for prevention of and healing from violence and trauma

through community based participatory action research. Further, we believe that violence, adversities, and related public health and safety issues must be understood within a sociopolitical and historical lens, and that team members' power and privilege must be acknowledged and dismantled through reflexivity, decolonized approaches to research and practice, and a commitment to antioppression work.

Research Design and Setting

These data are part of a larger controlled trial to evaluate a culturally grounded, strength-focused, family-based program to prevent ACEs. The project took place in a small-sized city in South Dakota, which is in the Northern Great Plains region of the USA. This city is proximal to several large, highly impoverished, and rural Indian Reservations. Youths and their caregivers participated. To be eligible, youths had to be aged 10 to 14 and identify as either Indigenous,[1] and/or from a family living below the poverty line as determined by a series of screener questions (e.g., Does your family receive SNAP [Supplemental Nutrition Assistance Program], this is like food stamps? Are there items when your family feels like there is not enough money for things like clothes or food?). Participating adults had to be the caregiver of youths that met those same criteria. Caregivers were broadly defined and could be parents, grandparents, aunts/uncles, or anyone else who is the adult who takes care of the child participating in the program. In the current study, we excluded five non-Indigenous women given that questions about Indigenous cultural identity may not be relevant to non-Indigenous individuals. Further, in the current study, we excluded the 12 men given that intergenerational transmission of ACEs may vary by gender [50-52], and we were not sufficiently powered for subgroup analyses by gender. Also, we excluded one Indigenous woman who was an outlier on child ACEs; this caregiver reported that their child experienced all 30 ACEs in the past 6 months.

Relatives[2]

Participants included in the current study were 106 Indigenous women. The mean age of woman-identified caregivers was 40.4 years (SD = 10.2; range 21–74). All caregivers were Indigenous, but seven (6.6%) also identified as White and five (4.7%) also identified as Black. Furthermore, 11(10.4%) identified as Latinx. Ten (9.4%) identified as a sexual minority. Half (50.5%) reported that their annual family income was under $10,000, 21% reported that their annual family income was $10,001 to $20,000, 13.3% reported that their annual family income was $20,001 to $30,000, and 15.3% reported that their annual family income was more than $30,001.

Procedure

Confidentiality was ensured via a Certificate of Confidentiality from the CDC (funding organization), and the study was approved by the University of Nebraska—Lincoln IRB as well as the Indian Health Service IRB. The publication of this paper was approved by the Indigenous Advisory Board and the Indian Health Services IRB.

[1]Indigenous is used in place of American Indian and other terms sometimes used in literature to denote individuals with Indigenous identity as it is the term preferred by our community partners and advisory board members.
[2]We prefer to use relatives instead of participants as it honors the importance of Lakota kinship and is more respectful.

A variety of recruitment methods were used in the current project First, we posted recruitment ads on Facebook and boosted them so that individuals in the city and surrounding areas would see the ad. The social media ads reached over 30,000 people and received more than 4000 likes, comments, shares, and clicks. Second, we knocked on approximately 200 doors in neighborhoods with a large proportion of Indigenous peoples. Neighborhoods with our target population (e.g., Indigenous) were identified using publicly available census data coupled with income guidelines as well as knowledge of Indigenous staff immersed in the community. Third, we tabled at store fronts, as well as approximately ten events frequented by families, such as holiday and cultural events. Fourth, we held recruitment events such as a chili dog feed, where families could stop by for a meal and information about the project. Fourth, we posted fliers in community centers and businesses. Fifth, we asked community partners such as the local domestic violence programs, after-school programs, and other youth-serving organizations to distribute fliers and tell eligible families about the project. Sixth, staff used their knowledge of the community to recruit families less likely to be reached by other methods described above (e.g., families without houses or transient families). Families enrolled in the project also told other families about the project.

Interested families contacted the project team for a screening call. Eligible families then met a project staff to complete consent/assent. Written consent was gathered from all caregivers for their own participation. Legal guardians (usually the same caregiver who completed their own survey) consented for their youth to participate, and youths provided written assent. Legal guardians also provided consent for other caregivers to participate in programming sessions with their youth when applicable. After consenting, caregivers completed a baseline survey. All surveys were conducted on paper and administered by trained research assistants or project managers. Surveys were completed at the location of the program (a local church), at the project office, or in rare occasions when transportation was prohibitive, at caregivers' homes. Surveys were double entered by research assistants to ensure accuracy. Caregivers were compensated with $30 for the baseline survey (from where these data are drawn).

Measures

ACEs of Caregivers (Prior to 18) and Children (Last 6 Months)

Caregivers responded to 30 questions about their own experiences prior to 18 years of age. This measure was developed for this study to be inclusive of all possible ACEs (for information on the development of this measure [which included advisory boards member feedback and cognitive interviews] and psychometrics see Waterman et al., in preparation). Items for this measure (Table 1) were adapted after reviewing previous ACEs measures [53]. Caregivers also reported on ACEs experienced by their children in the past 6 months. Past 6 months was used for children given the purpose of the larger study was to examine if the intervention would reduce child ACEs over the 6-month follow-up period. Response options included were *yes* (1) or *no* (0). Similar items were asked to both caregivers and youth; however, items were adjusted to be developmentally appropriate. Items were summed such that higher scores, which could range from 0 to 30, indicated more ACEs for both caregiver

ACEs and caregivers' reports of their children's ACEs. Skewness for caregiver ACEs was 0.32; skewness for children ACEs was 0.70 (Tables 2 and 3).

Indigenous Cultural Identity

This measure was adapted from Orthogonal Cultural Identification Measure [54]. Items were also adapted from those created for previous research on a nearby Indian Reservation in previous research [46]. Caregivers were asked to answer seven questions based on their own experiences about their cultural identity on a Likert scale from *not at all* (0) to *a lot* (3). For example, "How much does your family do special things together or have special traditions that are based on Native American/ Indigenous/ Lakota/ Nakota, Dakota culture?" Caregivers' composite score was a mean of items, such that higher scores indicated higher levels of cultural identity. Internal reliability for this measure was good ($\alpha = 0.82$).

Social Support Survey Instrument

Caregivers responded to the emotional/informational support subscale of the Social Support Survey Instrument [55]. The scale included eight items such as, "Someone you can count on to listen to you when you need to talk" and response options ranged from *none of the time* (0) to *all of the time* (4). The composite score comprised a mean of the items, such that higher scores indicated higher levels of perceived social support. Internal reliability for this measure was good ($\alpha = 0.96$).

Data Analysis Plan

Regarding Aim 1, descriptive statistics were calculated to document the prevalence rates of distinct types of ACEs (frequencies) as well as the average number of types of ACEs experienced by Indigenous women caregivers. For Aim 2, we conducted Poisson regression analyses with caregiver reports of children's ACEs as the dependent variable (DV). Analyses were conducted with Stata; we included the vce (robust) option to obtain robust standard errors. We included caregiver ACEs (centered) and Indigenous cultural identity (centered) in the model, as well as the interaction. In a second regression, we included caregiver ACEs (centered) and social support (centered), as well as the interaction. In case of a significant interaction, we conducted follow-up analyses where caregiver ACEs was held constant, and two levels of the moderator was tested (+/− one standard deviation) to determine the direction of the interaction. Considering small sample size which can make it difficult to detect significant interactions [56, 57], we probed any interaction that was significant at the $p < 0.10$ level. All regression analyses included the covariate caregiver age and the average age of their children who participated in the study.

Results

Aim 1

On average, caregivers reported 11.39 ACEs ($SD = 8.48$; Range = 0–29) that they experienced as a child (before age 18). Caregivers reported that during the past 6 months their children experienced 4.53 ACEs on average (SD = 3.53; Range = 0–15). Table 1 reports the specific rates of each type of ACE for caregivers and their children.

Aim 2

In the first regression including Indigenous cultural identity, we found that the interaction of caregiver ACEs and Indigenous cultural identity was significant ($b = -0.036$; $p = 0.018$; IRR = 0.964). When Indigenous cultural identity was high (one standard deviation above the mean), caregiver ACEs were not associated with children's' ACEs ($b = 0.019$; $p = 0.136$; IRR = 1.019). When Indigenous cultural identity was low (one standard deviation below the mean), high levels of caregiver ACEs associated with higher levels of children's ACEs ($b = 0.058$; $p < 0.000$; IRR = 1.059). In the second regression including social support, we found that the interaction of caregiver ACEs and social support was not significant ($b = -0.008$; $p = 0.249$; IRR = 0.992).

Discussion

The purpose of the current study was to examine if Indigenous cultural identity and social support moderated the relationship between Indigenous women caregiver ACEs and their children's experiences of ACEs. Prior to conducting these analyses, we examined rates of ACEs experienced by caregivers prior to the age of 18 as well as ACEs they reported that their children experienced during the past six months. Rates of ACEs were alarmingly high, which is consistent with other research [3, 4] with Indigenous adults but extends previous research by focusing on recent ACEs experienced by Indigenous children. The fact that Indigenous children experienced on average four ACEs just in the past 6 months is alarming, given research showing that individuals who experience four or more ACEs compared to no or fewer ACEs are at increased risk for myriad deleterious health outcomes [1, 2]. Taken together, these findings suggest the urgency with which culturally grounded, strengths-focused prevention and response efforts are needed to address ACEs and their deleterious outcomes among Indigenous peoples.

Despite the high rates of ACEs, a highly promising and novel finding is that Indigenous cultural identity moderated the relationship between Indigenous caregiver ACEs and their children's experiences of ACEs. As caregiver Indigenous cultural identity increased, the (positive) association between caregiver and child ACEs decreased. Thus, caregiver Indigenous cultural identity may buffer intergenerational transmission of ACEs. Caregiver engagement in traditional practices and belief systems and adhering to Lakota virtues (e.g., love, respect, honor) may be less likely to engage in riskier behaviors and have healthier, more culturally congruent strategies for coping [9, 10].

However, contrary to hypotheses, social support did not moderate the association between caregiver and child ACEs. It is possible that a more holistic measure of social support capturing multiple domains (e.g., specific to parenting, instrumental, practical), and examining received social support in addition to perceived support would provide different results. The high levels of stress, strain, and need within many Indigenous communities, may result in caretakers requiring a higher level of support that what can be captured within the scale used. Additionally, as prior research in other populations has indicated that family health is an important buffer for intergenerational transmission of ACEs, considering the broader social contexts children live in may be more important than individual level perceived support [58]. Such constructs of family health are implicitly captured in the

cultural identity questionnaire used in the current study, by asking about family behavior. It is also important to note that the sample size was small and interaction effects are small and thus it could be an issue of now having sufficient power to detect an interaction effect. Thus, interpretation of this null findings is warranted.

Limitations

Several limitations should be noted. First the sample is relatively small and limited to one geographic region. Although we did not measure tribal affiliation, it is likely that that vast majority were either Oglala Lakota or Sicangu Lakota. There are over 570 federally recognized Native American tribes, among which there is vast heterogeneity. Thus, the extent to which these findings apply to other Indigenous communities is unknown, although Indigenous cultural identity and social support is likely an important source of breaking the intergenerational transmission of ACEs across Indigenous communities. Future research is needed to replicate and extend these findings to other tribal communities. Data were also cross-sectional and reported by caregivers, and child ACEs were measured past six months to correspond to our outcome evaluation rather than lifetime, all of which can be addressed in future, longitudinal, multi-informant research. Further, child ACEs were reported by caregivers. This measure may be biased; caregivers may under-report children's ACEs due to lack of knowledge or unwillingness to report sensitive topics such as child abuse. Research is also needed to examine the role of male and trans and gender diverse including Two Spirit caregivers, given that the vast majority of research to date, including this study, has focused on woman caregivers. There may also be limitations in how we measured Indigenous cultural identity. Capturing the complexity, nuances, and beauty of Indigenous cultures in quantitative measures is challenging and some may even say not possible. As such, future research that draws on the wisdom and guidance of Elders/Traditional Knowledge keepers is needed on how to best understand and examine Indigenous cultural identity within the context of empirical research studies. Another limitation is that we used counts of ACEs rather than examining if specific ACEs are more likely to be transmitted than others across generations, which is an important area for future research. There may also be important control variables (e.g., job status, educational background) that we did not measure. Finally, future research should include a broader understanding of ACEs experienced by the multiple caregivers' in children's lives (rather than just one caregiver) given that in many Indigenous cultures a multi-faceted, intergenerational approach to raising children is common.

Implications

Notwithstanding limitations, these data have critically important implications for practice and policy. First, these data highlight the need for initiatives that enhance Indigenous cultural identity and social support among Indigenous caregivers to prevent the intergenerational transmission of ACEs. Current Indigenous culturally-grounded prevention and intervention initiatives focus predominately on suicide prevention and substance abuse prevention [59-61]. Far less research has focused on the prevention of the intergenerational transmission of ACEs. Initiatives—such as family-based, strengths-focused, culturally grounded programs— that revitalize shared language, traditional practices and belief systems, and active reciprocal kinship with one's tribal community and homelands will

be especially beneficial [9, 10, 34]. These efforts are needed for children and families living on tribal and trust lands as well as urban Indigenous peoples who often report high levels of disconnection from their cultures [62, 63]. In addition to programing, school and district policies should require inclusive schools that celebrate and honor Indigenous cultures and teach accurate and critical history of Indigenous peoples in the USA, which may help to further instill Indigenous cultural identity in children that often feel invisible, thus contributing to breaking the intergenerational transmission of ACEs.

Efforts are also needed to build social support among Indigenous caregivers. One way to do this is through talking circles and arts-based activities. For example, in a recent implementation of photovoice with adult Indigenous (largely Lakota) women with histories of incarceration and multiple forms of trauma beginning in childhood, researchers documented that participation in photovoice provided space for women to heal and this healing was attributed largely to the sense of connection to other Indigenous women it provided (Edwards et al., 2022 in preparation).

Finally, we must also remember that we can never fully prevent ACEs among Indigenous peoples until we address egregious structural inequalities that perpetuate racism and poverty inextricably linked to ACEs among this population. At the same time, we must honor the strength, resilience, and courage of Indigenous peoples, including the little sacred ones (*wakanyeja*), and those fiercely fighting for their safety, well-being, and futures.

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Table 1

Rates of adverse childhood experiences among indigenous women caregivers ($N = 106$)

Specific ACE	Adult (prior to age 18)	Child (past 6 months)
Did an adult in your house or family swear at, insult, or put you down?	52.0% ($n = 53$)	20.0% ($n = 21$)
Did an adult in your house or family make you afraid that you would be hurt?	42.7% ($n = 44$)	3.8% ($n = 4$)
Did an adult in your house or family push, grab, shove, or slap you?	47.6% ($n = 13$)	6.6% ($n = 7$)
Did an adult in your house or family hit you so hard you had marks or injuries?	36.9% ($n = 38$)	1.9% ($n = 2$)
Did an adult touch you in a sexual way?	31.1% ($n = 32$)	0% ($n = 0$)
Did an adult have you touch them in a sexual way?	19.2% ($n = 20$)	0% ($n = 0$)
Did an adult try to have sex with you?	27.9% ($n = 29$)	0% ($n = 0$)
Did an adult actually have sex with you?	14.4% ($n = 15$)	0% ($n = 0$)
Did you not have enough to eat, have to wear dirty clothes, or have no one to protect you?	34.0% ($n = 35$)	4.8% ($n = 5$)
Did an adult in your house or family not take care of you, like feeding you or bringing you to the doctor?	28.4% ($n = 29$)	5.7% ($n = 6$)
Did an adult in your house or family push, grab, or slap an adult in your house or family?	39.8% ($n = 41$)	8.7% ($n = 9$)
Did an adult in your house or family kick, bite, or hit an adult in your house or family?	31.1% ($n = 32$)	2.9% ($n = 3$)
Did an adult in your house or family use a knife or gun on an adult in your house or family?	16.3% ($n = 17$)	1.0% ($n = 1$)
Did an adult in your house or family drink alcohol most nights per week?	55.3% ($n = 57$)	12.4% ($n = 13$)
Did an adult in your house or family use drugs?	35.2% ($n = 37$)	8.6% ($n = 9$)
Did an adult in your house or family struggle with depression?	52.9% ($n = 54$)	52.9% ($n = 55$)
Did an adult in your house or family struggle with anger?	54.3% ($n = 57$)	40.0% ($n = 42$)
Did an adult in your house or family struggle with anxiety?	49.5% ($n = 52$)	62.9% ($n = 65$)

Specific ACE	Adult (prior to age 18)	Child (past 6 months)
Did an adult in your house or family try kill themselves (attempt suicide)?	22.8% (*n* = 23)	5.8% (*n* = 6)
Did an adult in your house or family go to jail or prison?	42.3% (*n* = 44)	20.8% (*n* = 22)
Was there not enough money to buy food or clothes for you?	46.6% (*n* = 48)	23.1% (*n* = 24)
Did you see or hear violence in your neighborhood or at your school?	61.5% (*n* = 64)	47.6% (*n* = 50)
Did someone steal something from you or your family?	44.2% (*n* = 46)	29.2% (*n* = 31)
Did someone break into your home?	34.6% (*n* = 36)	7.5% (*n* = 8)
Were you treated badly because of your skin color?	41.0% (*n* = 43)	17.1% (*n* = 18)
Did an adult in your household or family die?	65.7% (*n* = 69)	26.4% (*n* = 28)
Did an adult in your house spend time away from their partner, like separation or divorce?	54.3% (*n* = 57)	17.0% (*n* = 18)
Were you in foster care?	17.5% (*n* = 18)	1.9% (*n* = 2)
Did a police officer or social worker visit your home?	41.0% (*n* = 43)	18.4% (*n* = 19)
Did you have a serious medical procedure or life-threatening illness?	13.3% (*n* = 14)	10.8% (*n* = 11)

Questions presented in the table were the ones administered to adults. Mirror questions with modifications were asked of adults about their child's (or children if more than one ages 10 to 14) experiences in the past 6 months

Table 2

Poisson regression analyses predicting children's adverse childhood experiences: cultural identity

	b	*SE*	*p*	95% CI (lower)	95% CI (upper)	IRR
Caregiver ACEs	.038	.009	.000	.021	.056	1.039
Cultural identity	.031	.165	.850	− .291	.354	1.032
Interaction	− .036	.015	.018	− .066	− .006	0.964

Analysis included age as a co-variate. *SE*, standard error; *CI*, confidence interval; *IRR*, Incident rate ratio

Table 3

Poisson regression analyses predicting children's adverse childhood experiences: social support

	b	*SE*	*p*	95% CI (lower)	95% CI (upper)	IRR
Caregiver ACEs	.031	.009	.000	.014	.048	1.031
Cultural identity	− .116	.069	.092	− .251	.019	0.891
Interaction	− .008	.007	.249	− .021	.005	0.992

Analysis included age as a co-variate. *SE*, standard error; *CI*, confidence interval; *IRR*, Incident rate ratio