Leveraging Rural Community Partnerships: Understanding Strategies of Resilience Among American Indians

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PACEs Lab — Protective and Compensatory Experiences

the Chickasaw Nation

OSU CENTER FOR HEALTH SCIENCES

Background

- American Indians (AIs) experience disproportionate mental health disparities[1] and have been underrepresented in research.[2]
- Emphasizing resilience and protective factors is crucial to reducing stigma and intergenerational disparities.
  - e.g. The Protective and Compensatory Experiences (PACEs) framework.[3]
- Establishing strengths-based research partnerships with a sovereign nation benefits both tribal communities and the field of psychology.

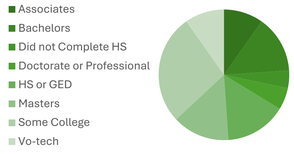
Study Aims

- To examine Adverse Childhood Experiences (ACEs[4]), Protective and Compensatory Experiences (PACEs[3]), and cultural factors in AI populations.
- To strengthen research partnerships between our academic institution and the Chickasaw Nation.
- To provide educational outreach and promote resilience-based interventions.

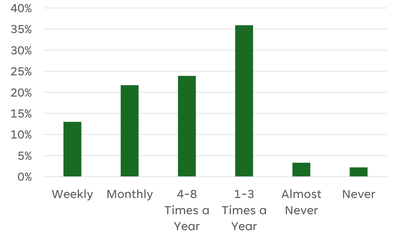
Participant Characteristics

- Participants (*n*= 146) completed 11 online surveys in areas of adversity, protective factors, culture, health, mood, and well-being.
  - Surveys were completed in REDCap, a secure online data collection platform.
  - Participants received a $25 gift card for participation.
- Poster analyses include a subsample (*n*= 92) of participants identifying as AI.
- Participants in the analyzed sample (82% female) were between the ages of 18-70.
- Recruitment occurred within the boundaries of the Chickasaw Nation.
- All participants resided in rural Oklahoma.

Education Level



Self-Reported Participation in Tribal Activities



A subsample of participants (*n*= 32) completed a one-on-one qualitative phone interview focusing on cultural strengths and resilience as part of the mixed methods study.

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Selected References

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Collaboration

Partnership • Built on established professional relationships with Chickasaw Nation staff • Regular research meetings ensured tribal expertise guided all aspects of the study	**Sovereignty** • Chickasaw Nation IRB approval sought and secured prior to institutional approval • All presentations and publications approved by Chickasaw Nation prior to submission
Community Engagement • Rural Scholars Program funds two undergraduate students to immerse in the community for 10 weeks • Summer 2024 and 2025	**Community Outreach** • Film screenings, panels, and presentations. e.g. NEAR Science • Community events • Ongoing through summer 2025

Protective and Compensatory Experiences (PACEs)

Supportive Relationships	Enriching Environment
Unconditional love	Regular routines
Trusted mentor	Safe living space
Best friend	Growth opportunities
Social group	Physical activity
Community involvement	Hobbies

Measures Selected for Analyses

Current PACEs α= .87	Protective and Compensatory Experiences Questionnaire[3] • 10 experiences within the last 12 months that promote resilience
ACEs α= .84	Adverse Childhood Experiences Questionnaire[4] • 10 questions about abuse, neglect, and household dysfunction before 18
Flourishing Scale α= .94	Current self-perceived well-being[5] • 8 items measuring psychological well-being in areas of relationships, self-esteem, purpose, and optimism
GAD-7 α= .93	Generalized Anxiety Disorder-7[6] • 7 self-reported anxiety symptoms
CES-D α= .92	Center for Epidemiologic Studies Depression Scale[7] • 10 self-reported depressive symptoms

Analyses

Quantitative analyses were conducted using SPSS to examine relationships between ACEs, current PACEs, and current mental health and well-being among AI participants.

Correlations were first examined, followed by regression analyses to further evaluate relationships while controlling for age, education, and gender identity.

Results

Means, Standard Deviations, Range, and Correlations

Variable	*M*	*SD*	Range	1	2	3	4	5	6	7	8	9
1. ACEs	4.08	2.95	0-10	—								
2. Current PACEs	3.99	0.70	2.1-5	-.39**	—							
3. Relationship PACEs	3.97	0.80	1.6-5	-.35**	.93**	—						
4. Resource PACEs	4.00	0.72	1.8-5	-.37**	.91**	.68**	—					
5. Flourishing	47.32	7.50	8-56	.08	.30**	.32**	.21*	—				
6. GAD-7	7.49	5.89	0-21	.33**	-.28**	-.27**	-.24*	-.10	—			
7. CES-D	16.22	11.77	0-54	.54**	-.48**	-.44**	-.44**	-.20	.72**	—		
8. Education	4.64	2.30	0-9	-.09	.06	.06	.05	.26*	.02	-.12	—	
9. Age	39.10	12.79	18-70	-.13	.11	.06	.14	.13	-.17	-.16	.18	—
10. Gender	0.21	0.48	0-3	.01	.04	.04	.03	.01	.08	.09	-.09	-.12

*p<.05. **p<.01*

Anxiety Symptoms

	b	SE_b	β	*t*	*p*
ACEs	0.55	0.22	0.24	2.29	0.03*
PACEs	-1.58	0.92	-0.19	-1.73	0.09
Controlled for: education, age, gender					
R^2= 0.41; *p*<0.01**; *p*<0.05*					

Depressive Symptoms

	b	SE_b	β	*t*	*p*
ACEs	1.57	.37	.40	4.25	.001**
PACEs	-5.47	1.56	-.33	-3.52	.001**
Controlled for: education, age, gender					
R^2= 0.40; *p*<0.01**; *p*<0.05*					

Flourishing

	b	SE_b	β	*t*	*p*
ACEs	.67	.27	.26	2.46	.02*
PACEs	4.03	1.14	.37	3.53	.001**
Controlled for: education, age*, gender					
R^2= 0.21; *p*<0.01**; *p*<0.05*					

AI participant subsample *n*= 92

Conclusion & Future Directions

Depression & Anxiety Symptoms

- As expected, ACEs are related to more self-reported depression and anxiety symptoms even when controlling for current PACEs. Similarly, current PACEs are related to less anxiety and depressive symptoms.

Self-Perceived Well-Being/Flourishing

- As expected, regression analyses indicate that current PACEs are related to higher well-being. Unexpectedly, regression analyses indicate that ACEs are also related to higher well-being.
  - This may suggest that among historically marginalized communities, such as AI populations, individuals are capable of thriving in adulthood despite childhood adversity. This may highlight the power of AI resiliency and be even more pronounced among individuals who experienced significant adversity as a child. Future studies should further investigate this link, particularly through the lens of resilience.
- To support ongoing flourishing, it may be important to encourage and promote current protective factors, particularly those enabling AI communities to preserve their rich culture.
- This research highlights respectful and collaborative research with a sovereign tribal nation as essential for meaningful progress in addressing mental health and well-being disparities.
- Qualitative analyses will deepen our understanding of community, family, and individual resilience factors in AI communities. Tribal participation connections will also be explored.
- Findings will inform PACEs curriculum development, enhance community education, and contribute to research aimed at reducing disparities in AI communities.