Resilience & gratitude as post-traumatic growth: Stress, coping, and mental health in American Indian Tribal College students

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  - Participating MT-WY Tribal Colleges, support staff, & participating Tribal College students

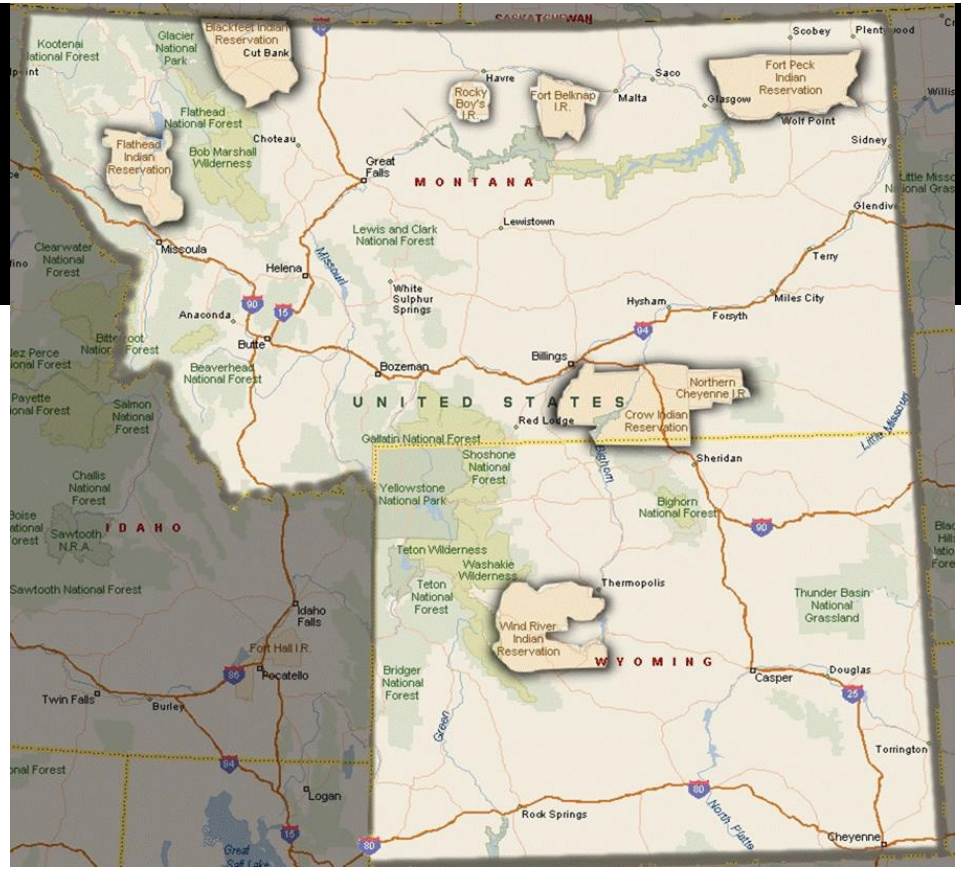
Goal

- Provide data to support youth perspective
- Look at correlations between perceptions of life stress, ways of coping with stress, resilience, gratitude, and perceptions of overall mental health
- Source of data
  - *Suicide and Resilience in American Indian Tribal College Students: The Role of Enculturation on Psychological Well-being*

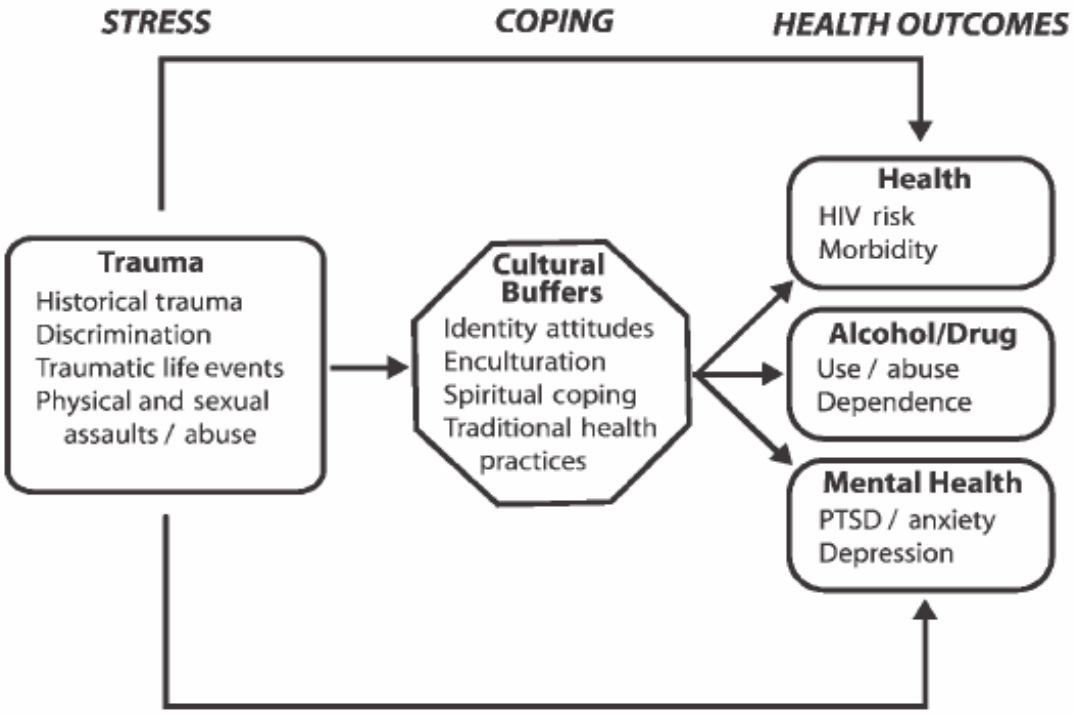
Study Background

- MT-WY Tribal Colleges
  - Fall 2012 – Fall 2013
  - On-line & paper surveys
- N=338
  - N=184 (complete cases)

- Incentives
  - Drawing at each school
    - Item valued @ $150/school



- IRB approvals
  - Rocky Mountain Tribal IRB
  - Tribal College IRBs or letters of support
  - WVU



Note. PTSD = posttraumatic stress disorder.

FIGURE 1—Indigenist model of trauma, coping, and health outcomes for American Indian women.

Previous Research

Adverse Childhood Experiences Study

- Kaiser Permanente & Centers for Disease Control and Prevention (CDC)
  - San Diego County, California
- Adverse experiences during age 18 & under
  - emotional, physical, and sexual abuse
  - battered mother
  - household substances abuse
  - mental illness
  - parental separation or divorce
  - household incarceration
- Strong and often graded relationship with many negative health outcomes
  - depression
  - alcohol and other drug abuse
  - partner violence
  - suicide attempts

American Indian Services, Utilization, Psychiatric Epidemiology, Risk and Protective Factors Project (AI-SUPERPFP)

- *Social Epidemiology of Trauma Among 2 American Indian Reservation Populations.* Manson SM, Beals J, Klein SA, Croy CD. 2005.
  - random sample of 15-57 year old tribal members (n=3084)
  - two tribal areas: Southwest; Northern Plains

- Traumatic events
  - Any type of trauma: 62.4-69.8%
  - Rape:
    - Female: 12.8-14.4%
    - Male: 1.4-2.4%
  - Physical abuse by caregiver: 6.0-10.8%
  - Partner abuse:
    - Female: 28.9-31.0%
    - Male: 3.6-9.2%
  - Someone close commit suicide: 12.7-18.6%

Current Study

Current Study Frequencies

- Participant characteristics
- Potential adverse events
- Ways of coping
- Potential consequences of adverse events
- Potential protective factors
  - Resilience & gratitude
  - Cultural identity
  - Spirituality

Participant Characteristics - Current

- Gender
  - Female: 61.5%
  - Male: 38.5%
- Age
  - <25: 51.2%
  - >=25: 48.8%
- Current income
  - <$10,000: 56.6%
  - $10,000-29,999: 25.7%
  - $30,000 & up: 17.7%

Family Demographics (when growing up)

- Household income
  - <$20,000: 43.5%
- Employment
  - > 50% of parents/caregivers employed full-time
- Education
  - > GED or higher
    - 80% of parents
  - 4 year college degree
    - 9%

Adverse Events

- Bullying (past year)
  - 20-38% of the participants reported being bullied
  - 7-22% said they had bullied others

- Discrimination (almost every day to a few times a month)
  - People act as if they're better than you are (47.7%)
  - People act as if they think you are not smart (33.4%)
  - Being treated with less courtesy (35.6%) or less respect (32.4%)
  - People think you are dishonest (26.7%)
  - People act afraid of you (24.4%)

  - Top reasons for experience:
    - Race, skin color, and where you live
  - Who:
    - Non-Native person (47.2%)
    - Native person (12.2%)
    - Both Natives and non-Natives (40.7%)

Traumatic Events

- Average of 6 lifetime traumatic events
  - Range: 0 - 18
- Any type of trauma: 93%
- Rape: 22.5%
  - Female: 19.2%
  - Male: 3.3%
- Physical abuse by caregiver: 24.5%
  - Female: 15.3%
  - Male: 9.3%
- Partner abuse
  - Female: 29.4%
  - Male: 8.9%
- Someone close commit suicide: 34.3%
  - Female: 22.7%
  - Male: 11.6%

Potential Consequences of Adverse Events

- Depressive symptoms
  - Average 16.6 out of 60 points
    - range 1-48 points
  - < 15 points: low level of depressive symptoms
    - 51.6%
  - 15-21 points: mild to moderate symptoms of depression
    - 18.6%
  - >21 points: a high level of depressive symptoms
    - 30.1%

Potential Consequences of Adverse Events

- Anxiety
  - Average of 5 out of 21 points
    - range 0-21
  - No anxiety symptoms
    - 29.5%
  - >= 10 points: somewhat high level of general anxiety symptoms
    - 19.7%

Potential Consequences of Adverse Events

- Posttraumatic stress disorder symptoms
  - Subscales: intrusive, avoidance, hypervigilance
- Criteria: having at least one symptom that occurs *sometimes* to *most of the time* from each subscale
  - 25%
- Average of 12 out of 32 points
  - range 0-29
- 2 most frequently reported symptoms
  - intrusive subscale
    - sudden emotional or physical reactions when reminded of the event
    - recurrent thoughts or memories of the event

Potential Consequences of Adverse Events

- Suicidal thoughts & actions
  - Seriously thought
    - 44.8% (n= 116) ever
    - 44.9% (n=48) past year
  - Planned
    - 26.5% (n=72) ever
    - 18.1% (n=15) past year
  - Attempted
    - 18.7% (n=50) ever
    - past year <n=5

Perceived Stress

- Overall
  - Average perceived stress score 18 out of 40 points
    - Range: 2 – 37
  - Feeling nervous and stressed (45.2%)
  - Unable to control important things in life (24.1%)
  - Confident about ability to handle personal problems (51.3%)
  - Felt on top of things (44.4%)
  - Felt things were going their way (44.1%)
- Academic
  - Average 2.7 out of 10 points
  - Range: 0 and 10
  - Beginning a new school experience (57.2%)
  - Financial problems concerning school (44.9%)

Common Coping Strategies

- Problem solving:
  - Self-distraction: doing something/taking action about the situation (51-59%)
  - Positive reframing: looking at it in a different light or looking for something good in it (61-64%)
- Emotional support (53-54%)
- Instrumental support:
  - Advise (57%) or help from others (52%)
- Religion
  - Pray/meditate (57%) or find comfort in religion/spiritual beliefs (51%)
- Humor
  - Make jokes (48%) or make fun of situation (30%)
- Venting
  - Let unpleasant feelings out (23%) or express negative feelings (37%)
- Substance use (16-19%)
- Self-blame
  - Criticize (30%) or blame (30%) self

Protective Factors

Cultural Identity

	The American Indian way of life	The White or Anglo way of life
Live by the following (a high amount)	30.9%	32.6%
Are/will be a success in (a high amount)	39.4%	42.3%
Does your family live by (a high amount)	36.6%	36.9%
Is your family a success in (a high amount)	39.4%	34.1%
How many of your family activities or traditions are based on…		
American Indian culture (a high amount)	42.6%	
White culture (a high amount)	43.7%	
How involved are you in…		
American Indian traditions & beliefs (a high amount)	44.9%	
White traditions & beliefs (a high amount)	27.6%	
How important is it for you to follow religious or spiritual beliefs that are based on…		
Traditional Indian beliefs (a high amount)	58.2%	
Christian beliefs (a high amount)	48.3%	
Languages spoken in home when growing up		
Tribal language (a high amount)	19.7%	
English (a high amount)	82.5%	
Can speak Tribal language		
Not at all	19.8%	
Not much/somewhat	71.8%	
A lot/very much	8.4%	

Spirituality

- Spirituality
  - Spirituality is important in life (77.3%)
  - Often spend time on religious/spiritual practices (48.3%)
  - Often seek comfort or guidance through religious/spiritual means (51.0%)

Resilience & Gratitude

- Resilience
  - I can get through difficult times because I've experience difficulty before (73.2%)
  - I usually manage one way or another (70.9%)
  - When I'm in a difficult situation, I can usually find my way out of it (68.0%)
  - I have self-discipline (64.8%)
- Gratitude
  - I have so much in life to be thankful for (86.5%)
  - If I had to list everything that I felt grateful for, it would be a very long list (80.3%)

Research questions

- What are the links between life stress, ways of coping with stress, resilience, gratitude, and overall mental health?
- Do coping strategies vary by age , gender, and/or other factors, such as childhood family income and parent education level?

Analyses

- Spearman Correlation
- Outcome variable
  - Overall, how would you rate your mental health over the past 12 months?
    - Poor: 4.9%
    - Fair: 16.3%
    - Good: 23.4%
    - Very good: 33.2%
    - Excellent: 22.3%

Significant Correlates of Mental Health

p<=.10

- **Perceived Stress*** p<.0001
- **Coping Mechanisms**
  - **Self Blame*** p<.0001
  - **Venting*** p=.0019
  - **Denial*** p=.0020
  - **Substance use*** p=.0114
  - **Disengaging*** p=.0138
  - **Reframing** p=.0422
  - **Emotional support** p=.0491
  - **Instrumental support** p=.1000
- **Spirituality**
  - **Seek comfort/guidance through religious or spiritual means** p=.0071
- **Resilience** p<.0001
- **Gratitude** p<.0001

*inverse relationship

Do coping strategies vary by …?

Coping Strategy	Gender	Age	Current income	Childhood Family Income	Mother's Education	Father's Education
Self-Distraction				√*		√*
Active						
Denial			√*	√*		
Substance use	√*Male	√*			√	
Emotional support					√	
Instrumental support	√Female			√		
Disengagement				√		
Venting						
Reframing						
Planning						
Humor						
Acceptance						
Spiritual Coping	√Female	√				
Self-blame					√	

Do resilience, gratitude, etc vary by …?

	Gender	Age	Current income	Childhood Family Income	Mother's Education	Father's Education
Resilience		√				
Gratitude				√		
Perceived Stress	√Female	√*				√
American Indian Identity (high)			√*	√*		
White Identity (high)			√			
Speak language				√*		
Spirituality important		√				
Often spend time on spiritual/religion		√		√		
Often seek comfort or guidance in religion/spirituality		√			√*	

Limitations

- Self-report
- Cross-sectional
- Volunteer
- Limited sample size
- Minimal community-level funding

Conclusion

- High levels of resilience, gratitude, & spirituality
  - Ease stress
  - Resilience & spirituality increase with time
- Coping strategies
  - Less healthy increase perceived stress levels
    - Coping with substances (significantly more younger males)
  - More healthy decrease perceived stress levels
    - Instrumental support (significantly more females)

References

1. Anda, R.F., et al., *Adverse childhood experiences and prescription drug use in a cohort study of adult HMO patients.* BMC Public Health, 2008. 8(198).
2. Chapman, D.P., et al., *Adverse childhood experiences and the risk of depressive disorders in adulthood.* Journal of Affective Disorders, 2004. 82: p. 217-225.
3. Dinges NG, Joos SK. Stress, coping, and health: Models of interaction for Indian and Native populations. Am Indian Alsk Native Ment Health Res Monogr Ser. 1988;1:8-55 discussion 6-64.
4. Dube, S.R., et al., *Adverse childhood experiences and the association with ever using alcohol and initiating alcohol use during adolescence.* Journal of Adolescent Health, 2006. 38: p. 444.e1-444e10.
5. Dube, S.R., et al., *Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the Adverse Childhood Experiences Study.* Pediatrics, 2003. 111(3): p. 564-572.
6. Dube, S.R., et al., *Adverse childhood experiences and personal alcohol abuse as an adult.* Addictive Behaviors, 2002. 27: p. 713-725.
7. Dube, S.R., et al., *Childhood abuse, household dysfunction, and the risk of attempted suicide throughout the life span: findings from the Adverse Childhood Experiences Study.* JAMA, 2001. 286(24): p. 3089-3096.
8. Felitti, V.J., *The relation between adverse childhood experiences and adult health: Turning gold into lead.* The Permanente Journal, 2002. 6(44-47).
9. Manson SM, Beals J, Klein SA, Croy CD. Social epidemiology of trauma among 2 American Indian reservation populations. Am J Public Health. 2005;95(5):851-9.
10. Walters KL, Mohammed SA, Evans-Campbell T, Beltran RE, Chae DH, Duran B. Bodies don't just tell stories, they tell histories: Embodiment of historical trauma among American Indians and Alaska Natives. Du Bois Review. 2011;8(1):179-90.
11. Walters KL, Simoni JM. Reconceptualizing Native women's health: An "Indigenist" stress-coping model. Am J Public Health. 2002;92(4):520-4.
12. Whitefield, C.L., et al., *Violent childhood experiences and the risk of intimate partner violence in adults.* Journal of Interpersonal Violence, 2003. 18(2): p. 166-185.

Thank you!

* Tribal Colleges students & staff

* Ladies & chaplains at the Montana Women's Prison

*Montana Wyoming Tribal Leaders Council

Questions?!?!?!

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