Impact of Unresolved Trauma on American Indian Health & Higher Education

Webinar
October 26, 2018
AIHEC Aseto’ne Network Project

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Pine Ridge Reservation
Kyle, S.D.
Traditional View of Public Health
American Indians and Alaska Natives as a Share of the Total Population, by State, 2009-2011

Total: 2.5 million = 1% of U.S. Population

American Indian and Alaska Native includes people of Hispanic origin.
SOURCE: KCMU analysis of 2009 - 2011 ACS.
Historical Context

[Map of the United States with the year 1492]
Historical Context
You will do well to try to inoculate the Indians by means of Blankettes, as well as to try every other method that can serve to exterminate this execrable Race. I should be very glad your scheme for hunting them down by Dogs could take effect; but I am not at too great a distance to think of that at present.
You will do well to try to inoculate the Indians by means of Blanketts, as well as to try every other method that can serve to Extirpate this Execrable Race. I should be very glad your Scheme for hunting them Down by Dogs could take effect...
Historical Context

[Map showing the United States in 1830]
Historical Context
VALUE OF AN INDIAN SCALP

Minnesota Paid Its Pioneers a **Bounty** for Every **Redskin** Killed

It is not generally known in latter day Minnesota history that the state treasury once paid out cash as bounties for Sioux Indian scalps, just as this and many other states are now paying for wolf scalps. State Treasurer Koerner yesterday, in looking over the 1863 report of State Treasurer Charles Schaff, discovered the following item among the disbursements of that year:

J. C. Davis, Sioux scalp, .......... $25

This item occurs in the list of disbursements, amounting in all to $7,870.06, under the head "Suppressing Indian War." The $25 paid to J. C. Davis for...
AI/AN Population by County

Source: U.S. Census Bureau, 2010 Census Redistricting Data (Public Law 94-171) Summary File, Table P1.
AI/AN Population Decline and Recovery, 1492 – 2010
Inter-Generational Basis for Chronic Disease Disparities Among American Indians and Alaska Natives

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Historical trauma is the collective emotional wounding across generations that results from massive cataclysmic events – Historically Traumatic Events (HTE)*

- The trauma is held personally and transmitted over generations. Thus, even family members who have not directly experienced the trauma can feel the effects of the event generations later.
Inter-Generational Basis for Chronic Disease Disparities Among American Indians and Alaska Natives

Historical Trauma

Genocide

Boarding School Experiences
- Abuse (physical, sexual)
- Neglect
- Abandonment
- Forced Removal
- Loss of culture & language
- Forced Christianity
- Lost traditional parenting & family structure

Gestational Stressors

Birth

Chronic Disease Disparities

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Epigenetics

- Epigenetics refers to the study of changes in the regulation of gene activity and expression that are not dependent on DNA sequence.
Inter-Generational Basis for Chronic Disease Disparities Among American Indians and Alaska Natives

Historical Trauma

- Genocide

Gestational Stressors

Birth

Childhood Stressors

WIC

FDPIR

Chronic Disease Disparities

Boarding School Experiences
- Abuse (physical, sexual)
- Neglect
- Abandonment
- Forced Removal
- Loss of culture & language
- Forced Christianity
- Lost traditional parenting & family structure

Adverse Childhood Experiences
- Abuse (physical, sexual)
- Neglect
- Substance Abuse in home
- Mental Health Dx in home
- Witnessing violence
- Divorce
- Food insecurity
- Family member in prison

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Impact of ACEs on Health

ACES can have lasting effects on:

- Health (obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, COPD, broken bones)
- Behaviors (smoking, alcoholism, drug use)

ACEs have been found to have a graded dose-response relationship with 40+ outcomes to date.
Impact of ACEs on Health & Higher Education

ACES can have lasting effects on:

- Health (obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, COPD, broken bones)
- Behaviors (smoking, alcoholism, drug use)
- Life Potential (graduation rates, academic achievement, lost time from work)

ACEs have been found to have a graded dose-response relationship with 40+ outcomes to date.

*This pattern holds for the 40+ outcomes, but the exact risk values vary depending on the outcome.*
Inter-Generational Basis for Chronic Disease Disparities Among American Indians and Alaska Natives

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Adverse Childhood Experiences
- Abuse (physical, sexual)
- Neglect
- Substance Abuse in home
- Mental Health Dx in home
- Witnessing violence
- Divorce
- Food insecurity
- Family member in prison

Adverse Adulthood Experiences
- Alcoholism & SA
- Suicide rates / death rates
- Poverty / Poor nutrition
- Racism / Toxic Stress
- Role models
  - Few positive
  - Many negative
  - Parenting

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Inter-Generational Basis for Chronic Disease Disparities Among American Indians and Alaska Natives

Historical Trauma

Gestational Stressors

Childhood Stressors

Adulthood Stressors

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  - Many negative
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Next generation
South Dakota Health Survey

The survey included questions on:

• Basic information, including age, sex, race;
• Self-reported health status, including chronic diseases, depression, and other health issues;
• Mental Health Screening;
• Access to services, including cost, distance, and other access issues; and
• Adverse Childhood Experiences.
<table>
<thead>
<tr>
<th>Employment status</th>
<th>AI</th>
<th>Non-AI</th>
<th>Total</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not employed</td>
<td>31.60%</td>
<td>7.58%</td>
<td>9.64%</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Employed part time</td>
<td>11.91%</td>
<td>19.63%</td>
<td>18.97%</td>
<td></td>
</tr>
<tr>
<td>Employed full time</td>
<td>49.59%</td>
<td>54.47%</td>
<td>54.05%</td>
<td></td>
</tr>
<tr>
<td>Retired</td>
<td>6.89%</td>
<td>18.31%</td>
<td>17.34%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Income (%FPL)</th>
<th>AI</th>
<th>Non-AI</th>
<th>Total</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;50% FPL</td>
<td>38.90%</td>
<td>12.73%</td>
<td>15.17%</td>
<td></td>
</tr>
<tr>
<td>50–138% FPL</td>
<td>22.48%</td>
<td>10.18%</td>
<td>11.33%</td>
<td></td>
</tr>
<tr>
<td>138–250% FPL</td>
<td>17.29%</td>
<td>22.46%</td>
<td>21.98%</td>
<td></td>
</tr>
<tr>
<td>250–400% FPL</td>
<td>11.13%</td>
<td>28.75%</td>
<td>27.11%</td>
<td></td>
</tr>
<tr>
<td>&gt;400% FPL</td>
<td>10.20%</td>
<td>25.88%</td>
<td>24.42%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th>AI</th>
<th>Non-AI</th>
<th>Total</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than high school</td>
<td>9.95%</td>
<td>3.23%</td>
<td>3.85%</td>
<td></td>
</tr>
<tr>
<td>High school diploma or GED</td>
<td>39.29%</td>
<td>32.40%</td>
<td>33.05%</td>
<td></td>
</tr>
<tr>
<td>Vocational or 2-yr. degree</td>
<td>24.86%</td>
<td>23.87%</td>
<td>23.96%</td>
<td></td>
</tr>
<tr>
<td>4-year college degree</td>
<td>22.47%</td>
<td>25.69%</td>
<td>25.39%</td>
<td></td>
</tr>
<tr>
<td>Advanced or graduate degree</td>
<td>3.44%</td>
<td>14.81%</td>
<td>13.75%</td>
<td></td>
</tr>
</tbody>
</table>
Self-Rated Health Status

Self-assessment of general health status

* Significantly different from urban population, adjusted for demographic variables
Prevalence: Mental Health Screens

Participants who screened positive for a condition using standardized mental health screening tools

* Significantly different from urban population, adjusted for demographic variables
<table>
<thead>
<tr>
<th>Adverse Childhood Experiences Domains</th>
<th>American Indian (n = 516)</th>
<th>Non-American Indian (n = 7078)</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abuse</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Abuse</td>
<td>30.10%</td>
<td>17.41%</td>
<td>.0008*</td>
</tr>
<tr>
<td>Physical Abuse</td>
<td>24.51%</td>
<td>12.31%</td>
<td>.0002*</td>
</tr>
<tr>
<td>Sexual Abuse</td>
<td>15.53%</td>
<td>9.60%</td>
<td>.0263*</td>
</tr>
<tr>
<td><strong>Neglect</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Neglect</td>
<td>25.87%</td>
<td>14.00%</td>
<td>.0005*</td>
</tr>
<tr>
<td>Physical Neglect</td>
<td>15.89%</td>
<td>2.78%</td>
<td>&lt;.0001*</td>
</tr>
<tr>
<td><strong>Household Dysfunction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother Treated Violently</td>
<td>23.76%</td>
<td>5.31%</td>
<td>&lt;.0001*</td>
</tr>
<tr>
<td>Household Substance Abuse</td>
<td>50.04%</td>
<td>21.49%</td>
<td>&lt;.0001*</td>
</tr>
<tr>
<td>Household Mental Illness</td>
<td>24.36%</td>
<td>13.89%</td>
<td>.0032*</td>
</tr>
<tr>
<td>Parental Separation or Divorce</td>
<td>39.34%</td>
<td>20.17%</td>
<td>&lt;.0001*</td>
</tr>
<tr>
<td>Incarcerated Household Member</td>
<td>22.57%</td>
<td>3.73%</td>
<td>&lt;.0001*</td>
</tr>
</tbody>
</table>
# AI ACE Disparities in South Dakota

<table>
<thead>
<tr>
<th>Number of ACEs (Score)</th>
<th>AI</th>
<th>Non-AI</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>16.84%</td>
<td>50.02%</td>
<td>&lt;.0001*</td>
</tr>
<tr>
<td>1</td>
<td>21.59%</td>
<td>23.02%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>16.20%</td>
<td>9.60%</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>12.99%</td>
<td>6.09%</td>
<td></td>
</tr>
<tr>
<td>4–5</td>
<td>13.10%</td>
<td>7.38%</td>
<td></td>
</tr>
<tr>
<td>≥6</td>
<td>19.28%</td>
<td>3.89%</td>
<td></td>
</tr>
</tbody>
</table>

Note
*statistically significant*
## Significant Challenges

<table>
<thead>
<tr>
<th>Social Determinants</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty</td>
<td>Health Disparities</td>
</tr>
<tr>
<td>Trauma</td>
<td>Education Inequality</td>
</tr>
<tr>
<td>Politics</td>
<td>Generational Poverty</td>
</tr>
<tr>
<td>Inattention/Neglect</td>
<td>Ongoing Racism</td>
</tr>
<tr>
<td>Racism</td>
<td>Worsening Inequity</td>
</tr>
<tr>
<td>Inequity</td>
<td>Suffering and Death</td>
</tr>
</tbody>
</table>

Need to address **equity** in a comprehensive manner—medical, behavioral, public health...
EQUALITY

EQUITY
Equality, Equity, Systemic Barriers
Research and Programming Needs

• Improve understanding of Historical Trauma
• How do we prevent ACEs?
  – Home visiting, parenting skills, community engagement
• How do we mitigate the impact of HT and ACEs?
• Develop a Diverse Workforce
• UND INMED & MPH Program
• PhD in Indigenous Health
A child is sacred. And when that child comes into the home, the family must welcome it. And if the child is happy and feels the want, he will come into this world very, very strong. And not to know this is to know nothing.