

NSF EPSCoR Track 1: Beyond the 2020 Vision: Building Research, Education and Innovation Partnerships for South Dakota

Integrating Native culture into Western Sciences

Shana Harming, Wokini & Tribal Relations Director, SDSU

Leon Leader Charge, SAMHSA TTAC, TYRC, USD

What is Indigenous Knowledge?

- **IK** is the sum of Indigenous culture, wisdom and skills held by Indigenous peoples of the world.
- **IK** contains all that can be encompassed by the Indigenous worldview, which includes:
 - values and beliefs,
 - history, political and economic systems, human relationships
 - Stewards of the land and environment = sustainability
 - and **science**.

Indigenous Knowledge, which includes Indigenous Science, differs from Western Science

- IK includes not only the physical but also the spiritual world.
- IK is based on the belief all things are all connected, the Lakota have a term for this, “Mitákuye Oyás’iŋ” or “We are all related.”
- The foundation of IK is the understanding that all creatures and creations (land, water, sky) communicate with one another, respect each other and look after one another.

Example: integrating Native culture into Western Science

- Traditionally, medicinal and food plants were and still are harvested in a culturally appropriate manner.
- When harvesting, handling or using medicinal or ceremonial plants it is vital to have good attitudes and thoughts.
- Some plants are twisted when picked from the ground and depending on if the plant was male or female the twist is either done clockwise or counterclockwise.

Example: integrating Native culture into Western Science

For many tribes, the cultural protocol for anyone harvesting plant medicines or when an animal is taken is to offer a pinch of tobacco at the place where the plant was removed or animal died.

- Tobacco is a sacred prayer plant and the placing of a pinch of tobacco in the ground reflects “giving back” to mother earth, our respect for her.
- A gift of tobacco should be offered to an Indigenous person when asking for help, guidance, or protection as a sign of respect.

Indigenous Knowledge

IK embodies a wealth of wisdom and experiences of nature gained over millennia from direct observation. IK is transmitted most often orally over generations.

Example of Western Science catching up with IK:

- Recently a team of researchers in northern Australia documented birds – kites and falcons, termed “fire hawks,” intentionally carrying burning sticks to spread fire.

Indigenous Knowledge

- While knowledge of the “fire hawks” was new to Western Science and the world these behaviors have long been known to the Indigenous peoples of northern Australia whose ancestors occupied their lands for tens of thousands of years.
- These Indigenous tribes incorporated the “fire hawks” behavior of spreading fire in their ceremonial practices, beliefs and creation accounts

Indigenous Frameworks & Methodologies Mental Health

The Intersection of Evidence-Based Practice and Indigenous Lakota Lifeways:

- Health behavior model- Biopsychosocial
 - Cangleska wakan-Tacan, Nagi, Tawacin, Tacante
- Theory of therapy- CBT/REBT
 - Anpo Wicahpi/Hteyetu Wicahpi
 - Wopila tanka
 - Wounsilapi

The Circle of Courage (Brendtro & Broken Leg)

The model was developed through resilience research and integrates the cultural wisdom of tribal peoples.

It is based on the universal principle that **to be emotionally healthy** all people need a sense of belonging, mastery, independence and generosity.

- Belonging
- Independence
- Mastery
- Generosity

Indigenous Frameworks & Methodologies

American Indian Life Skills Development Curriculum:

- Self-respect
- Self-esteem
- Communication
- Planning for the future
- Good decisions
- Reduce self destructive behavior
- Suicide prevention curriculum

Indigenous Frameworks & Methodologies

American Indian Life Skills Development Curriculum:

- Culturally competent and relevant to specific tribe
- Community based
- Evidence based approved by SAMHSA
- Facilitator's encouraged to utilize own tribal culture, language, and stories
- Core is identifying

Integrating Native culture into Western Sciences

- Historically ,Traditional Knowledge (TK) has not been valued.
- Today productive collaborations do exist between Western and Indigenous knowledge and methodologies in environmental research, land use, geographic information science, hydrology, health care, and mental health etc.
- Currently there are many cases where science and history are catching up with what Indigenous peoples have long known.

Pilaymaya Questions?

