

Special Needs Children: The Case for Traditional Foods & Medicine Wheel Teachings

Workshop Introduction

We explore the roles that indigenous diet and food traditions play in learning, attention, focus, socialization, and emotional inclusiveness.

- * How does nutrition play out in behavioural and learning challenges.
- * How can we spot allergies, sensitivities, and nutrient deficiencies.
- * How can the integration of traditions around food and other traditions in a Medicine Wheel approach can help children find healthy paths to flourishing in the classroom.

Background

- B.Sc. Hons in Holistic Nutrition
- Over 30 years clinical and field work in Holistic Nutrition and Community Health Consulting in USA, Canada, and Europe
- Shawnee, Muskogee, and Celtic heritages and traditions
- Foundation principle of my work: Recovery of community and individual indigenous traditions including food, spiritual practices, and community reconnection re-establishes sustainable health at all levels.
- Each child, family, & community has their own path to health - one size does NOT fit all!

- **Special needs present a trans-generational and cross-disciplinary challenge for our communities.**
- **We have “medicalized” learning & behavioural problems while ignoring many non-medical factors which can mitigate & heal, or cause & reinforce them.**
- **The effects of trauma, addictions, and poverty combined with the loss of traditional foods, lifestyle, and culture can be literally embedded in our genes.**
- **Children with special needs present an opportunity for using food and traditional in healing families and communities on many levels.**

GOALS

- Let's identify the obvious and the hidden influences on learning and behaviour.
- Let's look at how all these things interact.
- Let's explore how restoring many levels of traditional culture and healing can improve outcomes for children with special needs.

Modern & European Foods: More Harm than Good?

Why are modern foods so harmful to us?

What exactly is the harm that they do?

- The Diabetes Dilemma
- Sugar, Wheat, and Addictions
- Learning, Behaviour, and Food
- EFAs and Specific Brain Nutrients
- Food sensitivities, the immune system, and addictive brain chemistry
- Genetic Priming for Nutrients
- Food is Community and Spirituality - Our Identity & Connection

Modern & European Foods More Harm than Good?

The Diabetes Dilemma

- We are designed for insulin resistance to survive alternating feast and famine cycles of nature.
- We burned A LOT of calories and needed a lot of high quality fats and proteins.
- When we feast without exercise, we get fat and sick quickly, because our natural insulin resistance kicks in.
- “Healthy grains” make this syndrome much worse - they are literally fatal for Native Americans!

Modern & European Foods More Harm than Good?

Sugar, Wheat, and Addictions

- We did not eat grains or refined sugars for 10,000 years. We lack ability to digest them properly.
- Modern grains cause extreme blood sugar highs and lows, as well as addictive brain chemistry patterns.
- High fructose corn sugars have similar addictive effects.
- Highs, lows, and withdrawal mimic and can complicate other addictions.

Modern & European Foods More Harm than Good?

Learning, Behaviour, and Food

- High carbohydrate diets cause violent mood swings and concentration problems.
- Without “slow burn” proteins, children lose focus and concentration, become irritable and suffer withdrawal like symptoms.
- Some learning disabilities can become worse.
- Some children improve when gluten and dairy are removed from diet.
- All children improve when blood sugar levels stabilize.

Modern & European Foods More Harm than Good?

EFA's and Specific Brain Nutrients

- "Bad fats" and low fat diets deprive growing brains of essential building blocks for memory, focus, filtering, and emotional control.
- Brains and the Central Nervous System (CNS) need certain levels of B vitamins and minerals to work properly.
- Special needs children may have higher needs of these nutrients.
- Non-traditional diets are very deficient these essential nutrients.
- Some learning and behavioural disabilities can become more severe with nutrient levels which do not meet these elevated needs.
- Some children improve when gluten, dairy, and sugar are removed from diet, because those foods block absorption of needed nutrients or cause addictive brain chemistry.
- All children improve when blood sugar and nutrient levels stabilize.

Modern & European Foods More Harm than Good?

Food sensitivities, the immune system, and addictive brain chemistry

- Poor nutrition, antibiotics, heavy metals, and pre-natal substance exposure can all cause “leaky gut” and imbalances in gut flora.
- “Leaky gut” allows food molecules to get into the bloodstream, causing a variety of reactions including food sensitivities, allergies, poor digestion, addictive brain chemistry, and low immune system.
- Special needs children often have this condition - undiagnosed!
- Non-traditional diets can make this condition worse.
- Some learning and behavioural disabilities can become more severe.
- Healing the gut - the “second brain” - can dramatically improve a child’s physical and mental health.

Modern & European Foods More Harm than Good?

Genetic Priming for Nutrients

- Each tribe has eaten specific foods for thousands of years.
- Each geographical area offers a different set of nutrients.
- We have become genetically primed for certain levels of nutrients in our food - if food comes from elsewhere we suffer imbalances.
- Without those nutrients we get sick in different ways.
- Our tribal food traditions teach us what to eat, when, & how much.
- Most of our foods were eaten fresh, raw, dried or smoked - and full of enzymes so we could digest them efficiently.
- We cannot find the right healthy balance in foods that have had the nutrients taken away, or foods that give us untraditional balances of nutrients.

Modern & European Foods More Harm than Good?

Food is Community and Spirituality:

Our Identity & Connection

- Our bodies have a genetic memory for rituals and traditions as well as nutrients.
- Each geographical area has food which relates to seasons, landscape, and the spiritual traditions which have grown from cultivation, language, stages of life, and use of foods as medicine and nourishment.
- Our deep needs do not change even if we move someplace else.
- Without those nutrients and the cultural traditions around them, we get sick in different ways.
- Our tribal food traditions give us a sense of belonging, order, identity, and balance.
- Learning is a holistic process! The more levels of connections there are, the more learning takes place, allowing children to learn in the ways that their individual minds and bodies are best able to assimilate, process, and use the knowledge.

The Role of Trauma

- “Fight or Flight” – changes in our endocrine system
- Changes can become ingrained stressors
- Can they be inherited?
- What does that mean for health – mental, physical, spiritual, emotional?

Inherited Traits

- We inherit many things in our DNA
- Does trauma impact our DNA?
- Are these trauma changes inherited?
- Are these changes permanent?
- Can we change from one generation to the next?

Epigenetics

- The science of synergy
- Not the answer: the way to recover the answers
- Both external and internal events effect our DNA
- We are not condemned by our DNA
- Healing is not only physical - it is holistic
- Indigenous traditions are key to healing
- Medicine wheel approach to health

Effects of Trauma: Individual

- What happens when we are scared or angry?
- Adrenaline surge
- Insulin surge
- Use a lot of blood sugar, need to replenish
- Stop digesting in order to give energy to body
- Narrow mental focus on danger

Effects of Trauma: Generational

- Day after day – living with fight or flight
- Changes in our DNA to ensure survival in a trauma environment
- These changes passed to next generation
- New generations are primed for trauma which might no longer exist
- Their reactions precipitate and continue living out trauma
- Each generation embeds DNA changes

Healing Language of Traditions

- We must “speak” to our DNA on many levels
- Spiritual, Mental, Physical, Emotional
- Talk and walk the language of the traditions we knew for 10,000 years before the trauma
- Everything we say and do and experience changes our DNA - this is the wisdom of our traditions. We determine what we do and are.

Ancient DNA Codes

- Modern trauma codes are not our only DNA codes
- We have deeper codes – 10,000 years old
- We can talk to those codes
- We can awaken those codes to be more active, to help change and heal modern coding
- We have evidence that this works

Four Dimensions of Healing

- Our senses: seeing, hearing, feeling, tasting, touching
- Our relationships: personal, family, community
- Our spirituality and metaphysics
- Our traditions: personal, family, community

Examples of Healing

- Japan - Dr Masaru Emoto water crystallization
- Aerospace Institute Stuttgart - water memories
- Thailand - prisons that are villages, with their families, farming, and traditional spiritual practices
- Utah - Cooking and communal eating of healthy food reverses recidivism in young offenders
- Alberta - Long House traditional healing
- British Columbia - Cwenengital Aboriginal Society recovery program

21st Century Frameworks

- How can our traditions work now? Not on our land, no buffalo, GMO corn ...
- How do we “prepare” food now? Microwave, eating individually, isolated.
- Does this affect us – isn’t more veggies enough?
- Digestion, brain chemistry, and body chemistry are affected by how we cook, togetherness, community, and whether or not we feel happy, connected, and loved. Including loving ourselves.

Recovering Food Traditions

- We can recover, share, strengthen our traditional relationships with food
- Food was a community experience
- Growing, hunting, storing, preparing, eating, healing
- Food prepared with love

Busting Food Myths!

There are many food myths out there.

These include some about what Native American food is and is not.

Lets explore these myths ...

Busting Food Myths!

With the exception of some maize and wild rice eating tribes, most Native Americans did not eat grains in any significant amount and many ate no grains at all.

Native Americans normally had superior health and long lifespans.

Busting Food Myths!

Frybread is NOT traditional Native American Food!

- Trail of Tears starvation diet
- We are not genetically designed to eat this food - it makes us sick
- Promotes deficiency diseases

Busting Food Myths!

Some deficiency diseases we suffer from
non-traditional foods

- Eczema
- Beriberi
- Pellagra
- Biotin deficiency
- Rickets
- Scurvy
- Vitamin K deficiency
- Night Blindness
- Osteoporosis
- Ankylosing Spondylitis
- Birth defects
- Thyroid diseases
- Heart diseases
- Diabetes
- Obesity

Busting Food Myths!

Food sensitivities and behaviours

- **Wheat/gluten:** “brain fog”, lack of focus, over-reactive, digestive issues, joint pain, extremes in weight, picky eating, fatigue, hyper-active, schizophrenia/OCD/“bi-polar”.
- **Dairy:** Digestive issues, over-emotional/reactive, depression, obesity, painful bones, schizophrenia/OCD/“bi-polar”.
- **Food additives:** hyper-activity, lack of focus, aggression, depression, mood swings, schizophrenia/OCD/“bi-polar”.
- **Other foods:** “addiction” to a food, emotional extremes, hyper-activity, uncontrolled movements/tics, lack of focus

Busting Food Myths!

Food sensitivity identification

- Elimination changes behaviour. Re-introduction after 3 weeks returns behaviour.
- Food diary tracking - look for patterns over time.
- Food sensitivity is a different immunoglobulin reaction, requires a different test.
- Food sensitivities can take days and weeks to provoke a reaction - and also take a long time to clear the bloodstream and gut.

Busting Food Myths!

Destructive Dairy

- We are a "type O" people, most of whom have no enzymes to digest dairy.
- We did not herd dairy animals.
- Our minerals came from ground and root plants, animal and fish bones & marrow, and natural salts.
- Arthritis was almost unknown and treated with herbs.

Busting Food Myths!

Traditional Native American sources of calcium, magnesium, selenium, zinc, potassium, boron, and other essential minerals

- Bones and bone marrow
- Mineral salts
- Grass fed animal and fish
- Roots and ground vegetables
- Teas from certain barks, herbs, and leaves
- Seaweed
- Shellfish
- Foods cooked and preserved with seawater

Busting Food Myths!

Women were not “Lousy Hunters”

- Native Americans did NOT live on only meat, meat, and meat!
- Majority of “man-hours” devoted to securing food were by women gathering and growing.
- Non-animal foods could be up to 75% of diet.
- Vegetable foods were dried, sprouted & parched, or pounded into meat and fat (pemmican) to preserve them against lean times.

Busting Food Myths!

Staple Vegetable Foods of different tribes

- Maize (hard corn)
- Beans
- Gourds (pumpkins, squashes, other gourds)
- Wild rice and grass seeds (parched and sprouted)
- Fruits and berries
- Nuts and Pine nuts
- Roots and rhizomes (wild potatoes, yams, and carrots, fern roots, tubers, ground nuts)
- Tree and bush shoots (spring shoots)
- Wild vegetables (cabbages, garlics, lettuces, cruciferous plants)
- Mushrooms & funghi
- Flowers and herbs
- Seaweeds
- Kelp
- Algae

Busting Food Myths!

Gardening & Harvesting

- Both village-living AND nomadic tribes planted and harvested food.
- Slash & burn techniques renewed the soil and villages relocated periodically to sustain resources.
- Some tribes practiced “wild sowing” - this gave a regular food source and increased biodiversity.
- Fishermen also guarded their grounds, which prevented over-harvesting.

Busting Food Myths!

- Traditional farmed foods included “Three Sisters” (corn, beans, and squashes)
- Wild sown foods included rice, grasses, nuts, and some berries.
- Wild harvested foods included berries, fruits, nuts, fiddleheads, roots, barks, herbs, tree shoots.
- Wild harvested animal foods included clams, crabs, oysters, sea urchins, cockles, kelp, algae, and seaweeds.
- Wild harvesting was done sustainably, taking small amounts and sowing seeds in return.

The European Model

- Cause and effect are linear, vertical
- Isolation of individual elements
- Allopathic: treatment of symptoms
- Fragmentation – non-holistic approaches

Modern Treatment of Special Needs

- Special need is a disease/problem, not a symptom ... or an advantage.
- Focus on symptoms and disruptions.
- Address symptoms to “fix” the problem.
- If that doesn't work, use medication or restrictions to control.

The Indigenous Model

- Holistic and Multi-dimensional.
- Everything is related -
Interdependent - Mutual Effects
and Affects.
- Medicine Wheel approach to life
through creating balance.

One Size Does Not Fit All

- Indigenous traditions see disease & behaviour as the symptom of a larger imbalance.
- Understand the roots of imbalance.
- Heal the imbalance holistically.
- Heal the entire being – which can be and/or include a family, an entire community, the world.

Traditional Foods + Gardening = Measurable Improvements

Students who garden and improve their diets through experiencing traditional food producing and “from scratch” cooking have measurable results in many academic, social, health, and behavioural areas.

Traditional food producing & cooking Why and how?

Producing, sharing, and celebrating
traditional foods connects
classroom, community, families, &
culture together
through the enthusiasm, pride, and
skills of the youth and their
labours.

Traditional Foods + Gardening = Measurable Improvements

Better focus and behaviour in the classroom

- Steady blood sugars improve focus and ability to process material
- Increased engagement through personal relevance and visible/tactile results

Traditional Foods + Gardening = Measurable Improvements

Improved personal confidence

- At-risk students transition from “problem” to “provider”
- Calming positive influences of plants and contact with soil, nature, outdoors
- Direct measurable physical results of activity
- Something to contribute, give to others
- Ownership of something of value through own effort
- Pride in personal efforts, traditions, identity

Traditional food producing & cooking

Why and how?

Students who garden and improve their diets through experiencing traditional food producing and “from scratch” cooking have measurable improved results in:

- Classroom learning
- Behaviour
- Communication
- Health

Traditional food producing & cooking

Why and how?

Traditional health and gardening integrates with every study area:

- Math
- Science
- Social Studies & Civics
- Health & Home Economics
- Physical Activity
- Language Arts
- Arts & Music & Crafts

Traditional Foods + Gardening = Measurable Improvements

Measurably improved learning outcomes in
core academic skills

- Relevance and creative student approaches to materials
- “Real time” applications to practice skills
- Engagement of creativity helps underachievers (soft challenges)
- Provides non-traditional and hands-on problem solving (alternate skill building)

Traditional Foods + Gardening = Measurable Improvements

Develop communication skills, empathy, and community values

- Must collaborate to achieve results
- Everybody has a value to the project
- End users are beyond the students themselves
- Care & nurturing of plants teaches empathy

Traditional Foods + Gardening = Measurable Improvements

Empowerment to affect family and community

- Interest and discussion about larger health issues
- Students become teachers and role models
- Lobby for change (in family diets, local stores, tribal programs)
- Gain understanding of their history and are empowered by it
- Students experience positive physical and behavioral changes in self and others

Traditional Foods + Gardening = Measurable Improvements

Reduced truancy and disciplinary issues in school

- **Stable health and meaningful engagement lay personal safety foundations**
- **Improved empathy and self governance**
- **Learn collaborative & social skills**
- **Improved learning outcomes increase self respect and confidence**

Traditional Foods + Gardening = Measurable Improvements

Fewer sick days & more evenly sustained energy

- **Better diet improves immune systems**
- **Stable blood sugars and improved nutrients give energy and endurance**
- **Weight loss and improved coordination and energy make sports participation easier, more fun**

Traditional Foods + Gardening = Measurable Improvements

Lower child diabetes and obesity rates

- Combination of better diet and physical activity prevents weight gain
- Reduction in junk foods positively impacts insulin resistance
- Knowledge about foods results in pro-active healthy food choices
- Own health experiences can be “paid forward” to others through example

Traditional Foods + Gardening = Measurable Improvements

Reduce paths to addiction, poverty, and criminality

- Improved educational outcomes
- Stabilize emotional and social behaviors
- Provide healthy food to self, family, and community
- Connection to traditional values
- Meaningful & measurable results of own positive efforts
- Independence and sustainability - reduced dependency mentality

Traditional Foods + Gardening = Measurable Improvements

Create & embed life-long positive health habits

- Develop taste for healthy foods
- Equate food with energy and learning in a positive dynamic
- Peer to peer support and knowledge exchange embed healthy habits
- Pride in traditional foods and traditions develops positive feedback loop

Traditional Foods + Gardening = Measurable Improvements

Develop new healthier role models and images of
Native Americans

- Lean energetic, healthy
- Pride and participation in food traditions
- New confidence resulting from sustainable food independence
- Transition self image from powerless problem to providing producer
- Control of food from ground & seeds to distribution & table = independence

Traditional health and gardening touches EVERY study area!

Traditional Foods activities can be integrated into the entire curriculum. Every subject can be connected to a core subject in some way.

This connection makes studies more relevant and interesting.

For many students, the hands-on applications can help their academics and focus.

Traditional health and gardening touches EVERY study area!

Math

- Basic algebraic skills (how many seeds, counting harvest, cooking measures)
- Geometry (design garden layouts, calculate produce per sq foot, design storage)
- Statistics (production, distribution, relations to weather and other variables)
- Basic engineering (constructing garden beds, trellises, storage, distribution)

Traditional health and gardening touches EVERY study area!

Reading

- Comprehension (instructions for planting and other tasks)
- Writing (instructions, plans, reports, promotions, menus, recipes, poetry)
- Organizing thoughts and communications (reports, essays, planning, communicating traditions and other knowledge and feelings)

Traditional health and gardening touches EVERY study area!

Science

- Biology Biology (plants & trees, soil, pollination, insects, wildlife)
- Geography (What grows where, food storage conditions, location influence on diet)
- Geology/meteorology (Weather, drought, rivers, soil conditions, climate change)
- Chemistry (Nutrients, fertilizing, storage & preserving)
- Ecology/environment (farming, hunting & gathering, climate change, topsoil erosion)
- Scientific method (Experiments, tracking outcomes, collecting data, research)

Traditional health and gardening touches EVERY study area!

Social Studies

- History (research of food traditions, changing influences on food and people)
- Food related behaviour (feast & famine, migration, nutrition & disease, addictions)
- Economics & politics (commodity foods, GMO, distribution economics, local foods, food independence and sustainable communities)
- Food distribution (storage and delivery, prices, climate change, food sharing traditions)

Traditional health and gardening touches EVERY study area!

Civics, Spiritual, and Community Values

- Collaboration (decision making, garden designing, planting & harvesting, storage & feasts, distribution)
- Planning (garden layout, choice of plants, task management, calendars)
- Working for greater good (food sharing traditions, healthy community, sustainability)
- Respect for all living things (nurturing and blessing, wild harvesting - how much is enough or too much)
- Connecting to, and reviving, shared traditions around planting, harvesting and feasting

Traditional health and gardening touches EVERY study area!

Physical Activity & Education

- Building and preparing plant beds and/or retaining walls
- Digging, sowing, weeding, irrigating, harvesting, distribution, storage
- Teamwork and seeing direct results of activities
- Creating games and friendly competition between teams/classes/grades
- Safe physical work habits

Traditional health and gardening touches EVERY study area!

Art, Poetry, Storytelling, and Music

- Design of planting areas
- Posters and promotions, school newsletter
- Photography, drawings, paintings of the garden
- New and traditional songs and drumming, poetry and other writing and storytelling

Traditional health and gardening touches EVERY study area!

Home Economics and Healthy Living

- Nutrition basics and connections
- Cooking skills, storage, budget and meal planning
- Learning how to research traditional foods & diets
- Reviving and practicing family and community food traditions
- Understanding seasonal foods and nutritional patterns
- Direct experience of the effects of food on behaviour and health

Interactive 1: Spiritual/Emotional Food

- What is it in food that really feeds us?
- Why are foods we grow and prepare ourselves more healthy?
- Prayer & gratitude of community food vs humiliation and disempowerment of commodity food?
- Empty food: not ours, powerless over source, empty of love and nutrients, empty of connection to our ancestral DNA - does that make a difference?

Indigenous Diet Interactive 2

- **Community makes a difference - how can our community help our special needs kids through food?**
- **Hunters and providers - how can we instill this knowledge and ability? Who are our resources?**
- **How can we justify doing this: budget, funding, time, resources?**

Interactive 3: Plans & Goals

- **Is more training needed for staff - more knowledge & skills base? What areas?**
- **Are there programs to link into and adapt?**
- **Collaboration with medical providers?**
- **What resources would you want to have?**
- **What results would you like to see?**

The Path to Our Healthy Traditions

Modern Fast Food Culture ... Isn't

Food is not only the ingredients it is made of.
It is how we cook, serve, and eat our meals.

Fast food takes away a huge part of who we
are as human beings.

Fast food denies us our spiritual connections to
each other and our land.

Fast food impoverishes our bodies and robs us
of our family traditions and our skills for taking
care of ourselves.

The Path to Our Healthy Traditions

Fast Food “Unculture”

- Modern children don't know where their food comes from
- Basic cooking skills are being lost
- Fast foods are addictive and unhealthy
- Babies are born with nutritional deficiencies and health/learning problems result
- There are no traditions or connections with who we are in fast food

The Path to Our Healthy Traditions

- Preparing food from scratch awakens healthy appetite and lifts our mood
- Preparing and eating together builds family connections
- Traditional foods give ALL children a place
- When children prepare food they have grown they grow pride and traditional knowledge
- Traditional foods give life - physical, emotional, spiritual, cultural and community

The Path to Our Healthy Traditions

Growing our Food = WHO WE ARE

- When we know the reasons for our foods we are more interested and love our food traditions ...and ourselves
- Together with our children we can rediscover who we are and literally grow it back into our lives
- A drum song about corn is not just a song when you have grown that corn, nursed it through a hot dry summer, and shared it at a feast. It is WHO YOU ARE.

The Path to Our Healthy Traditions

For more information:

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