



For further information
 Center for World Indigenous Studies
 140 1001 Cooper Pt. Rd. 214
 Olympia, WA 98502
 866-886-0117
 www.centerfortraditionalmedicine.org

Cultural Respect and Tribal Participation

This study is designed to address health disparities among American Indians and Alaska Natives.

A tribal consultative group contributes to study design, recruitment and dissemination of results. At the end of the study period, the results will be shared with families, tribes, the general public and the scientific community.

Participants

Participants are recruited from on, near and off American Indian reservation sites in western Washington. 50% of the participants who have completed the study are Salish Tribal members. Referral sources include health providers, community clinics, cultural programs, and word of mouth.

In the preliminary sample (N=12) for which we currently have completed data collection, the mean age is 50.2 years and two participants are men. The average duration of care provision is 5.2 years, with a range of 1 to 17 years. Seven participants are daughters of the care receiver, two are sons, two are wives and one is a niece. 58 percent of the sample have attended or completed college, one participant holds a graduate degree and 25 percent have completed high school or the equivalent.



Polarity Therapy for American Indian Family Dementia Caregivers

Leslie E. Korn, Ph.D., MPH, RPP, Rudolph C. Rjyser, Ph.D., Alfredo Gomez-Beloz, Ph.D., MPH, Sandy Loytomaki, BS, Clara Berridge, MSW (Cand.)
 Center for Traditional Medicine, Center for World Indigenous Studies, Olympia, WA

Background

Caring for a patient with moderate to severe dementia creates conditions of chronic stress for the caregiver. Caregivers experience a greater risk of depression, more illness days, more physician visits, increased fatigue and increased risk of mortality than non-caregivers. The purpose of this study is to investigate Polarity Therapy as an intervention for the prevention and treatment of caregiver illness.

Very few studies have evaluated touch therapies or Complementary and Alternative Medicine (CAM) methods as interventions for dementia caregivers. No studies have evaluated a subtle energy/touch therapy intervention. Polarity therapy has not been the subject of a controlled, clinical trial or feasibility study until now.

Methods

This is a randomized, single blind, controlled clinical trial of 40 American Indian and Alaska Native urban and rural participants comparing intervention (polarity therapy) to an active placebo (respite care) group. Informed consent is obtained prior to enrollment. Participants are randomized based on high stress/low stress scores using the Perceived Stress Scale at week one and assigned computer generated numbers.

Intervention

The intervention group receives a standardized polarity therapy protocol once weekly for 50 minutes, for 8 weeks. The intervention is provided at the Center for Traditional Medicine or in tribal clinics with a room and treatment table. Polarity practitioners and/or massage therapists are trained in the protocol and follow a manual of guidelines. Active placebo group participants receive up to 3 hours of respite coverage weekly for 8 weeks during which time they may choose any activity for their "time off."

Measures

Biological and physiological measures are obtained at weeks 1 and 9:

24 Hr. Heart Rate Variability & Autonomic Assessment Report (The HeartMath Institute) Medical Exam
 24 Hr. Salivary Cortisol & DHEA (Diagnos-Techs, Inc.)

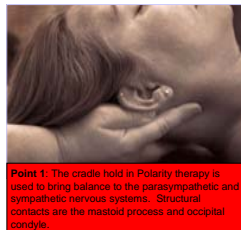
Subjective self reports are obtained at weeks 1, 2, 5 and 9:

Pittsburgh Sleep Quality Index Quality of Life-AD
 Health Status Questionnaire Penn State Worry Questionnaire
 Center for Epidemiologic Studies Depression Scale Perceived Stress Scale

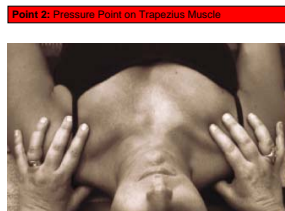
Qualitative interviews are conducted weeks 2 through 9.

21-Point Standardized Polarity Protocol

Polarity therapy is a biofield touch therapy that evolved from an integration of traditional Ayurvedic medicine and the manipulative therapy traditions of early 20th century Osteopathic medical practitioners. For this study, a standardized 21-point protocol was designed for the purpose of inducing parasympathetic dominance and balancing the human biofields.



Point 1: The cradle hold in Polarity therapy is used to bring balance to the parasympathetic and sympathetic nervous systems. Structural contacts are the mastoid process and occipital condyle.



Point 2: Pressure Point on Trapezius Muscle

Table corresponds to Point 2:	
Polarity Therapy	Superior positive pole of diaphragm: Respiratory reflexes flow into arms and down body (right side) and up arms and body (left side) – electromagnetic currents.
Structural	Trapezius fascia
Muscles	Trapezius
Nerves	Efferent - External branch accessory nerve Proprioceptive via 3 rd and 4 th spinal nerve Cutaneous - medial branch C4-6
Acupressure	GB 21 Release neck and shoulder tension. Reflex to gall bladder.
Reflex Zone	Dermatome: C4-6 Lingual: 4.5

Preliminary Findings

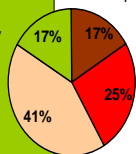
Caregivers have depressed baseline awakening cortisol levels

Table 1. Mean Awakening Cortisol for all American Indians compared to normal range.

Mean (± SD) Awakening Cortisol (nM)	Normal Range Awakening Cortisol (nM)
9.00 ± 4.02	13-24 nM

Based on Diagnos-Techs, Inc. values.

History of Trauma Chronic stress and history of trauma affects hypothalamic-pituitary-adrenal axis function and may affect participant response to treatment. 83% of American Indian participants have experienced traumatic events, in contrast to 50% (N=10) of non-Indian caregivers participating in a parallel study.



■ No Event
 ■ 1 Event
 ■ 2 Events
 ■ 3 or More Events

Fig. 1. Percentage of participants reporting traumatic events.

Polarity treatment decreases perceived stress

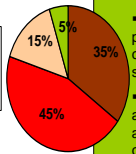
Table 2. Mean (±SD) PSS score at week one and week 9 for American Indians overall, and in intervention (polarity therapy) and active placebo (respite care).

	Week 1	Week 9	p-value
American Indians (n=12)	18.67 ± 8.53	14.33 ± 7.01	.061
American Indian, Treatment Group (n=8)	19.50 ± 6.44	12.75 ± 5.41	.014*
American Indian, Control Group (n=4)	17.00 ± 12.83	17.50 ± 9.57	.908

*Statistically significant, p < 0.05

Fig. 2. Percentage of types of traumatic events reported by 10 of 12 participants.

■ Accidents
 ■ Interpersonal Violence
 ■ Natural Disaster
 ■ Boarding School



Funding

The project described is supported by Grant Number 1R21AT001627-01A1 from the National Center for Complementary and Alternative Medicine. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the National Center for Complementary and Alternative Medicine, National Institutes of Health. Additional support is provided from Assured Home Health and Hospice and Lewis-Mason-Thurston County Area Agency on Aging. Institutional Review Board approval was obtained through the National College of Naturopathic Medicine, OR.

Tribal Consultative Members

Henry Cagay, Lummi
 Sheryl Lowe, Skiatiam
 Connie McCloud, Puyallup
 Monica Charles, Skiatiam
 Zelma McCloud, Nisqually

Acknowledgements

Anastasia Brenck, LMP
 Candace Chaney, RN
 Kamal Henn, MD
 Trish Hinman, LMP
 Evan Hirsch, MD
 Lori Jarvis, Ph.D.
 Rebbecca Logsdon, Ph.D.
 Rollin McCraty, Ph.D.
 Pamela Morton, ARNP
 Nayak Pollisar, Ph.D.
 Amy Robertson, LMP
 Mary Ann Shwenka, ARNP
 Tiffany Waters, BA

Qualitative Measure

Qualitative data collection and analysis provides an opportunity for participants to "give voice" to their experiences. Qualitative data is collected for a total of 10 minutes each week during intervention and control activities and coded using Ethnograph® v5.0 software. Four major domains - physical, mental, emotional and spiritual - are coded along with 28 sub domains. Sub-domain code examples include: trust, resentment, gratitude, family stressor, worry, detachment, energy flow, dual roles, soreness, pain, sleep, tingling, gas, self-care, phenomenological, self-awareness and coping

Qualitative data examples:

Self-awareness: Participant 1, Week 6
"It was like energy flowing, relaxing...I'm becoming aware of how we don't do that in life and am getting in tune, take time out. It's amazing what your body tells you."

Phenomenological: Participant 1, Week 7
"I was noticing some motion, not throbbing, like filling up like a gas tank guzzle, guzzle. I feel that motion of filling up like a wave. I was feeling this warmth come over me. I feel like I can go out there and take everything on."

Coping: Participant 2, Week 4
"I left last week and went to a meeting that was very negative. I was able to frame it and it was well received. I'm going to sleep earlier, sleeping more soundly. My level of peace has increased, [I'm] more comfortable in the moment."

Discussion

- Depressed awakening cortisol levels and perceived stress scores suggests that this caregiver population experiences high levels of stress.
- Depressed baseline awakening cortisol levels among all participants suggests a hypoactive adrenal response, typically associated with chronically high levels of stress.
- Polarity therapy significantly reduced perceived stress in the treatment group.
- Sample coding of qualitative interviews reveal a range of meaning-making constructs in areas of self-awareness, coping and (somatic) phenomenology in response to Polarity therapy.