

# Poster Abstracts from the 16th Annual International Restorative Medicine Conference

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DOI 10.14200/jrm.2019.0105

## YOGA THERAPY TO IMPROVE WELLBEING FOR A WOMAN HEALING FROM INFERTILITY CHALLENGES: A CASE REPORT

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### INTRODUCTION

Infertility stress can be defined as the overload of stress that comes from struggling with infertility and often includes: anxiety, depression, social isolation, and diminished quality of life. Other common physical issues that women with infertility may suffer from include fibroids, ovarian cysts, fallopian tube obstruction, and hormonal imbalances. Research has shown yoga is an effective complementary approach to improve the success rate of those choosing assisted reproduction technology, such as in vitro fertilization (IVF). This case report describes the benefits of private yoga therapy (PYT) for a woman with infertility challenges to improve overall wellbeing and decrease suffering physically, energetically, and emotionally while cultivating equanimity regardless of outcome.

### PARTICIPANT

A 38-year-old female with an 8-year history of infertility, fibroids, ovarian cysts, uterine scarring, and painful menstruation underwent two myomectomies and a few failed attempts at IVF. Information was collected from 16 PYT sessions with client seeking pregnancy and improved sleep. Clinical findings show the client's lack of body awareness in low abdomen and pelvis, worry of fibroids returning, and infertility stress. PYT intervention.

### INTERVENTION


Various yoga tools including postures, breath work, mindfulness, and meditation practices.

### RESULTS

Over 5 ½ months, the client has experienced improved sleep, healthy menstruation, and cessation of fibroid growth. Along with consistent yoga practice, infertility stress was reduced through intention setting, social support, and relinquishing need for control over a pregnancy outcome.

### CONCLUSION

PYT may be an effective complementary health strategy to diminish infertility stress including impact on sleep, menstruation, fibroids, social support, worry or control over outcome.

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## YOGA THERAPY OFFERS A MULTIDIMENSIONAL METHOD FOR WORKING WITH A COMPLEX CLIENT: A CASE STUDY

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### INTRODUCTION

Yoga therapy offers a unique approach for the various concerns of the complex client. Through its versatility and adaptability, yoga therapy can address the primary concern, as well as co-existing and ongoing diagnoses. Research has shown yoga may be effective for obesity, ADHD, anxiety, depression, stress, and improved wellbeing.

### PARTICIPANT

The client sought yoga therapy for obesity, ADD, anxiety, and depression. She was already under the care of a medical doctor, psychiatrist, and ADD coach. While her main goal was to address physical concerns, she also expressed mental concerns mostly related to high work stress.

### INTERVENTION

Yoga postures, breathing practices, guided meditations, and an affirmation were introduced and adjusted to her concerns.

### RESULTS

The client completed a validated assessment instrument, Measure Your Medical Outcome Profile (MYMOP2) at the beginning of each session. She attended six sessions over seven months. Through yoga therapy, the client presented with more focus, an improved wellbeing score on MYMOP2, and the ability to engage in physical activity including resilience to set backs in pain. Due to the variety of concerns presented, co-occurring alongside two pre-existing diagnoses, yoga therapy offered multiple approaches and demonstrated its ability to address a variety of concerns within this one client's case.

### CONCLUSION

This case demonstrates how the multidimensionality of yoga therapy allows for one complex client's

variety of needs to be addressed in a holistic and comprehensive way.

## THE PAWS THAT REFRESH US: CAN ANIMAL-ASSISTED THERAPY (AAT) HAVE AN EFFECT ON EXAM PERFORMANCE IN MEDICAL STUDENTS?

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### INTRODUCTION

Animal-assisted therapy (AAT), also referred to as Pet Therapy, is any practice that involves animals as a part of a therapeutic process with the goal of positively affecting human health, by utilizing animals as a therapeutic intervention. The goals of this research project are to determine if a brief time interacting with therapy dogs can have an effect on the stress and anxiety of first and second year medical students prior to taking exams.

### METHODS

140 First year medical students aged 22.5 +/- 1.5; Response rate with AAT of 34%; Response rate without AAT of 19%, Overall Response rate of 53%.

141 Second year medical students; Age-24 +/- 5; Response rate with AAT of 26%; Response rate without AAT of 18%; Overall Response rate of 45%. All participation was voluntary and blinded. Surveys were created through Redcap and administered electronically within twelve hours of exam completion. First year medical students: Two exams with AAT/survey #1; Two exams without AAT/Survey #2 Second year medical students: Four exams without AAT/Survey #2; Four exams with AAT/Survey #1.

### RESULTS

There was no significant difference between the responses of first and second year medical students. All medical students showed an improvement

in their pre-exam stress and anxiety levels after interaction with the therapy dogs: Medical 1=60% improvement and Medical 2=49% improvement. There was a remarkable similarity between the responses of the first and second year medical students in describing their emotions prior to an exam without having an AAT Interaction. The most prevalent emotion expressed by both groups of students pre-exam without an AAT interaction was varying degrees of fear. The second most noted emotion was sadness followed by anger and guilt or shame. A small minority of students in both groups expressed any levels of happiness or confidence.

### CONCLUSION

The use of animal-assisted therapy as a means of reducing medical students' symptoms of exam related stress and anxiety appears to provide positive results. AAT is a cost-effective, simple means of improving medical students' emotional and mental state prior to an exam while helping them to relax a little. This was found to be the case after only a brief interaction with therapy dogs prior to the exam (an average of 10 minutes).

## TAO CALLIGRAPHY TRACING MEDITATION IN HEALTH RECOVERY

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### INTRODUCTION

The authors studied the effect of a unique style of meditation where mindfulness (heightened awareness) is achieved by a combination of movement and focus on Chinese Tao Calligraphy. This unique practice can be best understood as a combination of meditation and Qi Gong (energy practice). Therefore, the healing effect on the mind and body can be quite profound.

### PARTICIPANTS

11 practitioners, 4 male and 7 female, among whom diagnoses included metabolic syndrome (1),

infectious disease (1), cardiovascular disease (2) mental health issues (1), neurological illness (1), musculoskeletal issues (2), gynecological issues (1), and malignancies (2).

### METHODS

11 practitioners were followed for 3 years as a subset within a larger study of 55 spiritual practitioners. The 11 participants practiced daily meditation of tracing Tao Calligraphy with their fingers.

### RESULTS

Retrospective analysis of data from these 11 subjects showed that most exhibited improvement in general wellbeing, an increase in optimism and energy level, as well as improvement of their symptoms. 6 subjects (54.5%) reported marked improvement or complete recovery; 4 (27.3%) moderate improvement, and 2 (18.2%) minimal improvement. There was no worsening or death.

### CONCLUSION

The results of this study confirmed the potential efficacy of combining Spiritual Healing, Tao Calligraphy Tracing Meditation and conventional medical treatment.

Meditation with Tracing Tao Calligraphy was easy to learn, well tolerated and had no complications.

## DISTINCT *FOMITOPSIS CAJANDERI* EXTRACTS HAVE DIFFERENTIAL MODULATORY ACTIONS ON CANCER CELL CYTOTOXICITY AND TNF CYTOKINE SECRETION BY HUMAN U937 MONOCYTES

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### INTRODUCTION

This study determined the cytotoxic effects of a hot ethanol extract (HEFC) and hot aqueous extract (HAFC) of *Fomitopsis cajanderi* on two human cancer cell lines, MCF7 breast cancer cells,

and U937 histiocytic lymphoma cells. Effects of HAFC on TNF production by PMA-differentiated, LPS-stimulated U937 macrophages were determined, and glycosyl content and linkage analysis assessed.

### METHODS

HEFC was made using a cold thumb condenser and HAFC was decocted for two hours at 100°C. Both extracts were concentrated to a 1:5 ratio and tested on cancer cell lines for tumoricidal actions by the XTT cytotoxicity assay. Modulatory effects of HAFC on TNF secretion by U937 cells were assessed by TNF ELISA. HAFC was also assessed by the Complex Carbohydrate Research Center for glycosyl composition and linkages, and 1-D NMR analysis performed.

### RESULTS

HEFC was dose-dependently cytotoxic to MCF7 and undifferentiated U937 cells, with U937 cells significantly more susceptible than MCF7 cells. HEFC, but not HAFC, was strongly cytotoxic to LPS-stimulated U937 cells. HAFC was not cytotoxic to MCF7 cells, but at the two highest concentrations, was cytotoxic to undifferentiated U937 cells and inhibited TNF secretion in LPS-stimulated U937 cells.

### CONCLUSION

Differential tumoricidal effects of two *Fomitopsis cajanderi* extracts were observed. HEFC was strongly cytotoxic to human cancer cells, whereas HAFC was only slightly cytotoxic to U937 cells. Although HAFC contained beta glucans, TNF-enhancing effects were not observed. Instead, HAFC dose-dependently inhibited U937 TNF production. These results warrant further research of *F. cajanderi* extracts as potential adjunctive anti-cancer and anti-inflammatory agents.

**Funding:** This study was made possible by a Faculty Student Research grant from the Bastyr University Research Institute.

## AN EMPIRICAL ANALYSIS OF AN AYURVEDIC HOME CLEANSE'S INFLUENCE ON PHYSICAL, PSYCHOLOGICAL, AND INTERPERSONAL WELL-BEING

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### INTRODUCTION

For over 5000 years, those steeped in Ayurvedic medicine have underscored and personally observed the widespread benefits that result from seasonal cleansing. This practice involves giving the digestive system a break by eating three meals a day without snacking, with the three meals consisting of mung beans, rice, and steamed vegetables cooked in traditional Ayurvedic spices. We took a western scientific approach to study the physical, psychological, and interpersonal consequences of undergoing such a cleanse.

### PARTICIPANTS

Participants were recruited with the assistance of The Ayurvedic Center of Vermont. All participants expressed an interest in Ayurveda, specifically in seasonal cleansing, and were compensated for their time.

### METHODS

Data were collected at two time-points: once before undergoing the cleanse and again 2-4 weeks after

the cleanse. A comparison group of participants (also people interested in seasonal cleansing) did not cleanse but did provide data on two occasions separated by 4-6 weeks.

### RESULTS

Data show significant drops in physical pain, depression, and anxiety after the cleanse, as well as significant increases in self-compassion and well-being.

### CONCLUSION

Given that improvements in pain, depression, anxiety, and well-being are associated with relationship satisfaction, this Ayurvedic tradition may have beneficial consequences for both the self and others.

## EARTHING (GROUNDING): NATURE'S ORIGINAL ANTI- INFLAMMATORY. WHY CONNECTION TO THE EARTH IS IMPORTANT TO OUR HEALTH

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### INTRODUCTION

Earthing (grounding) refers to major health/healing benefits derived from direct human physical connection with the Earth's surface and its unlimited supply of free electrons. This unseen reservoir

of electrons, a result of 3 billion lightning strikes yearly and other atmospheric phenomena, gives our planet a slightly negative electric charge. Groundbreaking research over the last 20 years has revealed that this untapped natural resource stabilizes the physiology, reduces inflammation and chronic pain, and generates greater well-being. Past societies walked barefoot and used footwear and bedding of conductive animal skins, and were thus connected to the Earth's "energy" 24/7.

In recent times, we have become largely disconnected: we no longer sleep on the ground and we wear synthetic soled shoes. This disconnection means lost access to the Earth's anti-inflammatory/anti-antioxidant electrons, which research suggests may provide a natural and inexpensive option to help combat today's global epidemic of chronic inflammatory and pain-related diseases. Note grounding can be easily achieved by going barefoot or using convenient grounding mats and/or patches indoors while sitting or sleeping.

The studies presented in this poster provide evidence that grounding reduces common electric field (EMF) induced voltage on the body; improves vagal tone and heart rate variability; thins the blood and enhances circulation; normalizes cortisol; improves sleep; reduces pain; promotes accelerated wound healing; and lessens inflammation. Anecdotally, grounding has been reported to benefit various chronic inflammatory diseases, such as rheumatoid arthritis, MS, and lupus, as well as pain in general. This presentation aims to encourage more randomized and observational studies. Given that the potential for grounding has been well demonstrated and that studies can be easily, inexpensively, conveniently and safely conducted in the clinical and home setting, it seems imperative that we explore the potential benefits of re-introducing this evolutionary practice within our medical paradigm.