

POSTER ABSTRACTS

Parts Making A Whole: Components Of A Clinical Herbalism Education

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Clinical herbalism as practiced by contemporary medical herbalists is a diverse, adaptable, and changing field. Fundamentally, the training has altered little in centuries and stays true to its roots with components involving people, plants, and their interactions. From a content perspective, the clinical education of herbalists has adapted along with clinical medicine itself. This poster will examine the many components of training necessary for a contemporary clinical herbalist while staying true to the roots of herbal medicine as practiced for centuries.

Herbal Medicine & the Endothelial Glycocalyx: A Report On Research By Peters *et al.* (2012)

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Preliminary evidence suggests that hawthorn extract may support cardiovascular health via its effects on the endothelial glycocalyx, a negatively-charged mesh lining our blood vessels. This poster will introduce viewers to the glycocalyx and present the findings of Peters *et al* (2012).

Reference:

Peters, W., Drueppel, V., Kusche-Vihrog, K., Schubert, C., & Oberleithner, H. (2012). Nanomechanics and sodium permeability of endothelial surface layer modulated by hawthorn extract WS 1442. *PLoS One*, 7(1), e29972. doi:10.1371/journal.pone.0029972

The Healing Properties of Baltic Amber

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Baltic amber is a fossilized resin originally produced by coniferous trees that grew around the Baltic rim 40 to 200 million years ago. A large number of conifers belonging to different genera are represented in the amber-flora, all given the collective name *Pinus succinifera*. These include Pines as well as Cedrus (cedar from the Atlas Mountains) and *Larix* spp. (larch) all of which grew in Northern Europe.

Warming, stimulating, aromatic, bitter and beautiful, Baltic amber is both a potent medicine and an energetically protective substance and has been revered as such for millennia.

Baltic amber has a long and illustrious history of medicinal and magical/spiritual use throughout China, India, the Middle East and all of Europe, from the northern Boreal forests to the Mediterranean Sea.

Adaptogens are exceedingly effective tonics, have a broad influence on the entire body, enhance immunity and can be safely used long term. Many of these substances have a history of use that extends for thousands of years and a huge body of empirical evidence has been accumulated regarding

their therapeutic application. According to modern day Russian, Polish and German researchers, Baltic amber is such a substance.

I will share my personal experience, that of a sister practitioner currently using Baltic Amber to treat Lyme, as well as the experience of several of my own clients regarding the vitality boosting, anti microbial and pain easing properties of this ancient fossilized resin, some of the ancient history and compelling healing traditions surrounding it and traditional directions for use.

Salve, Gel, or Cream. Oh My!

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You have your client. You know that you want to treat them topically and you know what herbs you want to use. Now, what is the best way to make that topical product so that you extract the components you want from the herbs and ensure that it gets to where it needs to go in the body?

Some herbs extract best in either oil, water, or alcohol. These three solvents have different polarities and as such will affect herbal constituents differently. Generally carbohydrates, amino acids, and proteins extract better in water and sometimes in alcohol solutions, depending on pH. Lipids extract best in oils, as would be expected, as they are both fats. Phenolic compounds, terpenoids, and alkaloids all vary in their best extraction methods by pH and structure (Ganora, 2009).

You will also need to consider the location of action for your product. Salves, gels, and creams all absorb differently through the skin and at different rates. Intercellular absorption is very common for oil and fat soluble molecules as the intercellular space between cells is oil based. More water soluble compounds absorb directly into the cells of the dermis and start to directly affect cellular physiology. We look deeper at the molecular components that are extracted best in each type of solvent and how you can combine your extracts efficiently to lead to the best absorption and healing potential of the herbs you have selected.

Arnica: Friend or Foe

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Today when we all think about using arnica, *Arnica montana*, we usually think about using homeopathic treatments. These treatments have been found effective in reducing swelling, for example, after cruciate ligament reconstruction (Brinkhaus, Wilkens, Ludtke, Hunger, Witt, & Willich, 2006). Arnica, however, was traditionally used at much higher doses in more forms. Why are we worried to use it now?

Scudder used arnica as a valuable stimulant and for physical trauma bruises (Scudder J. M., 1884, p. 77, p 222). It was used externally for bruises, sprains, and internal physical damage (Davis A. H., 1880, p. 298) and it can be applied for use in rheumatism, joints and pains of the feet (Wood, 1896). Felter said arnica is helpful when circulation is weak. It relieves pain and muscular soreness from over exertion. It is also used in rheumatism and it increases circulation (1895, pp. 208-210). When it was used for local inflammation, a tincture or fluid extract with doses from ten to sixty drops, was applied

(Warren, 1859; Gunn, 1859). It is recommended to also treat sprains and strains by applying a gel twice a day and to use during recovery from surgery (Gaby, 2006, p. 54).

This poster will delve more deeply into the traditional uses of arnica, both topically and internally, as well as looking into some of the dangers and worries about why we no longer use this herb as freely as it was used by Scudder and Felter's contemporaries.

Fifteen Medicinal Weeds of Philadelphia

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As a city dweller and herbalist, I am constantly fascinated by the strength and abundance of plants that have the audacity to pop up in the sidewalk cracks, trampled parks, and forgotten corners of our city. A growing movement of contemporary herbalists and foragers have focused on this concept of a city ecology, echoing that the most abundant plants are the most powerful. Not only are many urban plants important medicinals, but they draw in the millions of people living in cities across our country to the true availability and radical simplicity of herbal medicine. As our biophilic tendencies pull us toward other life forms, these plants give us city dwellers hope and remind us that we are not alone in our busy lives.

Learning and interacting with the plants in our city neighborhoods contributes to community building on many levels. When one becomes involved in the vibrant community garden initiatives in Philadelphia, one can see barriers break down: neighbors getting to know each other while sharing tips about how to grow the juiciest tomato, when to eat dandelion greens, or how to heal a bee sting in the garden. These simple conversations build strong, vibrant and durable communities across the city. The medicinal weeds poster reminds us to look down, learn about and from these plants at our feet, use them everyday for vibrant wellbeing, and celebrate these relationships.

Ten Medicinal Trees of Philadelphia

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A sequel to the "Fifteen Medicinal Weeds of Philadelphia" poster, this one centers on the towering trees that enliven in the city, both growing wild and planted ornamentally. The poster encourages viewers to look up toward the sky at those tall beings which break through the concrete, clean the city air, and generously provide shade, food and medicine. Just a sampling of the many useful trees and shrubs to be found in Philadelphia and the Delaware Valley, the poster contributes to a place-based, ecological view of cityscapes. As large, imposing species that tend to shape the soil, habitats and ecologies around them, trees provide a fascinating point of reference for the study of landscape – be that of woodlands or city parks. Learning the ecological and social histories of our city, one can begin to see the strong natives, opportunistic invasives, and unique ornamental hybrids interacting within a landscape largely created by humans, yet still thriving with plant and wildlife diversity. This ecology is unique to our city in our time, and knowing the uses and histories of these powerful old trees can provide insight into the Delaware Valley bioregion and our unique ecological identity within it. As an artistic articulation of these amazing creatures, the poster draws the viewer into seeing and knowing the trees around them, with profound resonance for building upon the inherent strength of our communities.

Herbal Root Zine as a Medium for Teaching Our Youth, The Herbalists of Tomorrow

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Perhaps Rosemary Gladstar summarizes it best: “We must take our children into the wild, introduce them to the plants, and teach them of their connection to the earth. In instilling in our children a respect for plant medicine, we not only care for their tender bodies but help pass along the seeds of a tradition that is as old as human life itself.”

The purpose of this poster, using Herbal Roots zine as an example, will show how teaching kids about herbs can be done in a way that is fun, challenging and will stay with them, building a lifetime of herbal knowledge, focusing on a target age of 8 - 14 year olds, though kids of all ages will benefit as well.

Examples will be presented, demonstrating techniques, exercises, lessons and activities which focus on commonly used herbs in today’s clinical setting. These examples will show how kids gain a lifetime love of herbs, a respect for the living plants that surround them, be empowered to take responsibility for their own health and as a result, will continue to use and explore herbal medicine as they mature into adults, as well as a continued relationship with the plants.

By instilling this love of plants in our youth, through using Herbal Roots zine, we can not only help to cultivate the next generation of herbalists but also help to keep the tradition of plant medicine alive as well as a respect for the plants that grow all around us.

Herbalism in Context: Working with Foods & Beverages on a Low Budget

Leslie M Alexander & Leslie Williams

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As herbalists in clinical practice in rural areas, with many low-income clients, we work with a variety of health concerns, not the least of which is access to limited resources. By resources, we understand that these may include time, energy and cultural constraints. Additionally, personal finances often prove to be an impediment to health care. We realize that in order to build trust with our clients, as well as to improve compliance with our protocols, we need to begin our work with a person amidst familiar day-to-day settings. If we create a protocol focused on expensive or unavailable exotic herbs, supplements and foods, and time consuming preparations we almost assure non-compliance and do a disservice to our clients. Similarly, if we ground a protocol in the familiar, the ordinary and the not-too-expensive, we increase the probability of a client's initial comfort and compliance. One means of helping to develop compliance is through the use of common foods and beverages.

We present a brief visual survey of 10 commonly available and fairly inexpensive items that can serve as a first step in a holistic protocol. These can be found in local, small-town grocery stores, K-Mart and/or Rite-Aid. The context is meaningful to the client who recognizes many of our choices and the herbalist who too will recognize many of the actions associated with our choices.

Uterine Contractility States and Herbal Therapeutics

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This paper introduces a typology of uterine tone and contractility patterns and relates these uterine contractility states to a nuanced use of herbal therapeutics for women's reproductive health. This typology contributes a novel theoretical framework for evaluating uterine states based on an integration of the traditional six tissue states model with modern research findings that have demonstrated the importance of directionality of uterine contractions to a variety of pathological conditions. Specifically, this model links the tissue state dimension of uterine tonicity (hypertonic vs. hypotonic) with the physiological dimension of contraction directionality (appropriate directionality vs. myometrial dyssynergia) to generate six combinations which comprise the theorized six uterine contractility states: 1) normal tone with appropriate directionality, 2) normal tone with myometrial dyssynergia, 3) hypotonic with appropriate directionality, 4) hypotonic with myometrial dyssynergia, 5) hypertonic with appropriate directionality, and 6) hypertonic with myometrial dyssynergia. These states may be associated with a variety of pathological conditions that exemplify features of contractility specific to each state. Conditions explored in relation to this model include: dysmenorrhea, endometriosis, retrograde menstruation, unexplained infertility, ectopic pregnancy, threatened miscarriage, preterm labor, postdates pregnancy, labor dystocia, postpartum hemorrhage, and uterine prolapse. The paper also reviews a few key uterine herbs and considers how they may fit into this new framework: *Rubus idaeus*, *Viburnum* spp., and *Artemisia vulgaris*. While this model primarily concurs with traditional use of herbal therapeutics for uterine neuromuscular modulation, it suggests that the amphoteric nature of many female reproductive herbs offers promise for modulation of dyssynergic uterine activity.

Transformative Learning: How We Use Research in Herbal Coursework

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Education, as a change agent, allows us to understand "... why our assumptions have come to constrain the way we perceive and understand our world." (Mezirow)

To break through the barrier of our own assumptions, whether in clinic or research or medicine making, we use the process of unlearning to engage us in asking questions about subjects of which we are passionate. This process opens us to greater possibilities and involves a return to the original question in an iterative fashion to refine the discovery practice.

For this inquiry-based learning to truly catalyze change, unlearning must increase our ability to improvise, to contribute unique and innovative solutions. This poster will discuss the pedagogical underpinning for this educational approach, as well as example of how it is applied in our herbal program.

***Scutellaria baicalensis* (huang qin), a known anti inflammatory agent that also facilitates psychological integration.**

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Native to the shores of Lake Baikal in Siberia and Mongolia, this herbaceous perennial from the Mint family with its deep purple blossoms and rich green foliage, is a stunning addition to any landscape, yet a powerful medicine.

Traditionally, its yellow root has been used in Chinese Medicine for its anti inflammatory, antibacterial, anti hypertension, anti allergy and sedative properties.

In recent research, *Scutellaria baicalensis*'s major flavonoids, baicalin, baicalein and wogonin, demonstrated cytotoxic activity to various human tumor cell lines in vitro and suppression of tumor growth *in vivo*.

My interest in Baical grew overtime as I searched for plants that had powerful antiinflammatory qualities. I incorporate Baical root and flower into tinctures and creams. These preparations have been useful for gastritis, irritable bowel syndrome, colds, flu, allergies and panic attacks.

While working with Baical. I have observed that it enhances the qualities of other herbs in a formula, and brings them to work in unison towards a designated goal.

Perhaps Baical's most precious gift to us comes by way of its flowers. Though it may sometimes seem that the small steps we take to lift us out of our emotional demons are very meager, Baical flower essence somehow acts to give us the feeling that none of our efforts towards psychological wholeness are ever wasted; that we are always moving ahead, ahead, ahead ~ ~ ~ ~

To give us a taste of this "yellow magic", on display are tincture, flower essence, oil preparation and a live root!

Presence of the Indole Alkaloid Reserpine in *Bignonia capreolata*

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Bignonia capreolata is a perennial semi-evergreen vine from the Southeast United States. It is a member of Bignoniaceae, a plant family predominately found in tropical and subtropical regions. It is known by the common name Cross Vine. This plant was used as a medicine by the native North Americans. North Alabama herbalist Tommie Bass learned of this herb from local natives and used *B. capreolata* as a tonic for fatigued farm animals. This herb has fallen out of most herbalists material medica's except for the students of Mr. Bass. A preliminary screen of *B. capreolata* suggested the presence of the indole alkaloid reserpine. Reserpine is known to be a constituent of *Rauvolfia serpentine* and other Apocynaceae members. The presence of reserpine in this plant, if verified, would be significant because it has not been shown in this genus to date and in the context of whole botanical medicines may extend the therapeutic potential of this plant. This analysis was undertaken to 1) verify the presence reserpine using LC-MS referenced with an analytical standard of reserpine; and 2) if verified, quantitate the level of reserpine in *B. capreolata* leaf. LC-MS analysis has confirmed the presence of reserpine in *B. capreolata*, which makes this the only known plant outside of Apocynaceae to contain this indole alkaloid.