A reflection on cupping therapy and historical medical dominance

Abstract
Cupping therapy, a traditional Chinese medicine modality, has the power to transform pain management and to improve quality of life for people. Yet, this therapy remains largely underutilized due to scrutiny from medical research communities and the history of medical dominance (1540-present). This article outlines cupping history and compares it to the development of modern of biomedical treatments. Through three primary texts, Traditional Chinese Medicine Cupping Therapy written by Ilkay Zihni Chirali, Trick or Treatment: The Undeniable Facts about Alternative Medicine by Simon Singh & Edzard Ernest, and Medical History (1999) written by Jacelyn Duffin, the practice is described and defended. In this article, the researcher reframes the concepts of the placebo, evidence, and medical dominance. Additional information about cupping therapy and diagnostics is discussed.

Introduction
Cupping therapy is a component of traditional medicine, now considered “alternative medicine” by the dominant system that has been practiced for centuries in cultures and countries around the world. In North Africa, cupping therapy was first documented on Eber’s papyrus (1550 BCE) in ancient Egypt, and a cup is the Egyptian glyph to reference a physician.1 In Asia, during the Jin dynasty, Ge Hong (281-341 CE) mentions the use of animal horns as a means of draining fluids from the body.1 Ancient Egyptian, Chinese, Unani, Korean, Tibetan, and Latin American cultures around the globe have diverse methods for using cupping therapy. Cupping techniques and styles resemble their geographic location and are inspired by local materials. Cups are placed on the skin with the use of heat to create a vacuum: as such, diverse materials have been used: animal horns, bamboo, ceramic, glass, metal, and plastic, all of which serve the purpose of suction. For an explanation on diagnosis see appendix A. In Arabic and Islamic countries, cups (Hejama) are discussed in the Al-Qanun Fi’l-Tibb, Cannon of Medicine (1025CE), to treat excess and deficiency conditions, tightness of the hypochondris, and menstrual conditions.1

Evidence-based
In Trick or Treatment, Ernst and Singh2 claimed that the cupping therapy lacks “evidence.” The Oxford dictionary states that evidence is the “available body of information” or that which “indicates whether a belief or proposition is true or valid” (Oxford, 2018). Unfortunately, evidence is often situated in epistemology and conditions that assume truth with a lack of cross-cultural competence, instead of reliance on evidence is often situated in epistemology and conditions that assume truth with a lack of cross-cultural competence, instead of reliance on evidence. The Oxford dictionary states that evidence is often situated in epistemological framework. Evidence is most trustworthy when evaluated through various reference points,3 over time, and across cultures. For instance, in qualitative research, triangulation is used to limit bias. Triangulation allows the researcher to consult multiple sources, such as archival records, individual narratives, and data bases.3 Multiple vantage points are used to offer rich, historical, descriptive, in-depth, pattern-oriented, and culturally relevant data. In quantitative frameworks, data is considered reliable when it’s validated through objective, sterile conditions that create replicable data.3

‘Evidence-based’ has become a common term for insurance companies, as well as for providers. Evidence-based means that if a researcher can’t demonstrate efficacy, the medical insurance companies will not compensate the provider. It also means that medical doctors and allied professionals can recommend only therapies that have earned the legitimacy of being evidence-based. This becomes dangerous when medical scientists and scientific journals support inaccurate information related to alternative practices. Moreover, if cupping therapy and other practices are not considered evidence-based, then medical doctors (not clear, here to end of sentence) are not educated in effective a low cost natural therapies. In this way, evidence is used to paint an ill and inaccurate portrait of traditional cupping therapy.

The placebo
The term “placebo” is often used to degrade the immeasurable attributes of traditional medicine and living organisms. The placebo is...
a “powerful influence of meaningful symbols in the healing ritual that goes beyond a merely positivistic approach”.

A positivist framework is the backdrop to the scientific method and validates knowledge through rationalism, experimental designs, and objectivity. In a positivist model of confirming or disproving a hypothesis, it appears that all variables in the natural world and its spiritual phenomenon can be accounted for and controlled. If a research design demonstrates a placebo effect, it is considered defective and the term placebo is historically associated with the word hypocrisy. Trick or Treatment authors explain human conditioning as one of several mechanisms for how the placebo effect works:

So, if the placebo effect in humans is also a conditioned response, then the explanation for effectiveness would be that a patient simply associates getting better with, for example, seeing a doctor or taking a pill. After all, ever since childhood a patient will have visited a doctor, received a pill and felt better. Hence, if a doctor prescribes a pill containing no active ingredient, a so-called sugar pill, then the patient might still experience a benefit due to conditioning.

Conditioning studies have been performed primarily on rats and guinea pigs. Yet, the authors fail to connect that humans can’t be reduced to rats, or vice versa. Moreover, placebo effects in medical research are often variables that include warm engagement, eye contact, a genuine interest, legitimization of the client’s emotions, and education. Non-specific treatment variables are considered to be major contributors to the placebo effect. This is no surprise, given that altering personal beliefs and examining social conditioning factors are tools employed by evidenced based mental health treatment models. Moreover, non-specific variables are key attributes that show a correlation in the reduction in patient pain perceptions and promote a humanistic approach to client care. A placebo often is a sign of the body undergoing self-healing.

Placebos are portrayed in a negative light in medical research, and as such, many alternative providers have sought to credential, justify, and produce “evidence” by conducting experimental designs. The book The Undeniable Facts about Alternative Medicine was published in 2008 inspired several meta-analyses looking at bodies of research withincupping. Cao and Luo searched 135 randomized controlled cupping studies published from 1992-2010 to identify commonly treated diseases, and found successful patient recovery from conditions such as Bell’s palsy, disc herniation, and cervical spondylosis as well as respiratory aid from conditions such as chronic cough, dyspnea, and skin conditions such as acne, cold sores, and blisters. Cupping techniques ranged from wet cupping to dry, running, and stationary cupping. Cao and Luo’s meta-analysis demonstrated that cupping therapy when used with parallel Chinese medical treatments such as herbs and acupuncture performed significantly superior to cupping alone. Adverse effects were not found in any of the studies.

Later research wherein Edzard Ernst was a participating researcher with Kim et al.7 their team found cupping therapy as successful in pain reduction. The meta-analysis conducted by Kim et al. evaluated randomized controlled studies to assess the effectiveness of dry cupping in pain reduction. Authors (2011) found seven clinical trials that demonstrated a reduction in low back pain compared to control and placebo groups. Despite evidence published prior to 2008, Ernst and Singh claimed, “The only controlled trial of cupping did not demonstrate the effectiveness of this therapy in reducing pain” (p. 307). This is detrimental because it reaffirms the prejudice of traditional medicine as lacking evidence and that it is a mere placebo.

**Medical dominance through dissection**

Anatomical dissections found in western medical societies actively worked to discredit the ‘alternative medicine’ of non-white cultures who did not rely on human anatomy to make medical diagnosis. It was believed my medical scientists in the 1800’s and early 1900’s, if you did not participate in cutting a body open then you could not understand human physiology. Chinese Medicine relies on examination through palpitation, observation, sight, smell, and sound. Thus, for cupping therapy which has a longstanding history in a Daoist framework the individual is considered an extension of the universe and as such is impacted by natural phenomenon, such as the seasons and climate, as well as by internal states, such as emotional stress.

<table>
<thead>
<tr>
<th>Influencing Pathology</th>
<th>Principle</th>
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<tbody>
<tr>
<td>External disease Climate</td>
<td>By damp, cold, heat, wind, summer heat, and dryness</td>
</tr>
<tr>
<td>Internal disease Emotions</td>
<td>By anger, fear, anxiety, fright, grief, pensiveness, and joy. Effect the primary organs</td>
</tr>
<tr>
<td>Irregularities-disease Trauma</td>
<td>By unbalanced diet or damage done by parasites, or physical trauma through physical impact</td>
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Chinese medicinal researchers were not as concerned with disease physiology but observable principles of balance examined in living bodies. There is a quite respect and humility toward the human body in Chinese Culture, as it is a reflection for the cosmos, in this way the human body is sacred and dissection was medically viewed as unnecessary. In contrast, Western medical research and education have been infatuated with understanding disease through dissection.

Human dissection in western society is interwoven with the omission of cupping therapy as part of standard medical curriculum despite it’s popularity in European historic societies. In 1540, Henry VIII of England approved the Charter for the Company of Barber Surgeons. This charter led to the fragmentation of once unified healthcare options that were often provided by women who offered ‘alternative medicine’. In addition, the charter promoted the development of medical specialities and set the stage for scientific dissections in subsequent centuries. Some key European historical discoveries included anatomical dissections of Andreas Vesalius, published in (1543), that challenged European fallacies regarding the relationship between structure and function of the human physiology. William Harvey wrote a book, *On the Motion of the Heart* (1628) in which he articulated experiments on the circulation of the blood. Despite medical advancements, elite aristocrats would be the primary beneficiaries of these insights, and medical advancements pushed ‘alternative’ or folk medicine practice of cupping treatment to the periphery of medical treatment options.

To understand why cupping therapy is deemed ‘in-effective’ it is important to understand the development of evidence in western medical institutions. In 1882, the first French professorship for medicine went to Jean Cruveilhier in 1835. The United States followed. By 1848, 25 of the 40 medical schools in the United States offered instruction in dissection. Problems arose due to a limited supply of bodies and legal mechanism to obtain anatomical material. Dissection had become acceptable to academics and medical students. As a result, medical schools were located near graveyards:

The new occupation of ‘resurrection man’ emerged. Fabled in song and story, it satisfied the growing market for fresh bodies with the newly buried corpse of private citizens. The inevitable happened,
murder for the sell of corpses. Unknown numbers of disadvantaged citizens may have been killed to this end.4

Murdering the living for research highlights the power that medical dissection and physiology had over all other types of medical discoveries.6 Moreover, this power of dissection was supported by notion of fragmentation. Rene Descartes (1596-1650), an influential philosopher, suggested that the mind and body were separate substances, that the mind was distinct from matter. Descartes’ separation of mind and body created a justification to dissect and dehumanize corpses at an astounding rate. Similarly, Christian religious figures promoted the notion of the body bearing original sin and promoted a separation of body and spirit (Stargrove, personal communication 2018, October 2nd). This fragmentation had serious consequences for the lives lost at the hands of hungry medical doctors. Descartes’ dualism contributed to a medical system that maintained a philosophy of fragmentation

Singh and Ernest7 suggested that the philosophical framework of positivism was superior to the holistic framework of Daoist medicine. Holism is the philosophy that systems and their properties must be viewed together, not just as a collection of parts. The ancient Chinese believed in a system of the Dao that asserted that the world is holistic. Taos promoted that no single being or human could exist unless it is seen in relation to nature. Seasonal and climate observations yielded more data than did anatomical dissections8 and in part contributes to the erasure of cupping therapy as a legitimate medical treatment. Yet, Ernst and Singh7 critiqued the Daoist framework: "Chinese medicine emerged from a society that rejected human dissection. Unable to look inside the body, the Chinese developed largely imaginary models of human anatomy that were based on the world around them (2008, p. 52). Singh & Ernest7 claimed that Chinese medicine was flawed or “imaginary.” The very gifts of respect for human life, cosmology, and a systemic view of diseases make Chinese medicine holistic.9 These same values found in Chinese Medicine are used in many cupping therapy frameworks for traditional medical providers.11

Conclusion

Cupping therapy is a component of traditional medicine that has been expressed in many ancient cultures including Egyptian, Arabic, Jewish, Latin American and Asian societies.1 Despite it’s longstanding traditions for muscular pain, common cold relief and circulatory benefits, it is portrayed as the ‘alternative’ treatment option with no evidence. Over many decades, Cao & Luo6 and Kim et al.7 meta-

analysis studies demonstrated the effectiveness of dry cupping in pain reduction. Still, unreliable and poorly validated claims are reviewed in a positive light.2 The term placebo is used to discredit attributes of traditional and natural medicine. Historically, medical boards have discredited folk healthcare because it did not historically employ human dissection.8 Yet, ill-informed scientist promote inaccurate information that discredits and minimizes the benefits of cupping therapy and other non-western medical frameworks.

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Conflicts of interest

Author declares there are no conflicts of interest.

References