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MAYWAY Scholarship Program

August 2014

Scholarship Recipient

An Argument for Delaying the Availability of Over-the-Counter Chinese Herbal Formulas in the United States

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Mayway Scholarship Essay

In contemporary American culture, Chinese herbal formulas (defined in this paper as standardized-quality herbal formulas following the Traditional Chinese Medicine paradigm) have their highest potential for patients in the U.S. when prescribed by a licensed herbalist. The traditional use of Chinese herbal formulas is based on a set of shared assumptions that define methods for assessing safety. Those assumptions are not part of the popular model of medicine in the United States. Thus, patients still rely on the knowledge of informed professionals to safely navigate the pharmacopoeia of Chinese medicine. However, as the cultural environment evolves in the U.S., the use of over-the-counter Chinese herbal formulas may become viable. In the concluding sections of this paper, the author suggests possible social benchmarks that could be used to measure progress towards such an environment.

While Chinese medicine is by its nature "holistic," the State endorsed medical theory of biomedicine traditionally tends toward a highly selective lens (Verpoorte, Choi, and Kim, 2005). American biomedicine, like American politics, is founded on the works of 18th century thinkers (Curti, 1937; Ward, 2010). As an example, John Locke directly contributed to the modern scientific obsession of isolating variables by inventing an iconic technology, the microscope, which allowed the human eye to see increasingly smaller orders of magnitude. Any doubt concerning Locke's role in shaping the American psyche simply requires a look to his writings on the economic theories of classical liberalism; he is credited as being the inspiration for the legendary words of America's history, "life, liberty, and the pursuit of happiness," (U.S. Declaration of Independence, 1776) although his exact words were "life, liberty, and estate" (Locke, 1988, p.41). Despite several revolutionary shifts in paradigms used to discuss medicine, the work of forefathers, such as Locke, remains a cornerstone of the cultural schema of contemporary America consciousness (Chappell, 1999).

Consequently, while Chinese medicine herbalists use mutually held assumptions to produce formulas safe for over-the-counter consumption (Patwardhan et al., 2005), the cultural context in the United States encourages researchers to analyze formulas in terms of valuable constituents and the market competition to "improve" formulas (Abourashed et al., 2003). A useful case study of how these two societal characteristics can pervert a traditionally safe formula is the example of the Chinese herb Ma Huang.

Case Study

Whereas Ma Huang has enjoyed a long history of use as an ingredient in many common Chinese herbal formulas, the plant's therapeutic value was not widely recognized by biomedicine until 1924 (Lee, 2011). In the very process of being introduced to the medical community of the United States, the herb was already being recast to fit the paradigm of the authors and readers of the original article by Chen and Schmidt (1924), The action of ephedrine the active principle of the Chinese drug Ma Huang. The title alone reflects the attempt to assimilate the herb into the American pharmacology model by isolating a single "active principle," as the subject of interest. Thus, the herb was co-opted from its role as a synergistic component in a number of formulas to simply a vessel hosting a single medical agent, ephedrine. Extracted and synthesized, ephedrine was administered to asthma patients via inhalers until the 1950's when, more effective replacement pharmaceuticals were adopted. From the perspective of the biomedical community, Ma Huang's greatest contribution to medicine was its role in elucidating distinct receptors as future drug targets (Lee, 2011). "From mainstream medicine, ephedrine was moved to the twilight zone of street drugs" (Lee, 2011, p. 78). Thus, over the first thirty years of its presence in the American public's eye, Ma Huang was stripped of thousands of years of history and deconstructed from "formula" ingredient to "active"

ingredient. It was used to further narrow the lens of American medicine and finally, became associated with illicit drugs.

In the 1990's, fully devoid of its greater historical context and reshaped to fit the domestic medical framework, Ma Huang resurfaced as a commercial product with the label of "dietary supplement" (Specter, 2004; "Evidence Report," n.d.). In this second act, the spotlight is on the repercussions of unchecked market motives for herbal formula safety in the U.S. Sales of dietary supplements containing ephedrine alkaloids grew by 65% between the years 1995 and 2000 ("Evidence Report,"n.d.). Ma Huang's classical Chinese use in medical formulas to promote the movement of qi, was not what the market demanded so much as a burst to the adrenals to achieve the body image and professional performance in vogue at the time. Weight loss and stamina were deliverables that companies competed to deliver through products containing ma huang (Abourashed et al., 2003; Gurley, Gardner, and Hubbard, 2000; Pillitteri et al., 2008). The archetype of this societal-drug relationship was written into American history in 2003 when a pro-baseball player, driven by exorbitant market rewards, used one such dietary supplement to push his body's limits to the edge, collapsed on the field and died (Lee 2011; Specter, 2004). A far cry from its original labeling as safe in the classical Chinese texts (Shou-Zhong, 1998), Ma Huang became the foreign drug that exposed the façade of America's favorite pass-time and a dangerous agent among Americans (Kolata and Bogdanich, 2003; Kapner, 2004).

Ma Haung is just one case study of how a historically safe remedy can have its values misinterpreted by an untrained public. While Ma Huang is a well-documented instance of this type of medical translational error, there are other similar examples such as, the attempt to bring kava to the American population (Teschke and Lebot, 2011; Lebot, 2006). However, one of the great differences between the case of the Chinese herbal pharmacopeia and, any other herbal products, is the great network of institutions and advocates coalescing around Traditional Chinese Medicine who can organize for a safer patient environment (Patwardhan et al., 2005).

Furthermore, there is reason to believe that the United States may be moving towards cultural paradigms in which safe public use of Chinese herbal formulas is more readily adaptable. In the concluding sections, this piece will reflect on what current American events predict a positive forecast in the domestic environment for the eventual safe use of over the counter Chinese herbal formulas and, what future benchmarks might be used to measure progress in the near future.

Measures of Future Viability of Over-the-Counter Use

However broadly the biomedicine and Chinese medicine theoretical frameworks differ they do not fundamentally oppose one another. They are, by definition, "complimentary" methods of tackling questions of health. The parallel oaths to moral responsibility, by practitioners in each tradition, capture the shared desire to improve the human condition (Ogunbanjo and Knapp van Bogaert, 2009). Historically, one of the translations issues between paradigms has been the single-focus lens of biomedical research seemingly at odds with the holistic framework of Chinese medicine (Verpoorte, Choi, and Kim, 2005). However, recent developments suggest a shift in the biomedical outlook. Current trends in pharmaceutical research reflect a growing consensus that systems' biology and, its emphasis on the value of networks, is the most promising route for future drug development (Verpoorte, Choi, and Kim, 2005; Hopkins 2008).

Such a change in the institutional discussion could amend problematic methodological differences between the schools (Verpoorte, Choi, and Kim, 2005). Furthermore, increased emphasis on network systems in medical research could have a positive influence on the public sector's decision making schema in the use of dietary supplements, such as Chinese herbal formulas. A move by medical experts' towards a systems approach to medicine could alert Americans to the value of balanced formulas over single ingredient treatments. It follows that the market incentive to provide dangerously simplified "bang for your buck" products would be dampened. Thus, a significant level of public awareness of the biomedical community's view on systems sciences would be one possible benchmark signaling a safer environment for over the counter Chinese herbal formulas in the US.

A second marker of interest should be Americans' perception of the value of the Chinese herbal tradition. As one of the challenges identified in the Ma Huang case study was the absence of a rich historical and cultural context associated with its safe use, the American public will need to be educated with a stand-in framework to guide safe-behaviors. In looking at the dominant medical system for a model of public education, establishing the image of "expert" is an essential step in earning counseling privileges. Expertise, intellectual authority and their value are, in Western culture, signaled in part by perceived difficulty to obtain a body of knowledge, time and effort required to achieve the knowledge and, the codifications of standards (Freidson 1970; Tuch and Martin, 2001). A proxy for these variables could be rigorous regulations levied by academic institutions and licensing boards. Such tactics have been used successfully to earn members of the biomedical community esteemed positions in American society (Tuch and Martin 2001). As more academic programs move toward national accreditation and more states licensing boards add rigor to practitioner standards, the public's valuation of the Chinese herbal tradition can be expected to rise.

Finally, a national decrease in the practice of qualifying the term "herbalist" with terms such as "Chinese" or "Oriental" would be a signal of the broad adoption of relevant assumption regarding safe use of Chinese herbal formulas. Descriptive terms such as "Chinese" and "Oriental" relegate formulas to the space of the "other" (Said, 2001), immediately labeling them as visitors in

the American experience. By establishing the title "herbalist" as the operative term, the focus shifts to a place where Americans don't have to be distracted by the perceived exoticism of a health product.

While this point may seem at odds with the previous point of increasing public value of expertise in this specific field, this is not the case. One among many counters to this concern is that the Chinese medicine herbalist might simply become the status quo among licensed herbalists so that "Chinese," no longer needs to be explicitly stated.

One might mentally assess the validity of the aforementioned benchmarks by, imagining how the American encounter with Ma Huang might have differed under such conditions. If Chen, Schmidt and their audience had had a framework to consider the value of a multi-target drug, they might have shown more interest in the systems effects of an herbal formula containing Ma Huang than as an isolated chemical. If all state governments had licensing boards for herbalists, citizens would have had access to easily identifiable official experts to guide their use of Ma Huang. And if those experts carried a simple title without superfluous adjectives latent with complex prejudices, American patients might have been more likely to heed safety guidelines provided by those individuals. Obviously this exercise of the imagination is a far cry from empirical proof, but as reviewed above, these benchmarks have enough theoretical substance to form a working blueprint.

Conclusions

Unfortunately, the current US cultural climate cannot be expected to foster safe use of over the counter Chinese herbal formulas, but the outlook for the future is bright. Biomedicine is moving into closer alignment with holistic methods, legislation codifying the role of Chinese medicine practitioners is making its way into Congress, and the Chinese medicine community is growing, increasing the likelihood of further organization and becoming more mainstream. To facilitate the achievement of benchmarks, the community will need to take action: 1. Prepare American Chinese medicine students to participate in systems science research and public education; 2. organize pressure on legislative forces to create productive regulation at the state level and; 3. adopt "herbalist" as a primary state issued label, using qualifiers like "Chinese" as a subcategory. If the Chinese medicine community wants to practice in new contexts such as the United States, a responsibility to create a safe environment for such treatments follows.

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