

## A Beautiful Collision: Alternative Modalities and Biomedicine

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Traditional and alternative medical approaches are increasingly being investigated, analyzed, and used as either substitutes for or complements of science-based biomedicine. While each of these forms of medicine has distinct philosophies, objectives, shortcomings, and strengths, alternative medicine seems to be gaining more acceptance, recognition, and respect as a viable healthcare option. Not only are biomedical forms of care beginning to adopt several of the fundamental values of alternative medicine, but alternative modalities are progressively being utilized in response to the limitations and inadequacies of biomedical practices. Based on its viewpoints and approaches to treatment, alternative medicine is often used to manage various diseases and conditions which are deemed incurable by biomedical standards. Likewise, its separation from the technological, corporate, bureaucratic, and scientific forces which often plague biomedicine has enabled alternative medicine to develop into a practice that offers a more thorough, personal, and preventative mode of healthcare. As such, alternative therapies are enabling people to “expand their horizons beyond the absence of disease to a state of ‘super health,’ encompassing physical, emotional and spiritual well-being.”<sup>1</sup> Ultimately, patients would receive the most comprehensive form of care from a therapy that integrates the advantages of both biomedical and alternative health systems.<sup>2</sup>

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<sup>1</sup> Paul C. Reisser, M.D., Dale Mabe, D.O., and Robert Velarde, Examining Alternative Medicine: An Inside Look at the Benefits & Risks (Illinois: InterVarsity, 2001), 60.

<sup>2</sup> PBS FRONTLINE, Pros and Cons of “Integrative Medicine”, 4 November 2003, <<http://www.pbs.org/wgbh/pages/frontline/shows/altmed/clash/integrated.html>> (14 February 2007).

In order to comprehend and appreciate alternative medicine's ever-increasing popularity and implementation, one should understand the basic definitions and characteristics of both alternative modalities and biomedicine. As mentioned in one source, differences between traditional and western medicine can generally be assigned to three distinct categories which include "the philosophical approaches to health; the structural components of health care delivery, and; the guiding principles of each knowledge system."<sup>3</sup>

Alternative medicine is commonly referred to as traditional or unorthodox therapy. Generally nature-oriented and founded upon cultural traditions or superstitions, alternative modalities often recognize and attribute overall health to a natural ordering.<sup>4</sup> As exemplified by the naturopathic perspective, "healing is not a matter of waging war against disease by introducing extraordinary outside resources to attack the pathogens. Rather it is a matter of supporting the body's own inherent healing mechanisms to help them actualize their highest potential."<sup>5</sup> Instead of fixating on the amelioration of symptoms, alternative medicine aims to prevent disease and optimize one's overall well-being which, according to the holistic approach, is "a matter of living in harmony and balance in all areas of life – spiritually, emotionally, and physically."<sup>6</sup> In this way, health becomes a way of life rather than a mere absence of illness.<sup>7</sup>

On the other hand, biomedicine tends to be a form of care which is closely associated with science, technology, objectivity, and rationality. Also referred to as

<sup>3</sup> Angeline Dee Letendre, "Aboriginal Traditional Medicine: Where Does It Fit?," Crossing Boundaries – an interdisciplinary journal 1, no. 2 (2002): 82.

<sup>4</sup> Letendre, 83.

<sup>5</sup> William Collinge, PH.D., The American Holistic Health Association Complete Guide to Alternative Medicine (New York: Warner Books, 1996), 102.

<sup>6</sup> Collinge, 5.

<sup>7</sup> Bill Moyers: Healing and the Mind, Vol. 1 – The Mystery of Chi, 58 min., David Grubin Productions, 1993, videocassette.

Western, allopathic, or conventional medicine, biomedicine has gradually achieved a mainstream status over the past few centuries.<sup>8</sup> Due to its understanding of human biology and its association with invasive, technological, surgical, and chemical techniques, biomedicine has acquired a higher degree of scientific support and justification than its alternative counterpart.<sup>9</sup> Specifically, many forms of traditional care rely on experience rather than the scientific method for validation.<sup>10</sup>

In terms of foundational beliefs, the biomedical philosophy has historically been linked to a focus on the amelioration or masking of symptoms. This is contrasted with the alternative desire to address the underlying causes of a condition.<sup>11</sup> Another key difference between these two forms of care is that, while holism is a central tenet of alternative therapies, biomedicine tends to separate the physical from the mental, emotional, spiritual, genetic, and environmental. Similarly, “western medicine tends to fragment its care of patients by categorizing the treatment of illnesses into different areas, such as internal medicine or mental health.”<sup>12</sup> This biomedical feature is evidenced by the diverse gamut of specializations such as dermatology, cardiology, ophthalmology, and orthopedics which constitute allopathic institutions. These fundamental variations in principle and objective have ultimately led to two distinct forms of healthcare which are characterized by unique modes of practice, technique, and service.

Having made this basic distinction between alternative and conventional forms of medicine, one can begin to analyze the increasing prominence and integration of

<sup>8</sup> James Whorton, M.D., Countercultural Healing: A Brief History of Alternative Medicine in America, 4 November 2003, <<http://www.pbs.org/wgbh/pages/frontline/shows/altmed/clash/history.html>> (14 February 2007).

<sup>9</sup> Collinge, 7.

<sup>10</sup> Collinge, 7.

<sup>11</sup> Julian Whitaker, “Conventional Medicine,” Health & Healing: Your Definitive Guide to Alternative Health and Anti-Aging Medicine 13, no. 5 (2003): 1-2.

<sup>12</sup> Letendre, 82.

alternative medicine throughout Western-oriented regions. As posed in one work, “If conventional Western medicine has made such impressive strides over the past century, why are so many people beating a path to alternative medicine’s door?”<sup>13</sup>

The first suggested explanation for this trend is that individual’s are beginning to desire a form of care that is preventative rather than curative. This is fundamentally related to the underlying philosophical difference between alternative medicine and biomedicine. For example, in the alternative practice known as Ayurveda, the “first priority is prevention, health promotion, and enhancement.”<sup>14</sup> As a result, the goal of this therapy is not to treat diseases or symptoms but to optimize the overall functioning of one’s body and its potential for self-diagnosis, defense, and repair.<sup>15</sup> Many patients seem interested in going beyond the biomedical goal of a neutral, symptom-free state and more toward a state of optimal well-being.<sup>16</sup>

Nevertheless, while numerous alternative modalities such as Chinese Medicine, Ayurveda, and Naturopathy have an ultimate goal of prevention, many individuals who seek unconventional therapies do so because of symptoms which are already established. With this in mind, the holistic approach to treatment might be yet another feature that is attracting people to unconventional modalities of healthcare. Specifically, unlike biomedicine which uses an analytic approach and many specialists for the treatment of an individual, alternative medicine aims to treat the *whole* person and sees symptoms as part of a larger, functional being.<sup>17</sup> Because of this, many patients tend to consider alternative

<sup>13</sup> Reisser et al., 60.

<sup>14</sup> Collinge, 65.

<sup>15</sup> Collinge, PBS FRONTLINE, and “Complementary Systems: Help for the whole person,” The Daily Item, 28 October, 2003, sec. E.

<sup>16</sup> Reisser et al.

<sup>17</sup> Collinge, 16 and Letendre, 82.

treatments as more integrative, comprehensive, personal, and individualistic. For instance, in Chinese Medicine, “many of the treatments are person-specific rather than symptom-specific or disease-specific.”<sup>18</sup> As a result, even if two individuals are experiencing the same symptoms, their herbal remedy prescriptions or acupuncture therapies may be different. For this reason, alternative medicine is often associated with personally-tailored care.

Related to this, it is interesting to note that biomedicine seems to be modifying its approach to healthcare and implementing some of the holistic, preventative, and personalized aspects which have customarily been associated with alternative therapies. For example, less than four years ago, one scientific journal noted an increase in studies regarding the application of DNA tests for individual disease risk assessment, diagnosis, and treatment regimens.<sup>19</sup> More recently, an article published within the last year discussed how this biomedical objective of personalized care seems to be coming to fruition. Specifically, a highly-technological and science-based technique known as systems biology is a newly-evolving method that is inherently aligned with Western and allopathic forms of healthcare.<sup>20</sup> “The goal of systems biology is to combine molecular information of various types in models that describe and predict function at the cellular, tissue, organ, and even whole-organism levels.”<sup>21</sup> Via the use of DNA sequencing and information on mRNA and protein levels, systems biology aims to acquire an understanding of molecular changes associated with diseases and drug treatments. In this way, it is hoped that systems biology will enable physicians to identify patients who are

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<sup>18</sup> Collinge, 32.

<sup>19</sup> John S. Mattick, “The New Genetics: The human genome and the future of medicine,” MJA 179 (2003): 212-216.

<sup>20</sup> Celia Henry Arnaud, “Systems Biology’s Clinical Future,” C & EN, July 2006, 17-26.

<sup>21</sup> Arnaud, 17.

best suited for a particular drug.<sup>22</sup> Ultimately, as one proponent of systems biology stated, “Understanding biological networks and how disease perturbs them ‘gives us the ability to really revolutionize diagnostics, therapeutics, and ultimately disease prevention.’”<sup>23</sup> Biomedicine’s adoption of preventative and personalized approaches are strikingly similar to the objective of alternative medicine.

Equally important, the rather recent development of an organization known as the Consortium of Academic Health Centers for Integrative Medicine highlights the growing focus on merging alternative with allopathic modalities. Specifically, this formalized group is comprised of various medical schools which are interested in reforming the medical education system so that it includes *both* unconventional and biomedical philosophies. Only a few years ago, over one half of all U.S. medical schools had adopted courses related to alternative medicine into their curriculum.<sup>24</sup> This trend undeniably exemplifies biomedicine’s ever-growing interest in and implementation of alternative aspects of healthcare.

Moving on, the second reason for the growing interest in alternative medicine does not have to do with its philosophical approaches but rather its disconnection from the technological, institutional, and bureaucratic forces that tend to make biomedicine a more standardized, systematic, and often ‘production-line’ form of healthcare.<sup>25</sup> Alternative modalities are generally not as tightly linked to the governmental, insurance, and commercial forces which commonly influence the quality of biomedical care. As one source suggested, significantly contributing to biomedicine’s problems with delivery

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<sup>22</sup> Arnaud, 17-26.

<sup>23</sup> Arnaud, 26.

<sup>24</sup> PBS FRONTLINE.

<sup>25</sup> Reisser et al., 66-72.

are the “ever-growing number of regulatory requirements from all levels of government, the ever-present worry that a less-than-ideal outcome will trigger a lawsuit, and increasingly convoluted payment systems.”<sup>26</sup> Not only do these factors affect the organization and functioning of biomedicine, but they also impact the services which it offers. For instance, the time shortages and financial pressures experienced by allopathic physicians often inhibit their ability to provide comprehensive examinations and to focus on the general well-being of patients. As summarized in one work, “few insurance plans (and certainly not Medicare) reimburse physicians for a lengthy ‘wellness’ evaluation, and not many patients are willing to pay for one themselves.”<sup>27</sup>

Additionally, many individuals, especially those who are uninsured, are attracted to alternative modalities because of a genuine inability to pay for biomedical services. The impact of insurance companies and scientific corporations has made Western medicine a form of healthcare that encompasses staggering expenses. For instance, pharmaceutical medications as well as various technological services such as x-rays, MRIs, and CAT scans come with an overwhelming price tag.<sup>28</sup>

In contrast to this, alternative therapies are commonly capable of offering treatments which are more thorough and less costly. Contributing to this characteristic is the fact that many alternative therapies are self-funded and consequently less affected by legal or agency-based guidelines, liability or malpractice issues, as well as the influences of pharmaceutical companies. Moreover, alternative treatments are often more cost effective since they tend to be nature based rather than scientifically synthesized. Thus,

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<sup>26</sup> Reisser et al., 69.

<sup>27</sup> Reisser et al., 66.

<sup>28</sup> Reisser et al., 69.

alternative medicine's freedom from corporate forces often provides it with an advantage in the realm of medicine.

Lastly, the final explanation for the growing popularity of alternative medicine is that it is often viewed as capable of filling in where bioscience has failed. For instance, alternative therapies have developed a dominant role in dealing with conditions which are often difficult or unable to be diagnosed and cured by conventional medicine. Some of these may include obesity, chronic fatigue syndrome, AIDS, and depression.<sup>29</sup> Similarly, alternative therapies are much more adept at dealing with symptoms that are physiological and lifestyle-induced rather than pathological. It is these types of conditions which are “more effectively approached with time, a listening ear, encouragement, optimism … and drugless remedies—for example, lifestyle changes, diet, exercise, counseling, massage, relaxation techniques.”<sup>30</sup>

Alternative modalities are also being used in response to the inadequacies of biomedical treatments. Specifically, with rising awareness of the potentially adverse effects and harmful, long-term consequences of prescription drugs, alternative medicine is rapidly gaining in its appeal to the public.<sup>31</sup> According to the alternative medicine philosophy, gentle, noninvasive, and nonchemical therapies are preferred to any treatment which may suppress symptoms. This is because symptoms are expressions of the body’s innate healing abilities, and artificial medications are being implicated in bodily adaptations which result in a loss of self-repair capabilities.<sup>32</sup> Likewise, the

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<sup>29</sup> Reisser et al., 62 and Whorton, M.D.

<sup>30</sup> Reisser et al., 63.

<sup>31</sup> James Whorton, M.D., Countercultural Healing: A Brief History of Alternative Medicine in America, 4 November 2003, <<http://www.pbs.org/wgbh/pages/frontline/shows/altmed/clash/history.html>> (14 February 2007).

<sup>32</sup> Collinge, 100-101.

misuse and overuse of allopathic antibiotics have been linked to the development of many drug-resistant bacteria and diseases.<sup>33</sup>

In a similar manner, the alarming percentage of deaths which result from medical error is yet another reason that individuals are looking beyond conventional, allopathic therapies. Specifically, biomedicine, whose related mistakes result in the death of tens of thousands of individuals each year, was recently determined to be the third leading cause of death.<sup>34</sup> As stated in one source, “our high-tech approach to disease kills a minimum or 225,000 people each and every year.”<sup>35</sup> It seems that many of the inherent strengths of biomedicine are also its most limiting weaknesses.

Overall, alternative modalities are gaining more prestige and utilization within medical systems and regions that have traditionally been aligned with science-based, technological biomedicine. This is evidenced by the increasing number of unconventional treatment centers within mainstream hospitals, the appearance of alternative medicine courses in allopathic schools, and the growing number of individuals who investigate and utilize alternative modalities. As such, one cannot disregard or deny the significant role that alternative therapies play in the realm of medicine, and a reasonable aspiration for our society should be “comprehensive health care … which incorporates the best of conventional evidence-based Western bioscience with evidence-based complementary therapies.”<sup>36</sup> A collaboration of biomedical and alternative therapies seems to offer nothing but potential for optimal healthcare.

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<sup>33</sup> Collinge, 317.

<sup>34</sup> Whitaker, 2.

<sup>35</sup> Whitaker, 2.

<sup>36</sup> PBS FRONTLINE.

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