From parallel to partnership

Factors that develop integrative relationships between biomedical and alternative medical practitioners

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Abstract

Purpose – In the USA, there has recently been an unprecedented convergence of complementary/alternative medicine (CAM) with mainstream biomedical care. This confluence may lead to a deeply rooted philosophical conflict. This qualitative study works to identify factors that health-care leaders can use, which will build a pathway to greater integrative practice between medical doctors and CAM practitioners – from parallel existence to partnership – by examining the tensions between biomedical medicine and naturopathic medicine. The purpose of this study is to offer short-term suggestions for partnership and long-term recommendations for better understanding.

Design/methodology/approach – An original qualitative study using semi-structured with CAM practitioners and biomedical practitioners.

Findings – Areas of conflict that are preventing synergy are identified and a pathway for health-care leaders to follow to create greater integration and partnerships is suggested.

Research limitations/implications – This is a qualitative and exploratory study that has significant limitations on generalizability.

Practical implications – This study suggest steps that both types of health-care practitioners can take to increase their success at working together on an individual level, a group level, an organizational level and on an industry-wide basis, as well as provide a specific pathway to create greater integrative practice for health-care leaders.

Social implications – The results indicate that stronger partnerships between different types of medical practitioners increase patient choice, patient satisfaction and outcomes.

Originality/value – Increasing interested in CAM modalities is driving more contact between CAM practitioners and biomedical practitioners. This contact is best established in partnership between practitioners rather than in parallel. This original research outlines the sources of conflict and provides recommendations for encouraging greater synergy.

Keywords Collaboration, Conflict, Organization development, Integrative medicine, Philosophy of medicine

Paper type Research paper

Introduction

Interactions between, and patient attitudes toward, traditional biomedicine and alternative forms of medicine are rapidly changing in the USA, with complementary and alternative

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medicine emerging and growing significantly since the early 2000s (Barnes *et al.*, 2004). Despite this change, there remains a lack of integration and little information on how to make integration between these two forms of medicine successful (Wells *et al.*, 2010).

The national increase of patients turning to complementary/alternative medicine (CAM), various mandates within the Affordable Care Act, a new focus on mind-body connections (Lavretski *et al.*, 2018) and the emergence of new and radically different approaches to health-care legislation at the federal level in light of the 2016 election are collectively contributing to increased interaction between biomedical physicians and CAM practitioners (Callahan, *et al.*, 2009; Pagán and Pauly, 2005). Patients are now spending nearly $30.2bn annually out of their pocket on CAM treatments, and >59 million people in America have used some form of CAM (Nahin *et al.*, 2016); moreover, CAM usage by cancer patients hovers at 50 per cent (Scarton *et al.*, 2018). In contrast, in Germany, approximately 50 per cent of all patients use some form of CAM for their health care (World Health Organization, 2019, Essential Medicines and Health Products Information Portal).

Traditionally, in the USA, these two types of practitioners do not collaborate on patient care, but work more or less *in parallel*, independently of one another. Recent pressures, however, both legislative and market-driven, are creating an environment where collaboration is not only growing but appears to be in the best interest of the patient (Louise, 2000; Boone *et al.*, 2004). It is this collaboration that health-care leaders need to foster, provide vision toward and lead through to create synergy between these disparate provides to benefit patient care.

While fully acknowledging that there are a wide variety of heterodox practitioners in the USA beyond naturopathic doctors and that alternative medicine has a global reach as demonstrated by more than 30 countries represented in the World Naturopathic Federation (World Naturopathic Federation, 2019), this study focuses on various factors that can lead to and influence integrative relationships between biomedical and naturopathic practitioners. Before proceeding, it will be useful to broadly define each separate set of practitioners. For clarity, we will be calling heterodox practitioners "alternative" medical practitioners rather than the more modern term, "integrative" or "complementary" medical practitioners because we believe that the goal of integrative medicine is the full assimilation of biomedical and heterodox practitioners and that there are fewer full examples of integrative practice and practitioners than are needed in the field. By biomedical practitioners, we mean medical doctors (MDs) and doctors of osteopathic medicine (DOs) whose practice can be characterized as "conventional medical treatment of disease symptoms that uses substances or techniques to oppose or suppress the symptoms" (Gale Encyclopedia of Medicine, 2008). Typically, this group is more reactive to symptoms than proactive in that they focus not as much on prevention or as often on the root cause of an illness but rather on reacting to the emergence of and treatment of the various symptoms of a given illness or disease. Because this group of practitioners focuses on alleviating the symptoms of a given disease, they use various drugs and substances to produce effects in the patient that are different or *other than* those of the disease (Louise, 2000). Because of this method, the founder of homeopathy, Christian Friedrich Samuel Hahnemann (1755-1843), usually referred to as Samuel Hahnemann, pejoratively termed these physicians "allopathic" at the turn of the nineteenth century. He coined this term using the ancient Greek *allos* ("other") and *pathos* ("suffering") in contradistinction to his own creation, homeopathy (from the Greek *homos*, "same," and *pathos*), whereby the substances used to treat a disease would, at least in larger quantities, produce or reproduce the *same* symptoms of the original disease. As some practitioners chafe at the term allopathic (Goldberg *et al.*, 2002), our study uses the more standard and neutral term "biomedical" to describe what some call allopathic medicine.

Naturopathic practitioners (NDs) use a "system of therapeutics that relies on natural (nonmedicinal) forces. The focus of naturopathic practitioners is on preventing disease and restoring function (Medical Dictionary for Health Professionals, 2012) and are often identified as CAM practitioners or integrative practitioners. As a point of clarity, this research focuses on NDs licensed and certified through the Council on Naturopathic Medical Education (CNME), which is recognized by the National Advisory Committee on Institutional Quality and Integrity, the accreditor of accreditors, rather than untrained, holistic healers of various backgrounds and educations. NDs were selected for this study because of the breadth of their practice and the depth of their training (American Association of Naturopathic Physicians, 2018).

The need to address the growing intersection of these two traditionally disparate modes of addressing health has not gone unnoticed. For example, in 2011, the Bravewell Collaborative, a partner in Duke University's Integrative Healthcare doctoral program committed to bringing about optimal health and wellness through integrative care (Duke University, 2018 Integrative Healthcare Leadership), created a report that specifically recommends further research into the subject of integrative care to allow more patients access to the services. Bravewell's 2011 report cited continuing faculty and practitioner development among the factors driving future success and requests for research around best practices. This study offers some perspectives on the interactions between biomedical and naturopathic practitioners and presents health-care leaders a basis for further best practices development.

A history and literature

Early biomedicine traces its roots to the fifth century BCE Greek physician Hippocrates, as noted by the famous "Hippocratic Oath" taken by all biomedical physicians, which binds them to a high code of ethical behavior that puts the patient's well-being first. Hippocrates also saw disease as psychosomatic (meaning that it involves both the mind and the body) and not merely as a mechanical or technological problem. Across the nineteenth and twentieth centuries, modern medicine began to stray increasingly further from the traditional Hippocratic tradition. The following provides a succinct summary of Hippocrates and his relation to contemporary biomedicine:

> Modern medicine can derive valuable lessons from the Hippocratic tradition. For the coming 21st century, medicine more than ever senses the need to combine the concepts of humanistic values and the Hippocratic messages with the technologic "imperative" (power). This bond is necessary to the improvement of medicine in the future because, currently, the enormous biomedical technology so far has contributed little to the traditionally human fields of psychosomatic and functional disturbances, posing new dilemmas and threatening scientific problems (Marketos and Skiadas, 1999, pp. 1159-1163).

Modern biomedical practice has its roots in innovations in cell pathology and pharmacology that emerged in central Europe during the late nineteenth century. Early experts and innovators such as Sir William Osler, the founder of Dean of Johns Hopkins Medical School, incorporated these new sciences into medical education. The 2 + 2 model, with two years of scientific grounding in a classroom and laboratory, followed by two years of hospital/bedside training, was one of the hallmarks of Hopkins' MD program (Johns Hopkins, 2019).

Another important influence in shaping the modern biomedical profession was the Flexner Report. This "report card" of medical education in the USA and Canada was carried out by Abraham Flexner who was commissioned by the Carnegie and Rockefeller Foundations to rate all schools (Cooke *et al.*, 2006). The A schools received enormous amounts of funding from these powerful foundations. The C schools, which always included the "irregular" schools (chiropractic, naturopathic, homeopathic) as well as women's and

African-American medical colleges, received little to nothing. Flexner was biased (Steinecke and Terrell, 2010) and his visit schedule precluded thoroughness; however, the standards/model for his evaluation was solid: he used John's Hopkins curriculum and campus as the gold standard (Cooke *et al.*, 2006).

Naturopathic medicine began in the USA in the early 1900s with Benedict Lust. Lust conceived of naturopathic medicine as the use of healing methods from various healing traditions around the world. Naturopathic medicine was later formalized and systematized by Henry Lindlahr, M.D. (Louise, 2000; Macintosh, 1999). Since 1978, the education of naturopaths in the USA and Canada is accredited by the CNME and recognized by the US Department of Education. Naturopaths must sit for a licensing exam created by NPLEX to practice in licensed states in the United States and provinces of Canada (Council on Naturopathic Medical Education, 2019).

After the Second World War, spectacular advances in surgery and the advent of "wonder drugs" such as antibiotics ushered in a new era of biomedically dominated medicine. Biomedical physicians also assimilated osteopathic physicians; however, on the whole, differentiated credentialing laws began to heavily regulate and narrowly restrict the medical practice to mainstream biomedicine. Certain laws, even now, prohibit biomedical physicians from practicing with non-biomedical physicians (Herman and Coulter, 2015). One result of this consolidation of ideology and power was that in the USA a social construct developed in which people believed that only pharmaceuticals and surgery constituted actual health care and that any other modalities of treatment or approaches were not legitimate or even quackery (Starr, 2017).

In light of this division, it is no wonder that today the very definition of what constitutes integrative medicine is debated (Boone *et al.*, 2004). Many biomedical physicians consider themselves integrative if they prescribe vitamins or tell patients to modify their diet; naturopathic physicians, by contrast, are vexed at the thought that attending a weekend or online seminar on vitamins or nutrition qualifies one as integrative. Some integrative clinics are in essence MD-directed medical centers with an array of complementary services on tap – provided by allied practitioners or the MD. Other clinics offer a round table of diverse practitioners in a fairly egalitarian arrangement (Maizes *et al.*, 2002; Berry, 2004; Cancer Treatment Centers of America, 2019). Clearly, there are multiple variants of what is called integrative; moreover, a more precise taxonomy of integrative practice must allow for and define varying levels of integration. To that end, Boone et al. created a continuum that acts as a taxonomy of integrative practice. Boone describes the first level of integrative medicine as one that is forced upon the practitioners by the patient. The levels become more enmeshed as specific practitioners choose to refer to one another. The next step toward greater integration is practicing in the same clinic or space. Furthermore, steps include greater integration in physician education and focusing on the philosophical, structure, process and outcome goals that typify different approaches.

Ultimately, Boone developed this definition of integrative healthcare:

Integrative healthcare:

- seeks, through a partnership of patient and practitioner, to treat the whole person, to assist the innate healing properties of each person and to promote health and wellness as well as the prevention of disease (philosophy and/or values);
- is an *interdisciplinary, non-hierarchical blending* of both conventional medicine and complementary and alternative healthcare that provides a seamless continuum of decision-making and patient-centered care and support (structure);
- uses a *collaborative team approach* guided by consensus building, mutual respect and a shared vision of health care that permits each practitioner and the patient to

contribute their particular knowledge and skills within the context of a shared, synergistically charged plan of care (process); and

- results in more effective and cost-effective care by *synergistically combining* therapies and services in a manner that exceeds the collective effect of the individual practices (outcomes).

What is becoming starkly clearer is that the web of relationships that support collaboration are complicated by legislation (Herman and Coulter, 2015), financial incentives (Yu *et al.*, 2018), ontological and epistemological perspectives (Louise, 2000), communication practices (Wetzel *et al.*, 1998) and notions of status and authority (Starr, 2017), thus providing health-care leaders with an approach for managing this complex web is beneficial to the establishment of true integrative care. In their book, *Integrative Medicine: Principles for Practice*, Benjamin Kligler and Lee (2004) emphasize that integrative care is about practitioner collaboration and cooperation among the physicians themselves. It is also clear that pay-for-service reimbursement structures, many aspects of managed care and the overall dominance of a disease-focused system (and broader culture) work against integration. Ultimately, the difference in practice is driven by political history, philosophical ideas, money and scientific methods.

Methodology

This study uses a grounded theory/qualitative approach. The methodology for this study was chosen because of its active nature, its application to actual organizational situations, the emergent nature of the topic and the need for the research to reflect the nuances inherent in a complex problem.

As a scholar-practitioner in the field of organization development who has worked in health care and claims a profound interest in health-care human processes, the lead author must disclose her pre-understanding in the field of health care (Glaser and Strauss, 1999; Gummesson, 2000). Prior to 2006, she had no knowledge of CAM and was focused exclusively in the biomedical arena. She had heard references to NDs, acupuncturists and other kinds of alternative health care. She was uninterested, at best, because of her own experience of work in the biomedical medical field. This changed when she met an ND and was exposed to a different perspective and philosophy on health and wellness. Now, she is standing at the intersection of traditional biomedical health care, complementary/alternative healthcare and her own field, organization development and leadership. The view of this intersection is interesting, valuable and particularly undescribed in biomedicine, naturopathy or applied behavioral science. The purpose of this article is to describe practices that leaders can implement, which can then contribute to positive working relationships between these two differing approaches to health. While the research in this article focuses on the working relationships between NDs and biomedical physicians, many of the recommendations could potentially applied between different types of practitioners.

The number of people interviewed followed the notion of "theoretical saturation" suggested by Glaser and Strauss (1999). Four biomedical physicians and three complementary/alternative practitioners were interviewed in one-on-one settings. Only one of the biomedical physicians represented in this study currently worked in an integrative environment. Two of the naturopathic practitioners represented in this study currently worked in integrative environments. All participants in the study were assured of their anonymity. Aside from their workplace role as a biomedical practitioner, naturopath or whether or not the participant was currently in an integrative environment, no other demographic information was gathered about the participants. For purposes of this

research, an integrative environment is one in which both biomedical and naturopathic practitioners work with patients; the amount of collaboration or its nature are not noted.

Participants were recruited through the personal relationships of the researchers using a snowball approach whereby an interviewed participant is asked to provide the name of another potential participant (Goodman, 1961). To ensure a wide variety of input, participants are located in states in which there is a strong, licensed presence of naturopathic practitioners and in states where there is not a strong, or licensed, presence of naturopathic practitioners.

After introductions, the researcher explained the purpose of the study and obtained informed consent consistent with the university IRB approval that was obtained for this research, granted from Roosevelt University in Chicago, IL (IRB 2013-30). Then, the researcher asked the questions of the participant, taking notes as the participant discussed his/her feedback.

Participants were offered no remuneration for their participation.

Immediately after each interview, the researcher transcribed the notes and began a process of coding the text and creating any memos that would illuminate meaning. Textual data were coded and analyzed, and the relationships between the discrete parts connected to create a model that is presented in this article.

The questions in the research used an appreciative approach. Participants (Biomedical Practitioners were asked about Naturopaths and vice versa) were asked about the following:

- What kinds of complementary/alternative practitioners (biomedical practitioners) do you work with?
- Describe the type of professional relationship that you have with CAM practitioners (biomedical practitioners).
- Do they work in your office?
- Do you refer patients to them?
- Do you consult with them?
- Do you hold joint meetings about common patients?
- Thinking of the most successful of these professional relationships, what do you think makes it successful?
- Thinking of the least successful of these professional relationships, what do you think held it back from being a partnership?
- If you could give CAM practitioners (biomedical practitioners) one piece of advice for establishing a successful relationship with a biomedical practitioner (CAM practitioners) what would it be?
- What misconceptions do you think CAM practitioners (biomedical practitioners) have about working with biomedical practitioners (CAM practitioners)?

Both content and relationship analysis were conducted.

Discussion and findings

After decades of nearly unquestioned cultural authority (Starr, 2017), biomedical medicine is confronting a force that is, from its perspective, undermining physicians' ability to act and take responsibility for healthcare. Their financial well-being may seem threatened by burgeoning CAM options. Their authority may seem undermined by others with alternative and potentially more viable knowledge (Baer, 1989). Some of the forces that work in a vector

against that unchallenged authority include escalating costs of healthcare, costs of malpractice insurance, sub-ordination of medical decision making to managed care organizations, federal regulations, changing consumer-patient expectations and competition (Baer, 2004). Health-care leaders would be wise to attempt to find the best mix of biomedical and integrative practitioners to manage these forces.

There are imbalances in research in both the biomedical and the naturopathic fields

Despite its proven power in creating some highly effective interventions, singularity in research (testing one variable at a time) can be reductionist and omit the intervening complex[1] and immeasurable factors. Recommendations seemingly flip-flop on a yearly basis, creating confusion, mistrust and ambivalence among patients. These recurring changes contribute to ever-shifting recommendations found in the biomedical literature, and the general frustration that the public experiences when the results of a new study are announced (Carroll, 2017). Further, the notion that randomized controlled trials (RCTs) are the only way conduct real scientific inquiry is not accurate. "Specifically, one may be led to assume that RCTs are necessary for reliable causal inference or that RCTs are guaranteed to deliver reliable results. A number of philosophers of medicine have in the past decade or so argued that these stronger claims do not hold to scrutiny" (Stanford Encyclopedia of Philosophy, 2016).

Conversely, a systems perspective, which typifies the naturopathic approach to health, is far less researched and is more difficult to quantify when it is studied as it is a complex system (Hayek, 1978; Edwards, 1997). However, a systems approach, balanced with individual, focused study would be the ideal set of controls. This amalgamation of research practice typifies the ontological split between biomedical practitioners and naturopaths. According to The Institute for Functional Medicine (2011), "an abundance of research now supports the view that the human body functions as an orchestrated network of interconnected systems, rather than individual systems functioning autonomously and without effect on each other".

It is challenging to measure and study the naturopathic conceptualization of the human body as a set of interconnected systems involving body-mind using the RCT structure that was designed for drug investigation for the biomedical approach. However, an outcome-based approach that allows for stacked or multiple integrative therapies could work for naturopathic-based inquiry. CAM therapies typically rely on feeding information or even mild disruptive events, such as fluctuating temperatures in hydrotherapy, to the body. The body's auto-regulatory systems (immune, inflammation, repair, neurological, and hormonal) receive this stimulus and hopefully auto-correct (Smith, 2008; Mattson, 2008); and this could be measured through research.

> My canned response to the criticism about research is that there are over 50,000 indexed, researched PubMed articles on integrative or natural medicine. If we were in a debate, the level of evidence maybe isn't the same that randomized clinical trials that pharma companies have the money to fund – it doesn't mean there isn't a body of evidence that is coming out of the field. One of the other challenges is we're a systems-based science, more so than allopathy, which makes it difficult to lend itself to randomized trials. And so it is difficult to get good trials on a whole systems approach. ND

Research in CAM is in its infancy and as a consequence many therapies lack the scientific rigor that is traditionally required of biomedical surgical and pharmaceutical interventions as evidenced by the National Center of Complimentary and Integrative Health's focus on developing skilled researchers in its 2016 strategic plan (NCCIH, 2016). Many naturopathic practitioners are leery of the interest of big-pharma on prescriptive practice and financial incentives offered in the biomedical world to conduct research that is tied to a strong

financial interest of major corporations (Loder, 2015). Examples of these concerns abound on both sides of the argument. In the interest of a creating a dispassionate analysis, examples were specifically omitted from this section.

The biomedical and naturopathic professions need a fuller appreciation for the training of various approaches to health

The World Health Organization (1948) defined health in as, "not merely the absence of disease or infirmity." Being healthy is a state in which a person can grow without physical or mental imbalances holding them back. A state of health for individuals allows the world to flourish, solve problems and address the challenges the world places before our collective humanity. According to the Institute for Functional Medicine, there is not a singular pathway to health, just as there is not a singular pathway to disease. Health is unique to the individual.

Arguments for banning the entry of naturopaths into the wider medical field are often about the quality of their training, lack of residency programs in hospital settings and the inability to prescribe drugs (Illinois State Medical Society, 2017). Interestingly, many of these issues are obstructions placed in the path of naturopathic practitioners specifically to deny them entry to these privileges of the profession, and then these obstructions are used against them in argument. This is an example of guild behavior that precedes the modern or postmodern setting by centuries. Most biomedical physicians do not know about the quality of the naturopathic practitioners' educational background relevant to their practice scope, but use that issue as a convenient rationale from which to launch a critique.

Further, most MDs do not feel that they fully understand CAM modalities and supplements (Ventola, 2010). Recent research reported in the *Journal of Clinical Oncology*, e.g., demonstrated that most oncologists are not well-versed in the use of herbs and supplements for oncology patients (Lee *et al.*, 2014). While *the Journal of Clinical Oncology* recommends increasing oncologist knowledge about herbs and supplements, it may be equally advantageous for a physician to enter into integrative practice surrounding the use of herbs and botanicals. Irby *et al.* (2010) work called for changes in medical education to promote various kinds of integrative practice:

> I surmise that most of the time, it's a closed bias against our profession or against naturopathic medicine. It also comes from a lack of understanding of our education and the lack of evidence for our medicine and possibly some people may have had a bad experience. I've never really had a clear understanding why some people don't like working with us. ND

> I think there is as clear misconception amongst the medical community about the training that NDs actually go through. Some sort of legislative process to confirm their licensure would be helpful. When you don't know something as a doctor, when you are supposed to know all the answers, it can be a little uncomfortable. If it's so great how come I don't know about it? It's uncomfortable. MD

> The interesting thing is that a lot of this is driven by the patients, not the doctors. If we (as medical oncologists) were so good then CAM might not be needed. They (the patients) need to have a trained person. If they seek this kind of information on the internet, on their own, it's a disaster. Working with someone with training is huge for these patients. In the recent past, this is driven by the patient. We have to adapt to what the patients want. MD

There are significant ontological differences between biomedical and naturopathic approaches

The biomedical approach to health is based on the mechanistic understanding of the body, i.e. that the body is analogous to a machine and that disease is state of disrepair that needs

fixed. Boorse (1997) defined health as the absence of disease. This contrasts with the World Health Organization's 1948 position that health is not merely "the absence of disease or infirmity".

"Thus the dividing line between disease and health is notoriously vague, due in part to the wide range of variations present in the human population and to debates over whether many concepts of disease are socially constructed" (Stanford Encyclopedia of Philosophy, 2018). However, what separates naturopathic and biomedical ontology is this notoriously vague delineation of treating the symptom versus treating the cause of illness.

The philosophical approaches to health are different between biomedical and naturopathic medical practitioners. Similarly, the differences parallel to those in the field of psychology between behaviorists and psychoanalysts, with one approach being very empirical and measurement-focused and the other relying on the richness of the internal aspects of the patient (LaMettrie, 1748). What this means for patients is that the way a biomedical practitioner would treat pain will be different than the way a naturopathic practitioner would treat pain. A biomedical practitioner will, for example, often treat a patient's feeling of pain with pharmaceuticals. A naturopathic practitioner would treat the cause of an individual's pain, often taking longer for the individual to find relief:

> *Get to know us [. . .] both personally and professionally, so they can understand our motivations for being with patients – even if at times we're at odds philosophically. They [. . .] need to know that we're not against them, but that there are other options for patients. – ND*

> *Many solutions are found outside of the box of allopathic medicine.*

> *Natural medicine is not just substituting an herb or a compounded hormone for a problem, it's working to get to the cause of the problem that getting underneath the symptoms that the patient has. –ND*

Hegemonic relationships impact the communication and ultimately patient care

Identifying, defining and mitigating the vertical power relationships that impact practice and patient care are essential (Rosenstein, 2017a). Geert Hofstede, in his study of various cultural differences across the globe, developed a concept called "power distance." Power distance measures the level of inequality in work relationships among different cultures of the world. While Hofstede used this concept of power distance as a mechanism to examine intercultural relationships, it is a useful model to examine power relationships in other constructs and contexts. This inequality identified as power distance is ranked on a continuum from egalitarianism to high power distance (Rotondo-Fernandez *et al.*, 1997). In the USA, power distance is below average, meaning that people in the USA, on an average, have more egalitarian relationships and that power is distributed more equally than in places such as Russia or China (Rotondo-Fernandez *et al.*, 1997).

Inequality is indicative of being afraid to voice disagreement with those in higher authority (Hofstede 1997). In terms of communication, being unable to disagree with others is dysfunction, "a process of domination, in which one set of ideas subverts or co-opts another" (Littlejohn, 1992, p. 247). This inability results in the suppression of alternative points of view and the broad and unquestioning acceptance of those with greater power, known as hegemony. Irby *et al.* (2010) called for a re-evaluation of the physician's professional identity.

Counter to the prevailing trend in the USA, the power distance in biomedicine is astonishingly large (Rosenstein and O'Daniel, 2008). The social authority granted to

biomedical physicians in the USA is unmatched anywhere in the world or in history (Starr, 2017). Understanding the full impact of this authority is nearly impossible. However, its contribution to an environment that allows for hegemonic relationships is well documented (Rosenstein and O'Daniel, 2008; The Joint Commission, 2008; Dang *et al.*, 2016).

Hegemonic relationships in health care abound with nursing, support service workers and patients, as well as CAM practitioners are all affected by this dysfunctional communication cycle (Coombs and Ersser, 2004; Orr, 2010; Rosenstein, 2017b):

> The relationships I have with all of the providers I described. I see no downsides and no problems. As long as everyone understands what they are good at. Something that is foreign to you creates a brick wall to wanting to work with that kind of provider. There is not the literature in that kind of treatment. If you are willing and open to working with them (the CAM provider) that what makes the interaction work. MD

> *"I think the culture of an MD being the top dog in medicine at my location holds positive relationships back. I'm practicing in a very conservative location. If some of the M Ds wanted to break the mold of physician being the top dog, but the culture holds it in place. I have a doctorate degree, but I'm not respected as a doctor. I'm seen as a mid-level provider. Even though I have completed a residency similar to my MD peers. The residency in my area of expertise (this ND has a specific specialty). ND*

> *An integrative approach is when you are truly communicating. Otherwise it gives the illusion of being an integrative approach. Only through that communication will each discipline understand what each other does. I need to intimately understand what they are going to do. If I don't really understand, the benefits and the potential side effects, I'm not going to be able to treat and support my patient, I wouldn't be able support the interactions or side effects that the patient may encounter and I wouldn't be able to talk to the patient in an educated way unless I truly understand both sides. ND*

Recommendations

Historically, health professions have defined themselves by their treatment modalities such as pharmaceutical medicines, surgery, spinal manipulation and homeopathic remedies (Herman and Coulter, 2015; Eisenberg *et al.*, 1993; University of Rhode Island, Pre-Health Professions Advising, 2019). This simple way of sorting and identifying professions by the prima facie impression of what remedies they have on the shelf, as it were, is giving way to a deeper understanding. The modalities of treatment around various models of medicine are blurring (Herman and Coulter, 2015; Louise, 2000), creating serious problems with defining how each of the professions are differentiated and unique (Herman and Coulter, 2015). DOs recommend acupuncture; MDs and DOs both instruct patients to take nutritional supplements and in some states/provinces, naturopaths prescribe antibiotics. These various models of medicine diverge in their philosophy around healing and treatment. This paper is not attempting to test the various models of medicine, but to engage the reality that various philosophical approaches to medicine have differing levels of meaning for patients. It is in the "meaning for patients" where there is opportunity for these models to more seamlessly meet the needs of those seeking care. Health-care leaders can focus on the patient's experience as a mechanism to institute and drive change.

Both sides of the care continuum need some adjustment to become more collaborative and integrative in approach:

For Biomedical Practitioners:

- stronger emphasis in biomedical medical schools on the history of medicine and how various ontological, epistemological and philosophical orientations drive different practice models;
- in terms of practice, recognizing that there are various ways to approach a problem and that concurrent use of mind-body therapy with other types of approaches may well be beneficial;
- respect for different approaches and the people offering those approaches; and
- pressure should be applied to the industry associations and societies to recognize the differing approach, relative value and need for licensing of the naturopathic professionals.

For Naturopaths:

- greater depth of education around research methodology in naturopathic medical schools so that their holistic, systems approach to healing can be better understood, researched and supported;
- implement a systems based research approach to better address the underlying professional approach and philosophy; and
- the curricula of the field need to have equal emphases on mechanisms as they do on ontology.

As "underdogs", naturopathic practitioners must be able to speak "biomedical" as well as their own scientific language.

Organization development strategies

From an Organization Development perspective, health-care leaders can use an interventional strategy that will differ by level (individual, group and organizational). The question of integration of practice is no different. However, adding a level for discipline-level to address the wider field of medicine would be a requirement to drive true partnership.

Discipline-level interventional strategies

Leaders within professional associations, governmental education funders and regulatory bodies in the biomedical and naturopathic fields (AMA and AANP) should work with an *appreciative inquiry process to understand the strengths and opportunities* present in partnership between these differing types of medicine. Synergies should be focused to develop a model that addresses financial outcomes, patient outcomes, legislative opportunities and communication opportunities. Identifying synergistic, positive outcomes for various approaches to practice will create new and potentially never-before considered possibilities for the future (Cooperrider and Whitney, 2001).

Use knowledge management techniques by establishing research partnerships and to share practices from successful integrative relationships across the field of medicine. Positive deviance techniques (Herington *et al.*, 2017) offer potential to make this kind of transmission of success possible.

Organizational level interventional strategies

Ensure healthcare organizations, such as hospitals and insurance companies and leaders within those organizations, have clear *integrative and inclusive vision-mission-practice*

alignment developed through sound strategic planning. Establishing a vision for how organizations would like to evolve, setting goals for that evolution and enacting clear tactics to step into that reality creates a realistic opportunity for change to actually occur.

Use *appropriate organizational cultural measurement tools* to assess resistance to change, openness of organizational culture and questions of status and authority. Then, deploy interventions related to assessment results that address institutional level problems. Using a mechanism to understand the barriers and enablers for change present in a culture, health-care leaders can look at exactly how their culture needs to evolve to support integrative practice.

Develop a team-based care environment through the use of *team building assessments and resultant interventional processes*. By establishing collective and interpersonal trust in a group, health-care leaders can begin an integrative process to develop real teams (Costa *et al.*, 2017).

Develop robust *conflict management processes* to address workplace issues of respect and super-ordinate goals of patient well-being. Healthcare leaders should develop processes for dispute management as a mechanism to build a successful organization. Change can bring forward conflicts. By proactively creating a mechanism to resolve issues, organizations will be better equipped to cope effectively with expected fall out.

Group-level interventional strategies

Health-care leaders within established health care practice units should develop a team-based care environment through the use *roundtable patient-care conferences*. Driving the team-based ideas into the patient care arena is the ultimate goal. It is at this level that actual synergistic practices will emerge in multiple disciplinary management groups (Saghir *et al.*, 2014).

Healthcare leaders should provide *routine training on interpersonal skills and communication*. As Saghir *et al.* (2014) concludes, "special training of multidisciplinary teams (MDT) led to better team dynamics and communication, improved patient satisfaction, and improved clinical outcomes" (p. e. 461).

Healthcare leaders can implement *dispute-resolution processes within the group/department*. Multidisciplinary teams tend to have more conflict than singularly focused disciplinary teams for a variety of reasons (Jones, 2006). Training aimed at helping groups manage those differences in productive ways will lessen individual concerns over boundaries and thus lead to greater collaboration and synergy.

Health-care leaders can take an *appreciative approach* in working with various practitioners and understand their value-add to each patient encounter and to develop innovative solutions to patient problems (Richer *et al.*, 2009).

Individual-level interventional strategies

Individual-level interventional strategies cannot be recommended without the presentation of a specific set of issues to define the nature of the problem. However, issues would likely be individual manifestations or responses to the larger issues within the discipline, the organization or the specific group. Thus, the solution may be to develop an individual level intervention based on the solution for a different level's intervention.

Interestingly, many other scientific communities have long ago made the leap from reductionist to systems thinking, both in practice and research. Medicine, in its broadest sense, is one of the most important human pursuits and needs to make this transition.

This exploratory study comes with certain limitations, including focus on a singular heterodox profession in a pantheon of many, a small sample and a North American focus. However, the study does begin the broader dialogue around truly integrative medicine, and it leaves room for future study, including broadening the scope of professions, broadening the geographic considerations and cultural considerations surrounding the care of human beings.

Note

1. Complexity is considered a measure of the unknown. Complex systems are those which the dimensions of the variables, or even the variables themselves, are not known. These are to be distinguished from complicated systems, since in merely complicated systems the diversity of the systemic variables and their dimensions are known. Atlan (1979) writes, "Complexity is thus a measure of lack of information and thus renders it more difficult for us to form pertinent ideas of the organizational realities we enact and which can impinge upon us" (quoted in Ramírez 1996, p. 237).

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