

Treatment Adherence, Compliance, and the Success of Integrative Functional Medicine

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What do we know about the state of US health? It's a special area of research that is the purview of a group called the US Burden of Disease Collaborators. In 2018, they published a comprehensive report in the *Journal of the American Medical Association* (JAMA) covering the years 1990 to 2016. This state-by-state assessment revealed that the greatest burden of disease, injuries, and risk factors all linked to obesity, poor diet, and elevated blood pressure and blood glucose.¹ When the Global Burden of Diseases, Injuries, and Risk Factors was updated in 2019, the mean average life expectancy at birth in the world had increased from 67.2 years (in 2000) to 73.5 years (in 2019).² One year later, of course, a novel variable had been introduced that saw health researchers examining data through a new lens: COVID-19. As the pandemic spread and data models were developed to track it, it soon became clear that individuals who were most seriously impacted by SARS-CoV-2 infection included those with reducible lifestyle factors, such as obesity, hypertension, insulin resistance, and chronic inflammation, as well as people affected by social determinants like poor nutrition, isolation, and reduced access to health care.³

To gather their data, the US Burden of Disease Collaborators assessed patterns of health. If we look at the most prevalent diseases, what is revealed? In short, they all result from the interaction of an individual's genes with their social and physical environment, lifestyle habits, diet, and behavior.⁴ Philip Pizzo, MD, is a distinguished faculty member at Stanford University. In 2020, he published a viewpoint piece in JAMA with the following title: "A Prescription for Longevity in the 21st Century: Renewing Purpose, Building and Sustaining Social Engagement, and Embracing a Positive Lifestyle." Dr. Pizzo wrote about the aging of the population and shifting demographics that could influence health outcomes for decades to come. He specifically focused on the role of physicians and other clinicians in supporting the longer lives of the patients they serve. Ultimately, the message Dr. Pizzo imparts is a positive one: "Having a purpose, seeking social engagement, and fostering wellness through positive lifestyle choices are important in reducing morbidity and mortality and improving the life journey."⁵

There are numerous controlled studies that demonstrate the positive health outcomes associated with the implementation of a lifestyle approach, including the impacts of eating a Mediterranean-style diet, increasing activity, reducing stress-inducing behaviors, and consuming more plant-based foods that are rich in phytochemicals.^{6,7,8} In a clinical setting, an Integrative Functional Medicine

operating system represents a methodology for the implementation of personalized lifestyle intervention programs. Despite the availability of clinical training programs and tools, as well as evidence that the burden of chronic disease can be reduced, widespread adoption of Functional Medicine has been incremental over the last 20 years, and global populations have yet to reap the benefits.

There are many variables that can affect health outcomes, including one that I have been interested in since the early 1990s: behavior change. In 1982, a seminal textbook was published under the title *Adherence, Compliance and Generalization in Behavioral Medicine*.⁹ The book examines a key question: What is the difference between adherence and compliance? Adherence, it turns out, is more participatory, while compliance is more enforced. In essence, adherence is related to an individual's belief that something is of value to them, whereas compliance is a response to a command. When the words are presented in this kind of context, their significance to the patient's health journey becomes very clear.

If reduction in the burden of disease is directly related to an individual's willingness to adopt positive lifestyle and behavior changes, then it makes sense for practitioners to develop a toolkit that encourages adherence rather than rely on prescriptive programs focused on compliance. In 2018, the American Academy of Family Physicians (AAFP) published guidelines for evidence-based strategies that can help patients achieve positive health behavior changes. These eight techniques include:

1. Assess the individual's readiness to change
2. Establish SMART [Specific, Measurable, Attainable, Relevant, Timely] goal setting based upon what the individual is interested in and willing to do
3. Write a written plan for the program
4. Focus on small incremental changes over time
5. Identify a support system for reinforcement of the changes
6. Implement regular and routine evaluation of progress
7. Implement daily time for rest and reflection
8. Provide benchmarks for celebration of achieving incremental goals¹⁰

The Functional Medicine model is structured to incorporate concepts like those recommended by AAFP to encourage the adoption of positive health behaviors. In clinical studies of this model that involved thousands of patients, outcomes research has demonstrated marked improvement in patients with diverse chronic health

problems at significantly less cost than traditional compliance-based approaches.¹¹⁻¹³ In recent years, various studies have also demonstrated that the use of wearable health and fitness assessment devices may further reinforce adherence to positive lifestyle and behavior changes.^{14,15}

This background serves as an introduction to a feature in this journal issue called “Treatment Adherence in Integrative Medicine,” which consists of a literature review and a survey of practitioner insights prepared by members of the Integrative Medical Advisory (IMAT) and Insights teams at Fullscript. Fullscript is an industry-leading health technology platform that facilitates virtual dispensing for practitioner-grade supplements and develops evidenced-based clinical research and educational content to the rapidly emerging field of integrative medicine. This timely and very important work on adherence-related issues in health care is essential reading for practitioners. An outline of practical strategies is provided, as is excellent data about adherence dynamics in a variety of clinical settings. It turns out that Integrative Medicine practitioners may have an advantage in improving patient outcomes not only because they tend to utilize cooperative communication styles, but also as a result of their ability to align a patient’s belief system to the basic tenets of Integrative and Functional Medicine.

In summary, I will share some personal thoughts about adherence that have been shaped by experiences and input I have collected over the course of my 40-year career. Perception is the starting point of any therapeutic encounter. Among patients, Integrative and Functional Medicine-based therapies are often considered natural and consistent with the basic principles of health, whereas pharmacological therapies can be perceived as non-natural and potentially hazardous. Additionally, Integrative and Functional Medicine treatment approaches are amenable to group engagement due to a philosophy of collaboration that is inherent in these models of health care. This represents an important point of distinction that separates a successful adherence strategy from the primacy of a singular practitioner-practitioner relationship, which can target compliance.

Functional laboratory testing also plays an important role in the implementation of the Integrative Functional Medicine model. Use of functional testing allows practitioners to quantify improvements in health metrics throughout a treatment program and contextualize this information for patients. This ongoing data and dialogue may create a positive reinforcement cycle that supports adherence and increases longer-term health benefits. Another aspect related to adherence in the Integrative Functional Medicine model is the lower expenses associated with the application of a lifestyle and behavior program, especially when achieved through the use of insurance-reimbursable group visits and health coaching via telehealth.

All of the tools that are associated with the unique characteristics of a well-managed Integrative Functional Medicine practice can increase patient adherence. Far from

casting the patient as a victim in need of saving, they are designed to empower people to feel a sense of ownership and agency about their health. This is a proactive stance that can shift a patient’s psychology during treatment and beyond in positive ways that may influence their long-term outlook.

Health is created one person at a time. By identifying the historical barriers to adherence and giving them full consideration, a successful clinical practice that stimulates patient engagement can be created. Personalized lifestyle medicine programs that are designed to manage the reducible factors associated with chronic disease represent an opportunity to reverse the negative health trends that contribute to both morbidity and avoidable premature mortality throughout the world.

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