Perspective

Why Do Yoga Research: Who Cares and What Good Is It?

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Although IAYT's publications include both original research and summaries of research published in other peer-reviewed journals, the question of why we should be involved in research on Yoga in the first place is a valid one. Full-time research on Yoga or Yoga therapy involves substantial resources both in labor and in costs. For example, a small Yoga therapy clinical trial grant from the National Center for Complementary and Alternative Medicine (NCCAM) of the National Institutes of Health (NIH) requires substantial involvement of trained scientists and Yoga instructors and can cost the taxpayer over a half-million dollars. Yet all of this cost and effort will yield but one small publishable preliminary study. These resources might easily be devoted elsewhere for the public good, perhaps through providing more Yoga classes to underserved populations.

One rationale for Yoga research is that it can be used to boost the prestige, profile, and ultimately the popularity of Yoga through resulting media coverage. This strategy is actively employed by a number of Yoga organizations and individuals. However, Yoga appears to be prospering just fine without this particularly expensive marketing strategy. The current popularity of Yoga is unprecedented, with a recent survey revealing that 7.5% of the population is practicing Yoga.[1] Yoga is widely revered as a practice associated with health and well-being, and is even being widely used by the advertising industry to sell consumer products.

Perhaps a stronger rationale for Yoga research is from the perspective of the Public Health Service, the watchdog agency responsible for public health. In the face of the burgeoning use of complementary and alternative medicine (CAM) and Yoga therapy, this rationale has been succinctly stated by NCCAM: "Despite their potential, untested CAM therapies may have unintended negative consequences. They may interfere with or displace effective treatments…and they may absorb resources that might be better invested in more appropriate treatment. Thus, it is critical to evaluate widely used CAM treatments for both safety and efficacy..."[2]

However, I see a stronger rationale and one more appealing to those of us committed to the promotion of Yoga. Despite its popularity, Yoga has been largely restricted to narrow segments of the population. Demographic analyses from some of the U.S. Yoga surveys have shown a clear skewing in favor of higher incomes, higher education, white-collar occupations, and middle-aged or young adults. There is also a strong gender imbalance favoring women (about 3:1) and an uneven geographical distribution in the U.S.[1,3]

This demographic disparity in Yoga practice has been addressed by a number of noble and worthy grassroots efforts that are providing Yoga classes to underserved populations who would not ordinarily have access to Yoga instruction. Examples of these kinds of initiatives include the Diversity Program at the Kripalu Center for Yoga and Health, the Yoga for Youth program for at-risk youth, and the Yoga Ed program for elementary school children. However, it is unlikely that these initiatives will fully penetrate the demographics of the population sufficiently to result in a truly widespread use of Yoga.

A viable solution to this problem is to imbed Yoga into systems in society that already penetrate the entire population. There are two such systems: the education and the healthcare systems. However, the popularity of Yoga and anecdotal evidence of its benefits are insufficient to facilitate the incorporation of Yoga into these systems. Carefully designed and executed research studies that convincingly validate its physical and psychological benefits will be required before it can be broadly applied to a large number of populations (children, the elderly, patients, etc.) and institutions (hospitals, schools, offices, etc.). A CAM study confirmed that

"…the primary obstacles to incorporating CAM into mainstream healthcare were the following: lack of research on efficacy [and] uncertainty that offering CAM is profitable or that research demonstrates cost-effectiveness…"[4] Although some research exists for Yoga, much more is needed.

It is indeed possible to imbed a health/wellness behavior into our society as a widespread practice. Consider the example of the universal adoption of dental hygiene. The daily practice of brushing and flossing one's teeth is fully accepted by, integrated into, and taught and promoted in both the educational and healthcare systems. We are all taught dental hygiene in elementary school. It is in fact a part of who we are as a society—every household has a toothbrush and everyone carries one with them when they travel. Another evolving example is sleep hygiene, the recognition of the need for quality and quantity of sleep. Biomedical sleep research is providing strong support for the implementation of sleep hygiene in school children and the general population, the NIH is promoting sleep research, sleep disorders centers are proliferating, academic divisions of sleep medicine are appearing, and sleep medicine is beginning to be taught in medical schools. Research has put sleep hygiene on the slow road to widespread implementation.

Contrast this to what I will call "mind/body hygiene." Mind/body practices such as Yoga and meditation are not taught routinely in school systems or prescribed by doctors. Current physical education promotes competitive sports and focuses on exercise to develop muscle strength and cardiorespiratory endurance. Psychological health education is even less apparent, and problems are addressed with verbal/expressive techniques requiring trained counselors. We are a society raised without the most effective self-care/preventive techniques necessary to deal with stress, emotion, attachment, grief, tension, and the wide array of associated physical symptoms. Consequently, we are burdened with relatively high levels of dysfunctional attitudes, maladaptive behaviors, distress, and mood disturbance, as well as a lower sense of well-being and impaired quality of life—all of which can lead to or exacerbate medical and psychiatric conditions.

Those of us actively involved in a personal Yoga practice, instruction, and Yoga therapy believe that widespread practice would have a deep positive and transforming impact on the physical and psychological health of society as a whole and reduce the high economic burden of our healthcare system. We know from our personal experience and a reasonable body of scientific research that it can improve behavior, performance, and mood, and mollify negative behaviors such as aggression, violence, and crime. As an adjunct/complementary self-care medical treatment, it has enormous potential to cost-effectively treat disorders that are often treated superficially, symptomatically, and ineffectively with drugs and surgery.

Yoga research will ultimately provide the basis and the support for incorporating Yoga-based practices into our schools and into our healthcare system. Granted, this will take time as we await the necessary critical mass of Yoga research and replications of these studies by different investigators in different institutions on different populations in different settings. Unfortunately, Yoga research is facing clear challenges. Currently NIH is funding fewer than a dozen major Yoga research grants. Grant review by conventional allopathic medicine researchers and recent NIH-wide funding limitations have made Yoga research grants hard to get. Alternatively, private philanthropic funding of Yoga research is a potential for stable support worth exploring. Hopefully, we will see the continuation of the recent dramatic growth in Yoga research.[5]

References

1. Yoga Journal Releases "Yoga in America" Market Study; Press Release 2/7/05; *http://www.yogajournal.com/about_press020705.cfm*
2. Expanding Horizons of Healthcare, Five-year Strategic Plan 2001-2005, National Center for Complementary and Alternative Medicine, US Department of Health and Human Services, PHS, NIH, 9/25/00, NIH Publication No. 01-5001.
3. Birdee GS, Legedza A, Phillips RS. Characteristics of yoga users in the United States: results from a national survey. *Journal of General Internal Medicine*. 2007;22: Supplement 1:35, (Abstract).
4. Pelletier KR, Astin JA. Integration and reimbursement of complementary and alternative medicine by managed care and insurance providers: 2000 update and cohort analysis. *Alternative Therapies in Health and Medicine*. 2002;8:38-48.
5. Khalsa SBS. Yoga as a therapeutic intervention: a bibliometric analysis of published research studies. *Indian Journal of Physiology and Pharmacology.* 2004;48:269-285.

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