

Yoga: Perspectives on Emerging Research and Scholarship

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Yoga is at the forefront of complementary and supportive mind and body therapies. It is receiving widespread attention from scientists, funding agencies, the media, and the public as a means of health promotion and disease prevention. Colleges and a few K-12 schools now include yoga study and practice as a part of standard curricula. Also, widespread use is reflected in the 2012 “Yoga in America” survey, which estimates that 20.4 million people in the U.S. currently practice yoga [1]. This increasing public awareness, along with the demand for information on the safety and efficacy of yoga and the unfolding scientific evidence of its potential efficacy in a number of chronic diseases, are among the driving forces behind the National Center for Complementary and Alternative Medicine (NCCAM) identifying yoga as one of the mind and body interventions considered a high priority topic for research funding [2]. The heightened interest by NCCAM makes this a critical time for those interested in yoga research and yoga therapy research (yoga/yoga therapy research) to think more critically about the need for standards and methodological guidelines for studies using yoga as an intervention.

NCCAM, like other NIH institutes and federal agencies providing support for research, requires that researchers use rigorous, innovative approaches to establish evidence-based interventions that have real-world application [3]. Thus, many of the funding opportunities are likely to be directed toward focused, well designed, rigorous research with potential for translation into practice. This is particularly important when the goal is to bring about changes in health behaviors given the limited amount of rigorous research data that currently exist on the influence of yoga and its components on human behavior.

While longitudinal, randomized, controlled trials (RCTs) are the gold standard of research, at this time there are likely very few researchers/research teams who have the needed preliminary feasibility data from studies to move forward with an RCT. This is because an RCT design must be sound in all dimensions. The choice of an active control group for a trial must be logical, reflecting the hypothesized mechanism of yoga for the particular study. Guidelines and research strategies, including procedures, must be detailed and comprehensive, yet clear, concise, and consistent. The research must be easily understood and replicable, requiring that authors report study details such as rate and pattern of breath work, specific mindfulness techniques, the specific postures, posture durations and number of repetitions of each posture, as well as postural alignment. Any modifications made to the foregoing components need to be clearly described, including rationale for the modifications. Even the time of day and temperature of the room are important in the replication of a study because these too can affect the functional outcomes achieved. Study results will need to be translatable into practice if we are to bring about change in human behavior. To date, many yoga/yoga therapy studies do not meet the most basic of these requirements. Thus, unless guidelines are established and research strategies are clearly defined, study findings cannot be compared and most likely cannot have the needed public health impact. In the current health care climate, every dollar spent on research is scrutinized. Thus, yoga/yoga therapy research that is not translatable into symptom reduction, decreased health care resource use, or cost savings will be replaced by modalities that do demonstrate real-world impact.

It has been suggested by others that, in the common quest to improve the health of the Nation, yoga practitioners and researchers face issues, including the view that the scientific approach is too reductionist—that is, the isolation of yogic components compromises the essence of yoga and its effects [4,5]. Many scientific researchers maintain that reductionism is necessary to determine the mechanism and effects of yoga. Regardless of these disparate philosophical approaches, evidence of the efficacy of yoga continues to grow anecdotally and through beginning research efforts. Ideally, those interested in yoga/yoga therapy research would be well versed in both research and yoga/yoga therapy; however, this often is not the case. Both researcher and practitioner need to develop an understanding of the objectives and requirements of the other; taking advantage of the expertise of each to advance collaborative efforts [4,5]. The importance of the research and yoga communities joining forces for the advancement of health science was highlighted at the recent Symposium on Yoga Research (SYR) and the Symposium on Yoga Therapy and Research (SYTAR) [6,7]. Presentations at the SYR included an overview of an NCCAM-funded R01 project to develop a translational instrument directed toward establishing a standard taxonomy and measure [6]. The goal for this instrument is that it be used across yoga studies, thereby enabling comparative analysis. A panel discussion at the SYTAR emphasized the need for researchers to develop an understanding of the differences between yoga research and yoga therapy research. Panelists also discussed the potential benefits of identifying particular “styles” of yoga and the application of the different styles to symptom management in specific chronic diseases and/or health promotion strategies. The differences in developing therapies for a particular chronic disease population as compared to the development of a therapeutic approach for an individual were also discussed [7].

While the complexities of yoga research are recognized by most researchers, evidence of yoga efficacy and its potential to empower individuals toward symptom self-management is only beginning to accumulate. As the Nation’s health care resources continue to dwindle, many researchers, health care professionals, and yoga practitioners recognize that the developmental struggles we are experiencing presently are worth the time and energy needed to advance yoga science. While few can argue with the need for health promotion, those who work with chronically ill patients realize that symptom management is

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key to future models of care delivery for chronically ill populations [4]. The fact that yoga lends itself to independent practice and symptom self-management has advanced it to the forefront of complementary and supportive care therapies research. As we seek effective methods to address today's complex health care issues and challenges, yoga is emerging as a mind and body therapy with the potential for significant public health impact. Nowhere is this more recognized than within the Contemplative Sciences Center (CSC) at the University of Virginia. The CSC, made possible by a generous donor, brings yoga and all of its potential to the University's schools and departments, faculty members, students, and community practitioners of contemplative sciences (For more information about the University of Virginia CSC, visit the CSC Website at <http://uvacontemplation.org/>).

Until a structured, uniform approach to yoga research with standards and guidelines exists, communication barriers within and across the research community are likely to continue, sound research methodologies will continue to elude us, and research results are likely to have minimal impact. Also, interpretation and replication of studies will remain problematic. Guidelines can be developed best through collaborative efforts of yoga/yoga therapy researchers and yoga/yoga

therapy practitioners. Working in harmony for the greater good, practitioners and researchers can develop the necessary methodological rigor for research studies while staying true to the essence of yoga [4,5]. Regardless of the complexities involved in yoga/yoga therapy research, now is the opportune time for those interested in advancing yoga in the health care sciences to come together to develop a scholarly perspective on research related to this ancient practice-yoga.

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