

## Chapter 9

# Standards in Yoga Research and Reporting

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### ABSTRACT

*Yoga research is growing rapidly in volume and rigor but varies in sample size, study design, and reporting transparency. Yoga professionals may not be versed in the current research due to a lack of research literacy and may not be well positioned to discern research relevance and quality. Research literacy is necessary to apply research in yoga teaching and therapeutics. Research is part of evidence-informed practice, along with clinical experience and client preferences, and is aligned with concepts from yoga philosophy. Several strategies are available to improve research literacy and evidence-informed practice for yoga professionals, which can help to expand inter-professional collaboration and inform the trajectory of yoga research toward better alignment and application to clinical practice. Yoga research reporting guidelines will improve transparency in research dissemination for application to practice, policy, replication, comparison, and summarization.*

### INTRODUCTION

Yoga practice is increasing worldwide. In some countries, practitioners have more than doubled in the last decade (Clarke et al., 2015) and worldwide prevalence is estimated at over 300 million individuals (Montigny, 2018). As the use of yoga expands worldwide, there is a corresponding expansion in the diversity of those who practice yoga. For example, older persons and clinical populations are two groups in which yoga practice is increasing (Clarke et al., 2015). This trend is in a cyclical relationship with yoga

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research. As more individuals begin to practice, the need for research that verifies its safety in diverse populations also grows. Reciprocally, as research evidence grows regarding the potential effectiveness of yoga for prevention or management of various health conditions, the prevalence of participation increases. In response, published yoga research has grown exponentially in recent decades (Jeter et al., 2015). And while yoga appears to be incredibly safe in clinical trials (Cramer et al., 2015), the rate of yoga injuries is growing (Swain & McGwin, 2016). This disconnect may be in part due to the increase in yoga use by older and clinically complicated populations, while the training of yoga teachers worldwide remains focused on teaching relatively young and healthy students. Those delivering yoga in clinical trials, in contrast, are utilizing protocols developed specifically for a target population. The apparent disconnect may also be due to the high risk of bias in yoga research (Cramer et al., 2015).

The need for yoga that is safe and appropriate for diverse populations has been met by the rise in both yoga therapy and accessible yoga. Yoga therapy, while ancient in its origins, has become more codified and professionalized in recent years, including the establishment and growth of the International Association of Yoga Therapists (n.d.), which has developed training competencies, credentialing of schools and professionals, codes of conduct and a scope of practice for the field. Accessible Yoga (n.d.), conversely, is a grassroots movement to foster awareness and access to yoga spaces, teachers, and practices by anyone, regardless of physical ability, mental health status, or demographics. Unfortunately, little research has been done to examine whether the practices of yoga therapy and accessible yoga in real world settings parallels the practices that have suggested safety and acceptability in the growing body of yoga research.

The objectives of this chapter are to first identify the known challenges of bias and research literacy surrounding the current body of yoga literature. Second, these challenges are addressed more specifically within the context of study design, research reporting, and Evidence Informed Practice (EIP). Finally, solutions and recommendations are made to advise on the role the yoga research community might play in improving future yoga research and evidence informed practice.

## **BACKGROUND**

While the yoga literature has expanded rapidly in recent years, it continues to suffer from important weaknesses. Yoga research is subject to a few inherent methodological biases that are worthy of consideration when conducting studies, reading the literature, and applying it to clinical or policy decisions. One chief concern in designing a yoga study is avoiding selection bias. When researchers recruit participants for a research study, the very fact that it's a yoga study will likely influence who might choose to participate. Yoga studies may attract people who would be likely to try yoga anyway, those who have prior experience with yoga, those who perceive yoga as within their capabilities, and those who believe they would feel welcome in a yoga space. This could lead to study samples that are younger, more mobile, and less diverse than the clinical population of interest. Observational studies that gather information about people who are already practicing yoga will also suffer from such biases. Efforts should be made by research teams to recruit diverse study samples, perhaps even with oversampling of underrepresented demographic groups, and comparisons should be made between study samples and the larger population to better understand the potential generalizability of study findings.

Another form of bias that impacts the yoga research literature is reporting bias. This happens when the information provided in the published manuscript is incomplete or misleading and it can occur by intentional omission but more often it likely occurs by oversight. An example is that many yoga studies

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