

Using Research

## **Description**



In this lesson, we explore different types of research and key considerations for evaluating and using research on the impact of yoga.

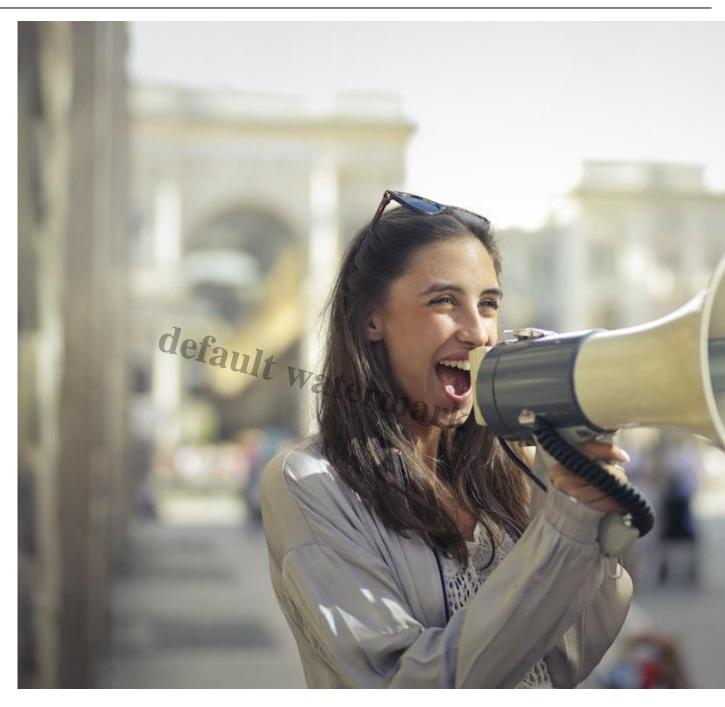
### **Objective**

Explore different types of research, considerations in evaluating it, and potential impacts of using research in your study, teaching and marketing.

#### **Description**

Explain how awareness of research that involves yoga can help you and your teaching. Describe how you can use yoga research to reach more students and make a bigger impact with them. Define â??clinical trial.â?• List and define different types of research. Note details of the study approach that can lend important insight to the results. While randomized control trials have often been labeled the â??gold standardâ?• in research, describe their limitations and the risk in â??glorifying RCTs above other approaches.â?• Explain several vital points about the unique considerations related to the publishing of yoga research. Explain how you can more easily access and share research in your business and teaching.

## Research is Significant & Makes an Impact



Awareness of some of the research that involves yoga can help to:

- 1. Motivate you and inform your approach.
- 2. Reach more students and potentially make a greater impact with them.
- 3. Make a bigger impact in your marketing and teaching.

## **How it Can Inform Your Approach**

Research can inspire and motivate you personally or professionally.

And it can offer you specific guidance. Research has shown, for example, that an adaptive, individualized approach to yoga is effective at lessening arthritis symptoms. So if a student who has been attending a fast-paced or large group vinyasa class finds she can no longer practice due to arthritis or has had a lack of success in addressing arthritis symptoms, the research can inspire you to help the student find a better-suited practice situation.

## **How It Can Help You Reach More Students**

Most people respond positively to research. Many people receive an extra boost of motivation when they learn about research showing successful results.

Whether from personal interest or social influence, people tend to believe anything that has the word a??researcha?• associated with it.

## How it Can Help with Business & Teaching

You can cite research in your general marketing materials: your website, social media, bio, etc.

You can cite it as support for marketing for particular offerings, such as a workshop on yoga for low back pain or yoga for cancer survivors.

And you can cite related research any time you teach. You can note the effects of yoga on brain health or stress relief, on mental health or on low back pain. You can pick a different research finding for every day of the week if you want!

## **Types of Research**



## **Various Types of Research**

Some of the types of research youâ?? Il come across are:

- 1. A review of existing research a?? This a??study of studiesa?• is a review of all the research done in a particular time period that can contribute any insights on the subject at hand.
- 2. **Qualitative studies** â?? A gathering of information (often from a relatively small number of cases) in order to gain insight about the subject at hand, typically for the purposes of determining if more research is desirable and what needs investigation. While qualitative research is for gathering information, quantitative research seeks statistically significant results in order to generalize the results to a wider population and to make predictions. (source)

3. Controlled clinical trials â??A â??clinical trialâ?• means to study the effects of a medical intervention, as in yoga or meditation, for example. (NIH) â??Controlledâ?• means to compare a group receiving an intervention with another group that does not. In the case of a randomized control trial (RCT), an additional protocol is instituted to minimize bias by randomly assigning participants to the intervention or control group.

While RCTs have often been labeled the â??gold standardâ?• in research, Tom Frieden MD specifically explains their limitations and impracticality <a href="here">here</a>, advising against â??glorifying RCTs above other approaches, even when these other approaches may be either superior or the only practical way to get an answer.â?•

## **Study Approach**

Knowing these details of each study you cite can lend important insight to the results:

- Sample size a?? A study might be with 12 people or with 3,000 people.
- **Sample diversity** a?? A study might be targeting only people with diagnosed anxiety disorder or it might be a diverse sample of people new to yoga, for example.
- **Time frame** a?? A study might last 2 weeks, 3 months, or a year or more. a??Longitudinal studiesa?• continue over a long period of time (months, years or decades).

#### **RESEARCH APPROACHES**

A large and diverse group of participants makes it more likely that study findings can be generalized, meaning that they might apply to the general population and not solely the people who participated in the study. (This means not restricting a study population to just one type or group of individuals. For instance, all earlier cardiac med trials were done only on men, mostly white men, and those data do not generalize to womenâ?!

[In blind studies], the participants (and researchers if itâ??s â??double blindâ?•) do not know which group they are in (control or intervention). This is hard to do with an intervention like yoga, because it may be obvious whether you are lying down in savasana or doing some other type of activity (vs taking a medication or placebo pill, for example). â?? Rachel Lanzerotti

#### RCT NOT NECESSARILY A â??GOLD STANDARDâ? & OFTEN NOT PRACTICAL

Randomized controlled trials have long been held up as the â??gold standardâ?• of clinical research. Thereâ??s no doubt that well-designed trials are effective tools for testing a new drug, device, or other intervention. Yet much of modern medical care â?? perhaps most of it â?? is not based on randomized controlled trials and likely never will be. In this â??dark matterâ?• of clinical medicine, past practices and anecdotes all too often rule. We need to look beyond trials to improve medical care in these areasâ?¦

Despite their strengths, RCTs have substantial limitations. They can be very expensive to run. They can take many years to complete, and even then may not last long enough to assess the long-term effect of an intervention such as vaccine immunity, or to detect rare or long-term adverse effects. Findings from

RCTs may not be valid beyond the study population â?? a trial that included a high-risk population in order to maximize the possibility of detecting an effect, for example, may not be relevant to a low-risk population. RCTs may not be practical for population-wide interventions and often arenâ??t relevant for urgent health issues. For some public health issues, it isnâ??t ethical to conduct an RCTâ?!

Glorifying RCTs above other approaches, even when these other approaches may be either superior or the only practical way to get an answer, relegates patients to receiving treatments that arenâ??t based on the best available evidence. An approach that uses all appropriate evidence types and builds on the existing evidence base using proven best practices is the one most likely to result in clinical and public health action that will save lives. â?? Tom Frieden MD

## **Key Considerations with Yoga Research**





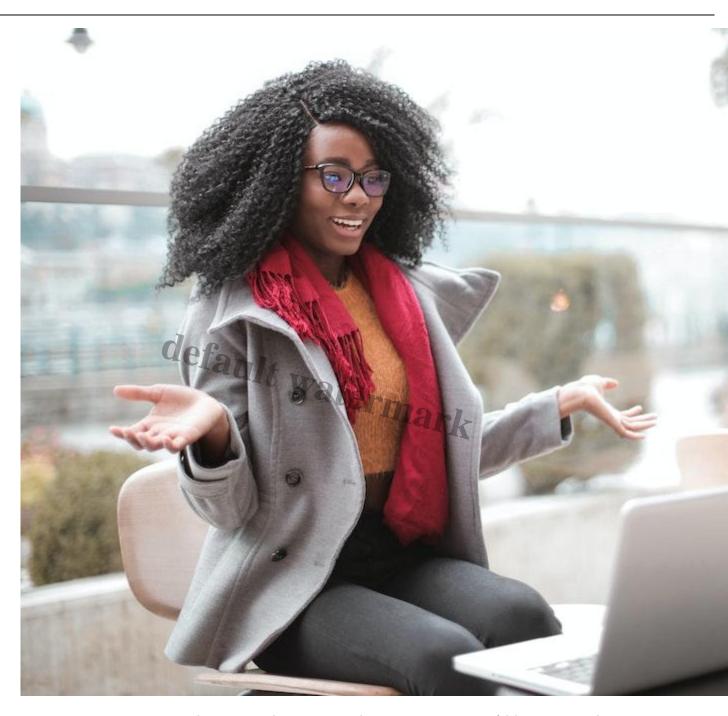
In this 9-minute <u>video</u>, Timothy McCall MD (author of Yoga as Medicine) makes several vital points about the unique considerations and challenges of published yoga research. He notes, for example:

- Medical research is primarily funded by pharmaceutical companies. Since yoga is an inexpensive intervention without corporate backing, it has been much more challenging to get yoga studies completed. However, despite this tremendous challenge, dedicated researchers have published a plentiful body of high quality research, including many studies using randomized control trials â?? the gold standard in research.
- Yoga treats the individual, not a diagnosis. This is, of course, a benefit in the real world, but research has often been conducted as a test of a drugâ??s effectiveness in reducing symptoms of a particular diagnosis. To research yoga using that same methodology would require thousands

- of separate studies for each individual diagnosis. But, again, despite this challenge, the research of yogaâ??s impact on a litany of conditions is plentiful.
- As an individual treatment, yoga might be used to target something like posture or stress relief, thereby improving overall health and the systemic â??terrainâ?• thereby preventing numerous diseases from developing. Rarely does research capture this tremendous benefit although research on inflammatory markers is an example of how it can.
- Pharmaceutical drugs have severe side effects and are even the third cause of death. Yoga, on the other hand, is safe without negative side effects. Therefore, without risk in using yoga as a treatment, it clearly isnâ??t necessary to have the same level of research as drugs that carry so much risk.

## Weâ??ve Made it Easy to Use





It can be time-consuming and frustrating find and verify the research youâ??re looking for, to quickly understand it, summarize it and make it accessible and applicable.

Weâ??ve worked hard to make it easy for you. Youâ??ll find:

- 1. Verifiable research organized by subject.
- 2. The title is a brief statement of the results so you can get a super quick sense for the study.
- 3. Also in the title is the year of the study.
- 4. Available for quick verification and further review: quick links to article commentaries and to the original published research.
- 5. Succinct synopsis with research protocol and significance of the findings.

## **Samples**

Here are a few samples of the format youâ?? Il find here. Compare this approach to typical articles that use a dozen paragraphs with lots of long names of universities and doctors and medical terms!

### Meditation reduced pain sensitivity (2011) link

- Brain scans demonstrated that mindfulness meditation can dramatically reduce sensitivity to pain â?? even more so than morphine.
- Published in the Journal of Neuroscience.

#### Randomized control trial: Decreased pain & fatigue in CFS (2014) link and link

- People with chronic fatigue syndrome who were a??resistant to conventional therapy.a?•
- Results after 9 weeks showed decreased fatigue.
- Some reported pain relief with no adverse effects.

# Randomized control trial: Helps low back pain link mark

• Article by Melanie Haiken, Yoga Journal includes results from a randomized, controlled clinical trial showing that yoga clearly helps those with low back pain.

## Reduced chronic low back pain as effectively as PT (2017) link and link

- 320 racially diverse and predominantly low-income people with chronic low back pain
- Specially trained yoga teachers taught gentle poses, study lasted one year
- Gentle yoga was just as safe and effective for reducing chronic low back pain as physical therapy.
- â??Participants in both the yoga and physical therapy groups were less likely to use pain medications at 3 months compared with the education groupâ?! Satisfaction and quality of life were similar between the physical therapy and yoga groups.â?•
- Conducted by Boston Medical Center researchers, with input from yoga teachers, doctors, and physical therapists.
- Learn more: <u>Guidebook and Teacher Training Manual for Boston Medical Center Program for</u> Back Pain

## Review of all randomized control trials published: Superior results with chronic neck pain (2017) link

- A team examined all of the published randomized controlled studies in which adults with chronic neck pain were assigned to either a yoga intervention or a control group
- Analyses revealed that yoga provides superior results to usual care in the relief of neck pain intensity and neck pain-related disability

• In addition, yoga group reported better quality of life and improved mood compared to controls. Short-term reductions in pain, disability, and negative mood were found for both movement-based, and meditation-based yoga interventions.

# Small qualitative study: Reduced pain & improved well-being in people with systemic lupus (2018) link and link

- In a??preliminary research, yoga showed qualitative improvements for women living with systemic lupus erythematosus (SLE)a?! Three research participants completed the eight-week (sixteen 60-minute sessions) study and reported positive outcomes, including reduced pain, increased relaxation, and improved general well-being.a?•
- The study was to determine feasibility of expanding the research. â??Three yoga teachers living with SLE were interviewed to offer input on adapting yoga to those living with lupus, such as including restorative postures, alternatives for challenging inversions, and cooling breath practices. Some of the key features of lupus are fatigue and pain, which are episodic when the disease flares.â?•
- Complementary Therapies in Medicine

## Randomized, single-blind, controlled trial: Carpal tunnel syndrome pain reduced (1995) link

- 42 individuals with carpal tunnel syndrome, ages 24-77
- Yoga group had statistically significant improvements for grip strength and pain reduction.

#### See Also

- Sensation & Pain
- · Working with Pain in Yoga
- About Chronic Pain
- Chronic Pain & Yoga

#### Category

1. Uncategorized