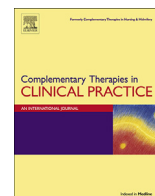




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Yoga research review

Tiffany Field ^{a, b, *}^a Touch Research Institute, University of Miami, Miller School of Medicine, United States^b Fielding Graduate University, United States

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ABSTRACT

This paper is a review of empirical studies, review and meta-analysis publications on yoga from the last few years. The review includes demographics/prevalence of yoga as a practice, bibliometric analyses of the yoga publications and the use of yoga for physical fitness and cognitive function. Most of the studies reviewed here involve yoga effects on psychiatric and medical conditions. These include pregnancy, prenatal and postpartum depression; stress, PTSD, anxiety, and obesity; cardiovascular conditions including hypertension; pain syndromes including arthritis, headaches and low back pain; autoimmune conditions including asthma, type II diabetes and multiple sclerosis; immune conditions including HIV and breast cancer; and aging problems including balance, osteoporosis and Parkinson's. The methods and results of those studies are briefly summarized along with their limitations and suggestions for future research. Basically yoga has been more effective than control and waitlist control conditions, although not always more effective than treatment comparison groups such as other forms of exercise. More randomized controlled studies are needed in which yoga is compared to active exercise groups. Having established the physical and mental health benefits of yoga makes it ethically questionable to assign participants to inactive control groups. Shorter sessions should be investigated for cost-effectiveness and for daily practice. Multiple physical and physiological measures need to be added to the self-report research protocols and potential underlying mechanisms need to be further explored. In the interim, the studies reviewed here highlight the therapeutic effects of yoga, a practice that could come to be called yoga therapy.

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Contents

1. Demographics/prevalence of yoga practice and bibliometric analyses of research on yoga	147
1.1. Yoga practice	147
1.2. Yoga safety	147
1.3. Yoga research trends	147
1.4. Comparison groups	147
1.5. Assessment methods	147
1.6. Studies on students (see Table 1 for brief summaries studies)	147
1.7. Grade school students	147
1.8. High school students	148
1.9. University students	148
1.10. Graduate students	148
1.11. Barriers to practicing yoga	148
2. Physical fitness, cognitive function and emotional well-being	148
2.1. Physical flexibility	148
2.2. Spinal mobility and muscle endurance	149

* Touch Research Institute, University of Miami Medical School, P.O. Box 016820, Miami, FL, 33101, United States.

E-mail address: tfield@med.miami.edu.

2.3.	Cognitive functioning	149
2.4.	Emotional well-being	149
2.5.	Prenatal yoga studies (see Table 2)	149
2.6.	Intensity and safety	149
2.7.	Beneficial effects	149
2.8.	Perinatal depression and anxiety	149
2.9.	Comparison treatment groups	150
3.	Stress and psychological disorders (see Table 3)	150
3.1.	Dentists and nurses	150
3.2.	Oxidative stress	150
3.3.	Posttraumatic stress disorder	151
3.4.	Anxiety and panic disorder	151
3.5.	Depression	151
3.6.	Overeating	151
4.	Cardiovascular conditions (see Table 4)	152
4.1.	Prehypertension	152
4.2.	Hypertension and blood pressure	152
4.3.	Cholesterol	152
5.	Pain syndromes (see Table 5)	152
5.1.	Arthritis	152
5.2.	Knee osteoarthritis	153
5.3.	Neck pain	153
5.4.	Headaches	153
5.5.	Premenstrual syndrome	153
5.6.	Low back pain	153
5.7.	Potential underlying mechanisms for pain reduction following yoga	153
6.	Auto-immune conditions (see Table 6)	154
6.1.	Asthma	154
6.2.	Chronic obstructive pulmonary disease	154
6.3.	Type II diabetes	154
6.4.	Multiple sclerosis	155
6.5.	Irritable bowel syndrome	155
6.6.	Chronic fatigue syndrome	155
7.	Immune disorders (see Table 7)	155
7.1.	Cytokines	155
7.2.	HIV	156
7.3.	Cancer	156
7.4.	Breast cancer	156
7.5.	Colorectal cancer	156
8.	Aging conditions (see Table 8)	156
8.1.	Mobility and gait speed	156
8.2.	Balance	156
8.3.	Sleep quality	157
8.4.	Osteoporosis	157
8.5.	Parkinson's	157
8.6.	Respiratory function	157
9.	Potential underlying mechanisms	157
10.	Limitations of studies and future directions	157
	Acknowledgements	158
	References	158

This paper is a review of empirical studies, review and meta-analysis papers on yoga that have been published over the past years (since our last review in 2010) [1]. The term yoga was entered into Pubmed and the selection criteria were empirical studies (single arm, randomized controlled) in which standard treatment, waitlist and treatment comparison groups were compared to yoga groups (of different styles). Systematic reviews, bibliometric analyses and meta-analyses are also included. Exclusion criteria were case studies, qualitative studies, small sample pilot studies and studies in which assessors were not blind. The review includes 2 surveys, 23 single arm trials, 52 randomized controlled trials, 11 systematic reviews and 7 meta-analyses.

Included are brief summaries of papers on the demographics/prevalence of yoga as a practice, bibliometric analyses of the yoga

publications and the use of yoga for grade school, high school and university students as well as for yoga practitioners. The majority of the studies reviewed involve yoga effects on psychiatric and medical conditions. The methods and results of those studies are briefly summarized along with their limitations and suggestions for future research. The psychiatric conditions include prenatal depression, stress, anxiety, posttraumatic stress disorder and eating disorder. The medical conditions include prematurity, cardiovascular (hypertension, elevated cholesterol), pain syndromes (arthritis, low back pain, headaches, fibromyalgia), autoimmune (asthma, diabetes, irritable bowel, chronic fatigue, multiple sclerosis) and immune (HIV, breast cancer) conditions, as well as aging problems (sleep, balance, osteoporosis, Parkinson's). These and underlying mechanism studies are critically reviewed and suggestions are

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