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## The ethics of yoga in (mental) healthcare

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*Published in:*  
Complementary therapies in medicine

*DOI:*  
[10.1016/j.ctim.2023.102979](https://doi.org/10.1016/j.ctim.2023.102979)

**IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.**

*Document Version*  
Publisher's PDF, also known as Version of record

*Publication date:*  
2023

[Link to publication in University of Groningen/UMCG research database](#)

### *Citation for published version (APA):*

Vollbehr, N. K., Schmidt, A. T., Bartels-Velthuis, A. A., Ostafin, B. D., & Hoenders, H. J. R. (2023). The ethics of yoga in (mental) healthcare: Beyond the traditional Eightfold path. *Complementary therapies in medicine*, 77, Article 102979. <https://doi.org/10.1016/j.ctim.2023.102979>

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## Letter to the Editor

## The ethics of yoga in (mental) healthcare: Beyond the traditional Eightfold path



## ARTICLE INFO

## Keywords

Yoga  
Mental healthcare  
Ethics  
Secularization  
Diversity

To the editor:

Over the last two years, *Complementary Therapies in Medicine* has published more than twenty research articles on yoga interventions for a range of health conditions. Examples are physical conditions such as rheumatoid arthritis,<sup>1</sup> coronary heart disease,<sup>2</sup> chronic pain in sickle cell disease,<sup>3</sup> multiple sclerosis,<sup>4</sup> stroke and Parkinson's disease,<sup>5</sup> cancer in children,<sup>6</sup> potential risk factors such as abdominal obesity,<sup>7</sup> anger issues in adolescents,<sup>8</sup> physical inactivity<sup>9</sup> and cognitive functioning<sup>10</sup> in older adults, and mental health conditions such as generalized anxiety disorder,<sup>11</sup> stress and depression<sup>12</sup> and trauma.<sup>13,14</sup> Yoga is a practice that originated in India three thousand years ago and its original goal is often described as the reduction of human suffering.<sup>15–17</sup> This makes yoga an interesting candidate as a therapeutic intervention. Indeed, research on yoga as a therapeutic intervention has greatly increased over the last decade.<sup>18</sup> Findings of this research are mixed, with positive findings from some outcome variables such as less fatigue and anxiety in rheumatoid arthritis,<sup>1</sup> improved quality of life and cardiovascular risk factors in coronary heart disease,<sup>2</sup> improved cognition in older adults,<sup>10</sup> improved quality of life, fatigue, activity and fitness levels, sleep quality, appetite and decreased anxiety in children with cancer,<sup>6</sup> wellbeing in inactive older adults,<sup>9</sup> and balance in Parkinson's disease;<sup>5</sup> no effects on other outcomes variables such as health impact and disease activity in rheumatoid arthritis,<sup>1</sup> mortality in coronary heart disease,<sup>2</sup> PTSD symptoms,<sup>14</sup> or motor function and independence in stroke patients.<sup>5</sup> It is important to note that much of the previous research has been evaluated as having a high risk of bias and having important methodological shortcomings.<sup>2,5</sup>

In our view, there are several ethical questions that arise when introducing yoga interventions in (mental) healthcare which we would like to address. First, yoga's Hindu background raises questions such as whether yoga can and should be taught as a purely secular practice. In this light, we also discuss whether yoga in (mental) healthcare amounts to permissible (or even desirable) "cultural borrowing" or problematic "cultural appropriation". Second, we discuss the extent to which ethical guidelines could and should be part of a yoga intervention. Third, we address the (lack of) diversity in yoga and the need to adapt yoga interventions to specific populations.

## 1. Yoga: a religious or secular practice?

Recent years have seen a lively debate on whether yoga should best be considered a religious or a secular practice in diverse countries, such as in India,<sup>19</sup> Ireland,<sup>20</sup> the United States,<sup>21</sup> and Greece.<sup>22</sup> In the United States, for example, lawsuits have been filed to address this issue. One case was brought before the U.S. Supreme Court in 2015 by a group of parents who did not want their children to be taught yoga because they saw it as a Hindu religious practice in conflict with their Christian values. The court ruled a somewhat paradoxical decision in that they stated that yoga is indeed religious, but the way it is taught at schools does not advance or inhibit any religion.<sup>23</sup>

Traditionally, yoga practices build on the *Eightfold Path* comprising eight steps or practices leading toward a state of enlightenment.<sup>15–17</sup> These steps start with *yamas* and *niyamas* (ethical guidelines, see next section), to be followed by *asana* (yoga postures), *pranayama* (control of the breath), *pratyahara* (drawing one's awareness in), *dharana* (concentration, e.g., on a *mantra*), *dhyana* (meditation), and finally *samadhi*, oftentimes defined as a state like Enlightenment.<sup>15–17</sup> Today, most yoga interventions in (mental) healthcare teach skills to participants, primarily yoga postures (*asana*), breathing practices (*pranayama*) and different forms of concentration and meditation (*pratyahara*, *dharana* and *dhyana*).<sup>24</sup> These skills and practices can be introduced and taught without a religious connotation. However, the final step, *samadhi*, might be more concerning for people with different religious backgrounds. In addition, even when *samadhi* is not formally part of intervention goals, the practices are traditionally meant to lead to this state. This raises several questions regarding the advantages and drawbacks of secularizing a yoga intervention.

But what would it mean to secularize yoga? A first step is to assess which aspects of yoga have clear religious roots in Hinduism. As previously mentioned, the step of *samadhi* in the *Eightfold Path* has religious connotations. Ethical guidelines too may have such connotations, but, as discussed in the next section, those are not inevitable. The other six steps of the *Eightfold Path* might possibly be taught as skills or practices outside a religious context. However, even then it may be important to assess which aspects have religious connotations and what those are. For instance, postures have Sanskrit names that often arguably refer to

<https://doi.org/10.1016/j.ctim.2023.102979>

Received 21 June 2023; Received in revised form 13 July 2023; Accepted 25 August 2023

Available online 26 August 2023

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Hindu mythological persons or gods (e.g., *Natarajana*, an avatar of the god *Shiva*), which for some has a religious connotation. On the other hand, these names might also just be viewed as references to postures. In everyday language, we oftentimes use words and names with a religious origin without having that origin meaningfully impacting our use of the word (e.g., the word ‘cereal’ stems from ‘Ceres’, the Roman goddess of agriculture and harvest). Thus, a word or phrase with a religious etymology does not by itself imply that using it has a religious meaning.

The religious-secular question can become more complex when using *mantras* (reciting or chanting specific words or phrases) as a yoga intervention (potentially in the sixth step, *dharana*). *Mantras* often invoke gods or other Hindu mythological figures. Some yoga experts consider the chanting of *mantras* an important tool in yoga practice.<sup>25</sup> Several scientific studies have started to investigate the effects of *mantra* practice on well-being.<sup>26,27</sup> Interestingly, some of these studies identify *mantras* as clearly religious, whereas others do not. For example, in one study conducted in India it is explained that *mantras* are invocations to Hindu gods.<sup>26</sup> While in another study among Filipino healthcare workers (a predominantly Catholic country) no reference is made to the religious origins of *mantra* practice.<sup>27</sup> Invoking deities from another religion might be problematic for Christians as well as other religious groups, such as Muslim clerics who have called upon their followers to refrain from chanting Sanskrit chants.<sup>28</sup>

Given these issues, one approach to secularizing yoga interventions might be to refrain from all religious connotations. For example, instead of using the original names of the yoga postures, one could opt for the names that describe the pose (e.g., Chair pose). This approach has some benefits. First, the practice may become more accessible for people from different religious and nonreligious backgrounds. This is important, as some studies,<sup>29,30</sup> but not all,<sup>31</sup> found that perceived interference with religious beliefs was a barrier for starting yoga. Second, in many countries, the (mental) healthcare system is publicly funded. This raises the question whether public money can be used for religious purposes and whether interventions in (mental) healthcare need to be free from religious connotations. By secularizing the intervention, this issue is avoided. Finally, specific yoga interventions might be developed to target symptoms or processes of specific conditions, using only practices that proved to be effective in treating certain conditions, instead of teaching participants more general yoga practices, targeted at a more general goal of “reducing suffering” (e.g., certain breathing practices to target anxiety, active yoga postures to target depression or fatigue, balance postures to target bone strength etc.).

One argument against the secularization of yoga interventions is that doing so might be an instance of problematic “cultural appropriation”. Although this term has rapidly become politicized,<sup>32–34</sup> we suggest that when secularizing a yoga intervention, it is important to consider potential ethical issues of using or adapting practices originating in a different culture. Some forms of using other cultural elements will likely strike most as clearly unethical, such as negative stereotyping, treating central (sacred) cultural elements with ridicule or as something to be commodified in a way that radically subverts the original meaning (e.g., from something intended to reduce suffering to something that primarily represents status or profit).<sup>29</sup> Other forms may be permissible or even desirable – i.e., normative “borrowing” or “fusion” such as the development of new artistic or linguistic styles<sup>35,36</sup> or the adaptation of religious practices to a new host country.<sup>37</sup> In order to consider the ethical implications of the large middle area between these poles, it would be helpful to define problematic “cultural appropriation” in a way that differentiates it from permissible “cultural borrowing”. Although various definitions exist, many contain the use of “permission” in regard to the use of another culture’s practices and define “cultural appropriation” as borrowing from another culture without “permission”.<sup>33,34</sup> However, using “permission” as the primary criterion in ethical evaluations has several weaknesses. For example, it is oftentimes difficult to determine who is the one to ask permission from.<sup>33,34</sup> In addition, cultures have always changed and exchanged with each other (e.g., it is

argued that yoga itself borrowed from other cultures, such as Scandinavian gymnastics<sup>4</sup> and Indian yoga teachers have played a large role in spreading yoga to the Western world).<sup>38</sup> So, “permission” may not represent the best criterion to distinguish “cultural borrowing and exchange” from “cultural appropriation”.

We follow Appiah<sup>32</sup> and Gray<sup>33</sup> in suggesting that the construct “cultural disrespect” might be more helpful than models of ownership and permission when considering the ethical implications of adapting yoga to the West. As mentioned above, using elements from another culture can be “disrespectful”, i.e., when used with ridicule or when doing so completely misrepresents the original meaning. Using elements from another culture can also be within the range of respectful “cultural borrowing”.<sup>32,33</sup> Because “disrespect” is an evaluative term, it will have gray areas where it will remain contested as to what counts as disrespectful. Philosophical work on respect can provide helpful guidance, but, ultimately, individual cases will require a healthy dose of common sense, inclusive debate, and contextual understanding. While this is a complex and multifaceted issue, from the perspective of “disrespect”, a practical starting point could be that teaching a secularized yoga intervention in (mental) healthcare without acknowledging the origins of the practices to participants runs the risk of being unethical. Therefore, we suggest an important step for yoga interventions in mental healthcare is to respectfully acknowledge the origins of yoga, for example by providing information on issues such as yoga’s Hindu background, which practices from the *Eightfold Path* are used in the intervention, and the pros and cons of offering a secularized form of yoga.

## 2. Yoga: including or excluding ethical guidelines?

Originally, yoga was not only a physical practice but included a complex philosophical framework and ethical guidelines on how to live a good life. The ethical guidelines are called *yamas* and *niyamas* and are the first two steps of the *Eightfold Path*.<sup>15–17</sup> These guidelines, for example, instruct people to do no harm, speak the truth, work on self-study and dedicate their lives to something that is greater than themselves. The issue of including ethical values closely relates to that of yoga’s religious background. However, even when yoga interventions omit Hindu references, traditional ethical guidelines can still be included. These guidelines offer participants a certain ethical perspective on how to live a good life. In (mental) healthcare, the question arises whether a publicly funded system should include interventions with a specific conception of what a good life contains. This question becomes particularly acute in today’s diverse societies where individuals often have very different conceptions of the good.<sup>39</sup> While some ethical guidelines, such as doing no harm and speaking the truth, might be uncontroversial and justifiable from a broad range of ethical belief systems, ethical guidelines in traditional yoga can be far-reaching, ranging from a duty to refrain from eating meat, sexual intercourse, indulgent eating and drinking, and a duty to retreat from public life completely and refrain from all worldly desires. Modern guidebooks on yoga often contain detailed descriptions of these ethical guidelines, such as specific practices for personal hygiene, diet, and fasting.<sup>40,41</sup> Even today, yoga practitioners continue to debate these guidelines, for example whether a yoga practitioner can eat meat.<sup>40,42</sup> Because of this, compared to standard treatments, yoga interventions can seem to be far-reaching and deeply penetrating individuals’ lives. Standard interventions such as medication or psychotherapy provide far less specific instruction on how people should live their daily lives.

Parallel to the discussion of yoga’s Hindu background, there are benefits to excluding ethical guidelines. For example, doing so makes the practice accessible in a publicly funded system and allows practitioners to focus on reducing the symptoms of a certain condition instead of offering a complete spiritual path. On the other hand, worries around problematic “cultural appropriation” might apply here as well, as these ethical guidelines are oftentimes viewed as the roots of traditional yoga

practice.<sup>43,44</sup> Echoing concerns expressed about modern mindfulness interventions, another argument against excluding ethical guidelines is that such a watered-down form of the traditional practice aims only at symptomatic relief and might end up being used for goals that are incompatible with yoga's traditional goal to reduce existential suffering (for instance, using yoga concentration practices to become a better shooter, or using yoga techniques for stress relief at the work place, when the work environment is clearly contributing to the stress of the employee).<sup>45,46</sup>

To mirror our perspective above, in pluralist societies with publicly funded healthcare systems, there are strong arguments to use an ethically 'thin' notion of yoga, meaning that strong ethical guidelines are avoided. This might mean that it is best to refrain from traditional guidelines that tell participants of a yoga intervention in (mental) healthcare how to live a good life. At the same time, it is important that teachers and researchers acknowledge that these guidelines are part of traditional yoga practice and inform their participants accordingly.

### 3. Yoga: only for white, skinny, healthy, women or for a diverse population?

Statistically, yoga practitioners in the United States are more likely to be women, younger, white, college educated and higher earners, compared with non-yoga practitioners.<sup>47</sup> The covers of Yoga Magazine (the largest magazine on yoga for the public in the United States, with a total circulation of over 350,000 subscribers<sup>48</sup> and with a website of over one million unique visitors per month)<sup>49</sup> might give the impression that yoga is only practiced by white, slim, young, very flexible women. Advertising research has found that consumers tend to be more positive towards advertisement that features models of their own ethnicity.<sup>50</sup> Therefore, showing predominantly one ethnicity may create barriers for people from different backgrounds. Indeed, several studies have found the underrepresentation of different ethnicities to be a barrier for yoga in minority groups,<sup>51,52</sup> and one study found belonging to a minority group to be associated with higher drop-out.<sup>53</sup> Barriers for people from different backgrounds becomes a pressing issue considering that in some countries, such as the United States, ethnic minorities are disproportionately affected by many health conditions leading to higher disease morbidity and mortality, compared to the White majority.<sup>54</sup> Such barriers might thus disproportionately affect those who need a (potentially) effective intervention the most.

Moreover, yoga intervention manuscripts are often unclear whether participants from different backgrounds were included. They frequently do not report the ethnicity of participants,<sup>55–57</sup> and when they do, participants are predominantly White (e.g., with a median of 83 %).<sup>56</sup> Although a higher percentage of White participants would be expected given that many of the studies were carried out in the US (46 %),<sup>56</sup> where 61.6 % of the population is White,<sup>58</sup> the data suggest that racial diversity in the studies is not representative of the population. A recent meta-analysis did not find differences in efficacy of psychological treatment between ethnic/racial minority groups and White participants.<sup>59</sup> However, when these data are not available in yoga research, the effects of yoga studies cannot be generalized to ethnic minorities with the consequence that the effects for these groups remain largely unknown. Therefore, we suggest that to make yoga research and interventions more widely accessible, the presentation of yoga and research into yoga interventions could (and should) become more diverse.

When it comes to gender diversity, women have traditionally been underrepresented in clinical trials.<sup>60</sup> In yoga research, however, women tend to be overrepresented, as trials include mostly women,<sup>61–65</sup> or only women,<sup>57,66,67</sup> although there also are some exceptions.<sup>68–70</sup> Research has shown that men might perceive the predominance of women in a class as a barrier to attending a yoga class, making a yoga intervention less accessible to them.<sup>52,71,72</sup> Echoing the issue of limited diversity in ethnicity, we suggest that participants of both genders should be

included to make yoga interventions accessible for those who need it, regardless of their gender. Studying effects of yoga interventions is especially important, as, for instance, it is found that meditation interventions have different effects for men and women.<sup>73</sup> To generalize results of a study to a whole population with a certain health condition, or maybe even to study how yoga interventions can have different effects for men or for women, it is important to include enough men in yoga research.

Yoga programs could also be made more accessible to physically diverse populations. A review of barriers for yoga practice identified fear of injury and a perceived lack of ability to perform the practices as important barriers.<sup>52</sup> Another study mentioned physical limitations, overweight, poor balance or flexibility and poor health as barriers to yoga.<sup>74</sup> In (mental) healthcare, yoga is often offered for a specific condition and participants suffering from this condition need to be attracted to treatment. To echo heightened gender and ethnic diversity, a more diverse imagery of participants when offering yoga for specific health conditions might also help attract those patients that would most benefit from the intervention.

Finally, in (mental) healthcare, sub-populations may require a specific adaptation of yoga, e.g., pregnant women need to refrain from certain postures, participants with obesity, (chronic) pain, injuries or limited physical mobility need postures adapted to their limits, and participants with certain psychological conditions such as posttraumatic stress disorder or schizophrenia need other adaptations. Some studies describe certain adaptations made specifically for such groups of patients.<sup>75,76</sup> However, it is often unclear if and how programs were adapted for certain populations.<sup>77–79</sup> Note that only just over half of the studies (54 %)<sup>80</sup> include drop-out rates or adequately report safety data including adverse events.<sup>56</sup> Reported drop-out rates range from 15 % to 20 % without much difference between the yoga group and different forms of control groups, but are higher for participants with medical conditions (can be up to 40 %), especially for certain conditions such as oncological diseases, HIV and pregnant women.<sup>80</sup> High drop-out rates in these populations could have different reasons, for instance a lack of motivation as the practice was suggested to them instead of based on personal interest, or because their condition made it physically or motivationally difficult for them to do anything (and not just yoga). Or the practice had not been adapted enough to fit the needs of the specific populations. We therefore argue that more extensive and explicit adaptations of yoga programs for participants with limited mobility or other conditions and needs are needed, including descriptions of how these interventions were adapted for a specific population.

### 4. Conclusion

Yoga interventions hold promise for improving mental and physical health for patients suffering from a diverse range of mental and physical conditions, but there are several important ethical issues to consider. For an overview of the ethical questions that we have addressed in this letter, including our suggestions and cautions, see Table 1. To summarize, in public healthcare settings and in culturally and religiously diverse groups, we recommend using *secular* yoga interventions in which traditional ethical guidelines are excluded, yet advise teachers to be clear about yoga's Hindu background, and underlying traditional ethical principles. In these settings we argue to strive for diversity regarding participants and presentation of yoga practitioners. The central ethical questions raised in this paper can provide some structure for further debate. We hope that with this effort, the field will continue to evolve and improve in offering solutions to individual suffering, the traditional goal of yoga.

### Funding

This study did not receive any grant from funding agencies in the public, commercial, or not-for-profit sectors.

**Table 1**  
Overview of the ethical questions, suggestions and cautions.

Ethical question	Suggestions	Benefits	Cautions
1. When offering yoga interventions in (mental) health care, what role should yoga's Hindu background play?	Offer a secularized form of yoga in (mental) health care, refraining from all religious connotations	1. Yoga interventions become more accessible for people from different religious and nonreligious backgrounds 2. In many countries the (mental) healthcare system is publicly funded, therefore it is questionable whether public money can be used for religious purposes 3. Might encourage the development of yoga interventions to target specific conditions, using practices that proved to be effective, instead of teaching participants more general yoga practices	1. It is important yoga interventions remain within the range of respectful "cultural borrowing" and not problematic "cultural appropriation" 2. Start with respectfully acknowledging the origins of yoga and make clear which practices from the <i>Eightfold Path</i> are used in the intervention
2. Should ethical guidelines be part of yoga interventions in (mental) health care?		1. In diverse societies, individuals often have different conceptions of the good, therefore including ethical guidelines could deeply penetrate individuals' lives 2. An intervention without these ethical guidelines makes yoga interventions accessible in a publicly funded health care system 3. An yoga intervention without ethical guidelines allows	1. It is important yoga interventions remain within the range of respectful "cultural borrowing" and not problematic "cultural appropriation" 2. Ethical guidelines and their origin and meaning could be explained, yet make clear that the specific intervention does not include them 3. A watered-down form of the traditional practice might aim only at symptomatic relief and end up being used for goals that are incompatible with yoga's

**Table 1 (continued)**

Ethical question	Suggestions	Benefits	Cautions
3. There is a lack of diversity regarding race, gender and specific patient populations in yoga in general and specifically in (mental) healthcare	The presentation of yoga and research into yoga interventions should become more diverse and be made more accessible to physically diverse populations	1. People from (racial or gender) minorities might experience fewer barriers to participate in a yoga intervention, potentially making these interventions available to more patients and potentially to those who need it most 2. More will be known about the effects of yoga interventions for certain (racial or gender) minority groups 3. A more diverse imagery of participants when offering yoga for specific health conditions might attract those patients that would benefit most from it 4. More extensive and explicit adaptations of yoga programs for participants with limited mobility or other conditions and needs will reduce drop-out rates and makes it possible for physically or mentally challenged patients to potentially benefit from a	traditional goal to reduce existential suffering

(continued on next page)

Table 1 (continued)

Ethical question	Suggestions	Benefits	Cautions
		yoga intervention	

### CRedit authorship contribution statement

**Nina Vollbehre:** Conceptualization, Methodology, Investigation, Writing - original draft preparation **Andreas Schmidt:** Conceptualization, Methodology, Investigation, Writing - review and editing **Agna Bartels-Velthuis:** Writing - review and editing, Supervision **Rogier Hoenders:** Writing - review and editing, Supervision **Brian Ostafin:** Writing - review and editing, Supervision.

### Declaration of Competing Interest

The authors have no potential conflicts of interest to disclose.

### References

- Puksic S, Mitrovic J, Culo M, et al. Effects of yoga in daily life program in rheumatoid arthritis: a randomized controlled trial. *Complement Ther Med.* 2021;57, 102639. <https://doi.org/10.1016/j.ctim.2020.102639>.
- Li J, Gao X, Hao X, et al. Yoga for secondary prevention of coronary heart disease: a systematic review and meta-analysis. *Complement Ther Med.* 2021;57, 102643. <https://doi.org/10.1016/j.ctim.2020.102643>.
- Bakshi N, Cooley A, Ross D, et al. A pilot study of the acceptability, feasibility and safety of yoga for chronic pain in sickle cell disease. *Complement Ther Med.* 2021;59, 102722. <https://doi.org/10.1016/j.ctim.2021.102722>.
- Pan Y, Huang Y, Zhang H, Tang Y, Wang C. The effects of baduanjin and yoga exercise programs on physical and mental health in patients with multiple sclerosis: a randomized controlled trial. *Complement Ther Med.* 2022;70, 102862. <https://doi.org/10.1016/j.ctim.2022.102862>.
- Garcia-Munoz C, Gonzalez-Garcia P, Jesus Casuso-Holgado M, Martinez-Calderon J, Heredia-Rizo AM. Are movement-based mindful exercises (QIGONG, TAI CHI, AND YOGA) beneficial for stroke and Parkinson's disease? A scoping review. *Complement Ther Med.* 2023;72, 102912. <https://doi.org/10.1016/j.ctim.2022.102912>.
- Stritter W, Everding J, Luchte J, Eggert A, Seifert G. Yoga, meditation and mindfulness in pediatric oncology – a review of literature. *Complement Ther Med.* 2021;63, 102791. <https://doi.org/10.1016/j.ctim.2021.102791>.
- Anhey D, Koch AK, Thoms MS, Dobos G, Cramer H. Yoga in women with abdominal obesity – do lifestyle factors mediate the effect? Secondary analysis of a RCT. *Complement Ther Med.* 2021;60, 102741. <https://doi.org/10.1016/j.ctim.2021.102741>.
- Mani ATL, Omkar SN, Sharma MK, Choukse A, Nagendra HR. Development and validation of yoga module for anger management in adolescents. *Complement Ther Med.* 2021;61, 102772. <https://doi.org/10.1016/j.ctim.2021.102772>.
- Welford P, Osth J, Hoy S, Diwan V, Hallgren M. Effects of yoga and aerobic exercise on wellbeing in physically inactive older adults: randomized controlled trial (Fit-ForAge). *Complement Ther Med.* 2022;66, 102815. <https://doi.org/10.1016/j.ctim.2022.102815>.
- Hoy S, Osth J, Pascoe M, Kandola A, Hallgren M. Effects of yoga-based interventions on cognitive function in healthy older adults: a systematic review of randomized controlled trials. *Complement Ther Med.* 2021;58, 102690. <https://doi.org/10.1016/j.ctim.2021.102690>.
- More P, Kumar V, Rani MU, et al. Development, validation, and feasibility of a generic yoga-based intervention for generalized anxiety disorder. *Complement Ther Med.* 2021;63, 102776. <https://doi.org/10.1016/j.ctim.2021.102776>.
- Uebelacker LA, Wolff JC, Guo J, et al. Teens' perspectives on yoga as a treatment for stress and depression. *Complement Ther Med.* 2021;59, 102723. <https://doi.org/10.1016/j.ctim.2021.102723>.
- Braun TD, Uebelacker LA, Ward M, Holzhauser CG, McCallister K, Abrantes A. We really need this: trauma-informed yoga for veteran women with a history of military sexual trauma. *Complement Ther Med.* 2021;59, 102729. <https://doi.org/10.1016/j.ctim.2021.102729>.
- Zaccari B, Sherman ADF, Febres-Cordero S, Higgins M, Kelly U. Findings from a pilot study of Trauma center trauma-sensitive yoga versus cognitive processing therapy for PTSD related to military sexual trauma among women veterans. *Complement Ther Med.* 2022;70, 102850. <https://doi.org/10.1016/j.ctim.2022.102850>.
- Desikachar TKV. *The Heart of Yoga: Developing a Personal Practice*. Rochester: Inner Traditions; 1999 (Revised edition).
- Sovik R. The science of breathing – the yogic view. *Biol Basis Mind Body Interact.* 2000;122:491–505.
- Iyengar BKS. *Light on Yoga*. New York: Schocken Books; 1979 (Revised edition).
- Wieland LS, Cramer H, Lauche R, Verstaep A, Parker EA, Pilkington K. Evidence on yoga for health: a bibliometric analysis of systematic reviews. *Complement Ther Med.* 2021;60, 102746. <https://doi.org/10.1016/j.ctim.2021.102746>.
- Hindupost desk. Twitterati correct VP Venkaiah Naidu's misguided "Yoga has no religion" notion. (<https://www.hindupost.in/dharma-religion/twitterati-correct-the-vps-misguided-yoga-has-no-religion/>). Updated 2020. Accessed 12/30, 2020.
- Pepper D. It's a stretch to say yoga isn't religious. (<https://www.irishnews.com/lifestyle/faithmatters/2020/05/16/news/its-a-stretch-to-say-yoga-isn-t-religious-1938671/#:~:text=The%20fact%20remains%20that%20it,six%20orthodox%20chools%20of%20Hinduism>). Updated 2020. Accessed 12/30, 2020.
- Rojas R. In a plan to bring yoga to Alabama schools, stretching is allowed. 'Namaste' isn't. (<https://www.nytimes.com/2020/03/09/us/alabama-yoga-schools.html>). Updated 2020. Accessed 12/30, 2020.
- BBC News. Greek Orthodox Church rules yoga is 'incompatible' with Christianity. (<https://www.bbc.com/news/world-europe-52935478>). Updated 2020. Accessed 12/30, 2020.
- Court of appeal, fourth Appellate District, division one, State of California. APPEAL from a judgment of the superior court of San Diego county, John S. Meyer, judge affirmed. 2015;Super. Ct. No. 37–2013-00035910-CU-MC-CTL(09/04).
- Feuerstein G. *The Deeper Dimension of Yoga. Theory and Practice*. Boston: Shambhala Publications; 2003.
- Mohan G. Exploring yoga as therapy. *Int J Yoga Ther.* 2006;16:13–19.
- Lolla A. Mantras help the general psychological well-being of college students: a pilot study. *J Relig Health.* 2018;57:110–119.
- Waelde LC, Thompson L, Gallagher-Thompson D. A pilot study of a yoga and meditation intervention for dementia caregiver stress. *J Clin Psychol.* 2004;60: 677–687.
- Verma A. Yoga day row: Chanting of 'Om' against tenets of Islam, say Muslim clerics. (<https://www.deccanchronicle.com/nation/current-affairs/190516/yoga-day-row-chanting-of-om-against-tenets-of-islam-say-muslim-clerics.html>). Updated 2016. Accessed 07/19, 2021.
- Patel NK, Akkibhebbalu S, Espinoza SE, Chiodo LK. Perceptions of a community-based yoga intervention for older adults. *Act Adapt Aging.* 2011;35:151–163.
- Flemming K, Adamson J, Atkin K. Improving the effectiveness of interventions in palliative care: The potential role of qualitative research in enhancing evidence from randomized controlled trials. *Palliat Med.* 2008;22:123–131.
- Nayak HD, Patel NK, Wood R, Dufault V, Guidotti N. A study to identify the benefits, barriers, and cues to participating in a yoga program among community dwelling older adults. *J Yoga Phys Ther.* 2014;5.
- Appiah K.A. From yoga to rap, cultural borrowing is great; the problem is disrespect. (<https://thewire.in/books/cultural-borrowing-kwame-anthony-appiahbook-extract-lies-that-bind>). Updated 2018. Accessed 12/08, 2022.
- Gray B.J. The question of cultural appropriation. (<https://www.currentaffairs.org/2017/09/the-question-of-cultural-appropriation>). Updated 2017. Accessed 02/17, 2023.
- Morton B. All shook up: The politics of cultural appropriation. (<https://www.dissentmagazine.org/article/all-shook-up-the-politics-of-cultural-appropriation>). Updated 2020. Accessed 12/08, 2022.
- McWhorter J. Cultural appropriation can be beautiful. (<https://www.nytimes.com/2021/10/08/opinion/cultural-appropriation-opera.html>). Updated 2021. Accessed 01/20, 2023.
- McWhorter J. Are white people using Black English words being like Elvis stealing rock and roll? (<https://johnmcwhorter.substack.com/p/are-white-people-using-black-english>). Updated 2021. Accessed 01/20, 2023.
- De Bary WT. *The Buddhist Tradition in India, China, and Japan*. New York: Random House; 1969.
- Goldberg M. "Where the whole world meets in a single nest". (<https://slate.com/human-interest/2015/11/university-canceled-yoga-class-no-its-not-cultural-appropriation-to-practice-yoga.html>). Updated 2015. Accessed 07/29, 2021.
- Schmidt AT. The ethics and politics of mindfulness-based interventions. *J Med Ethics.* 2016;42:450–454.
- Faulds R. *Kripalu Yoga: A Guide to Practice on and off the Mat*. New York: Bantam Books; 2005.
- McCall T. *Yoga as medicine. The Yogic Prescription for Health and Healing*. Dell, New York: Bantam; 2007.
- Roth K. Can yogis eat meat? (<https://www.yogajournal.com/lifestyle/caring-carnivore>). Updated 2017. Accessed 02/17, 2020.
- Kripalu Center for Yoga and Health. Yoga's ethical guide to living: The yamas and niyamas. (<https://kripalu.org/resources/yoga-s-ethical-guide-living-yamas-and-niyamas>). Updated 2020. Accessed 07/28, 2020.
- Shah S. How to make the yamas and niyamas work for you in the modern world. (<https://www.artofliving.org/us-en/how-to-make-the-yamas-and-niyamas-work-for-you-in-the-modern-world>). Updated 2018. Accessed 07/28, 2020.
- Purser R.E. *McMindfulness. how mindfulness became the new capitalist spirituality*. London: Watkins Media; 2019.
- Monteiro LM, Musten RF, Compson J. Traditional and contemporary mindfulness: finding the middle path in the tangle of concerns. *Mindfulness.* 2015;6:1–13.
- Cramer H, Ward L, Steel A, Lauche R, Dobos G, Zhang Y. Prevalence, patterns, and predictors of yoga use: results of a U.S. nationally representative survey. *Am J Prev Med.* 2016;50:230–235.
- Alliance for Audited Media. Consumer magazines - total circulation. (<http://abcas3.auditedmedia.com/ecirc/magtitlesearch.asp>). Updated 2018. Accessed 09/04, 2018.
- Yoga Journal. About Yoga Journal. (<https://www.yogajournal.com/page/about-us>). Updated 2018. Accessed 09/04, 2018.
- Torres IM, Luna-Nevarez C. What products can benefit from African American advertising appeals? the moderating role of product involvement. *J Curr Issues Res Advert.* 2012;33:37–55.
- Middleton KR, Lopez MM, Moonaz SH, Tataw-Ayuketah G, Ward MM, Wallen GR. A qualitative approach exploring the acceptability of yoga for minorities living with

- arthritis: 'where are the people who look like me?'. *Complement Ther Med.* 2017;31:82–89.
- 52 Cagas J.Y., Biddle S.J.H., Vergeer I. When an activity is more than just exercise: A scoping review of facilitators and barriers for yoga participation. *Int Rev Sport Exerc Psychol.*
- 53 Moonaz SH, Bingham CO, Wissow L, Bartlett SJ. Yoga in sedentary adults with arthritis: effects of a randomized controlled pragmatic trial. *J Rheumatol.* 2015;7:1194–1202.
- 54 Baldwin D. Disparities in health and health care: focusing efforts to eliminate unequal burdens. *J Issues Nurs.* 2003;8.
- 55 McCall MC, Ward A, Roberts NW, Heneghan C. Overview of systematic reviews: Yoga as a therapeutic intervention for adults with acute and chronic health conditions. *Evid-Based Complement Alter Med.* 2013. 945895.
- 56 Cramer H, Ward L, Saper R, Fishbein D, Dobos G, Lauche R. The safety of yoga: a systematic review and meta-analysis of randomized controlled trials. *Am J Epidemiol.* 2015;182:281–293.
- 57 El-Hashimi D, Gorey KM. Yoga-specific enhancement of quality of life among women with breast cancer: systematic review and exploratory meta-analysis of randomized controlled trials. *J Evid-Based Integr Med.* 2019, 24:UNSP 2515690×19828325.
- 58 Jones N., Marks R., Ramirez R., Ríos-Vargas M. 2020 census illuminates racial and ethnic composition of the country. [Nina K. Vollbehr<sup>a,b,\\*</sup>](https://www.census.gov/library/stories/2021/08/improved-race-ethnicity-measures-reveal-united-states-population-much-more-multiracial.html#:~:text=White%20Population,-Overall%2C%20235.4%20million-&text=The%20White%20alone%20population%20accounted,million%20and%2072.4%25%20in%202010.Updated%202021. Accessed 06/08, 2022.</a></p>
<p>59 Coughle JR, Grubaugh AL. Do psychosocial treatment outcomes vary by race or ethnicity? A review of meta-analyses. <i>Clin Psychol Rev.</i> 2022;96, 102192.</p>
<p>60 Ford ME, Siminoff LA, Pickelsimer E, et al. Unequal burden of disease, unequal participation in clinical trials: solutions from African American and Latino community members. <i>Health Soc Work.</i> 2013;38:29–38.</p>
<p>61 Cramer H, Klose P, Brinkhaus B, Michalsen A, Dobos G. Effects of yoga on chronic neck pain: a systematic review and meta-analysis. <i>Clin Rehabil.</i> 2017;31:1457–1465.</p>
<p>62 Cramer H, Lauche R, Haller H, Dobos G. A systematic review and meta-analysis of yoga for low back pain. <i>Clin J Pain.</i> 2013;29:450–460.</p>
<p>63 Lauche R, Hunter DJ, Adams J, Cramer H. Yoga for osteoarthritis: a systematic review and meta-analysis. <i>Curr Rheumatol Rep.</i> 2019;21:47.</p>
<p>64 Sivaramakrishnan D, Fitzsimons C, Kelly P, et al. The effects of yoga compared to active and inactive controls on physical function and health related quality of life in older adults- systematic review and meta-analysis of randomised controlled trials. <i>Int J Behav Nutr Phys Act.</i> 2019;16:33.</p>
<p>65 Siczekowska SM, Casagrande PdO, Coimbra DR, Vilarino GT, Andreato LV, Andrade A. Effect of yoga on the quality of life of patients with rheumatic diseases: systematic review with meta-analysis. <i>Complement Ther Med.</i> 2019;46:9–18.</p>
<p>66 Gong H, Ni C, Shen X, Wu T, Jiang C. Yoga for prenatal depression: a systematic review and meta-analysis. <i>BMC Psychiatry.</i> 2015:15.</p>
<p>67 Cramer H, Peng W, Lauche R. Yoga for menopausal symptoms – a systematic review and meta-analysis. <i>Maturitas.</i> 2018;109:13–25.</p>
<p>68 Dunne EM, Balletto BL, Donahue ML, et al. The benefits of yoga for people living with HIV/AIDS: a systematic review and meta-analysis. <i>Complement Ther Clin Pract.</i> 2019;34:157–164.</p>
<p>69 Cramer H, Haller H, Klose P, Ward L, Chung VCH, Lauche R. The risks and benefits of yoga for patients with chronic obstructive pulmonary disease: a systematic review and meta-analysis. <i>Clin Rehabil.</i> 2019;33:1847–1862.</p>
<p>70 Cramer H, Anheyer D, Saha FJ, Dobos G. Yoga for posttraumatic stress disorder – a systematic review and meta-analysis. <i>BMC Psychiatry.</i> 2018;18:72.</p>
<p>71 Atkinson NL, Permeth-Levine R. Benefits, barriers, and cues to action of yoga practice: a focus group approach. <i>Am J Health Behav.</i> 2009;33:3–14.</p>
<p>72 Cagas JY, Biddle SJH, Vergeer I. Yoga not a (physical) culture for men? understanding the barriers for yoga participation among men. <i>Complement Ther Clin Pract.</i> 2021;42, 101262.</p>
<p>73 Rojiani R, Santoyo JF, Rahrig H, Roth HD, Britton WB. Women benefit more than men in response to college-based meditation training. <i>Front Psychol.</i> 2017;8:551.</p>
<p>74 Combs MA, Thorn BE. Yoga attitudes in chronic low back pain: Roles of catastrophizing and fear of movement. <i>Complement Ther Clin Pract.</i> 2015;21:160–165.</p>
<p>75 Kinser PA, Bourguignon C, Whaley D, Hauenstein E, Taylor AG. Feasibility, acceptability, and effects of gentle hatha yoga for women with major depression: findings from a randomized controlled mixed-methods study. <i>Arch Psychiatr Nurs.</i> 2013;27:137–147.</p>
<p>76 West J, Liang B, Spinazzola J. Trauma sensitive yoga as a complementary treatment for posttraumatic stress disorder: a qualitative descriptive analysis. <i>Int J Stress Manag.</i> 2017;24:173–195.</p>
<p>77 Vollbehr NK, Bartels-Velthuis AA, Nauta MH, et al. Hatha yoga for acute, chronic and/or treatment-resistant mood and anxiety disorders: a systematic review and meta-analysis. <i>PLOS One.</i> 2018;13, e0204925.</p>
<p>78 Cramer H, Pokhrel B, Fester C, et al. A randomized controlled bicenter trial of yoga for patients with colorectal cancer. <i>Psychooncology.</i> 2016;25:412–420.</p>
<p>79 Dong B, Xie C, Jing X, Lin L, Tian L. Yoga has a solid effect on cancer-related fatigue in patients with breast cancer: a meta-analysis. <i>Breast Cancer Res Treat.</i> 2019;177:5–16.</p>
<p>80 Cramer H, Haller H, Dobos G, Lauche R. A systematic review and meta-analysis estimating the expected dropout rates in randomized controlled trials on yoga interventions. <i>Evid-Based Complement Alter Med.</i> 2016, 5859729.</p>
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