

Yogatherapy: A systematic review

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Abstract

The systematic review aims to get to know the scientific articles that approach the practice of Yoga from a perspective of Yoga Therapy, that is, to know, in the published literature, if there are therapeutic effects with the practice of Yoga, in the treatment of diverse pathologies.

The literature search regarding the therapeutic effects of Yoga practice, took place in the months of January and February 2020 on the bases PUBmed, Psyc INFO, Lilacs, Angeline, Cochrane Library, using the terms Yogatherapy. Original studies were included that include yoga interventions, with some type of pathology, participants of all ages, written in English and Portuguese, published in peer-reviewed magazines and articles available for reading. Articles referred to in the bibliographic references were also included.

Eighteen systematic reviews and Meta-Analyzes, and 37 empirical studies were identified. Regarding the location, most studies took place in the United States of America, followed by India.

Studies that seek to find effects of Yoga practice in diverse pathologies showed the most had participants with cancer and their caregivers (n = 14), with more studies on breast cancer (n = 4). Next, the most frequent articles are chronic pain (n = 5), diabetes type 2 (n = 3), Parkinson's disease, blood pressure, and AIDS (n=2). With just one article, the themes: urinary incontinence, mobility limitations, ringing in the ears, schizophrenia, depression, irritable bowel, metabolic syndrome, polycystic ovary, arthritis, and hospitalized children.

After analyzing the articles, it was found that the practice of Yoga has positive effects in several pathologies. However, there are some methodological limitations in some studies, which limited their interpretation and comparability. Recommendations for future investigations are presented, namely that investigations should be carried out differentiating the effects of each component of Yoga practice and follow up on the effects in a longer period.

Keywords: yogatherapy, pathology, yoga, therapy, disease

Introduction

There is evidence that the practice of yoga promotes health and wellness. The goal of Yoga is to balance the mind and the body in a happy lifestyle (Shetty, A., 2016) ^[1]. Yoga practices have increased the efficiency of the physiological and psychological functioning of the body. This author believes that more research is needed on the benefits of Yoga as a therapy.

According to Khalsa, S. (2012) ^[2], Yoga can play a role in preventive medicine, reducing the risk factors for some diseases and leading to real positive changes in the lives of practitioners. It can also help to treat some pathologies. For this author, a real biological response occurs when practicing Yoga, explaining that the combination of physical postures and exercises (asanas), the regulation of breathing (pranayama), deep relaxation and meditation balance the regulation systems of the brain and of the body. When practicing Yoga, the activity of the genes is affected, they reduce heart rate and blood pressure, decrease stress hormones, which results in a decrease in the symptoms of mental and physical problems. Sleep quality and fatigue levels are also improved. At the physical level, there are benefits in flexibility, muscle stretching, improved posture and balance, and reduction in joint and spine pain. The practice of Yoga also produces physical sensations of greater vigor, increases the ability to maintain prolonged physical or mental efforts and boosts libido. Also, according

to Khalsa (2012) ^[2], body-mind practice of Yoga can modify the region of the brain that influences feelings of contentment, immediately affecting mood. Its meditative component can lead to changes in the sense of identity, in relationships with internal events (thoughts and feelings) and external events (changes in life). All of this results in more flexibility, less rigidity and more self-power in the lives of practitioners.

In a literature review by Roy (2017) ^[3] with referenced articles published between 2002 and 2012, he suggests that there are several areas in which the practice of Yoga can be beneficial, even though he considers that they present methodological gaps. According to his conclusions, Yoga can improve self-efficacy, self-competence, Physical condition and can effectively complement the mitigation of medical conditions. This author points to the need for more research to be able to establish more definitively the benefits of Yoga practice.

In order to know the recent research that seeks to identify the effects of Yoga in different pathologies, a systematic review was carried out with scientific articles.

Method

Research Strategy

The research strategy to identify articles published in peer-reviewed journals followed the steps indicated in the PRISMA flowchart (Moher, *et al*, 2009) ^[4] The databases

consulted were: MEDLINE / PubMed, LILACS and SciELO, Cochrane Library. Keywords used: yogatherapy. The chosen articles were published in English and in Portuguese from 2014 to 2020.

Inclusion criteria

The selected articles had to be peer-reviewed, published in English and in Portuguese from 2014 to 2020, include interventions reporting Yoga programs, the type of study to be systematic review, meta-analysis, experimental or quasi-experimental study, participants with some type of pathology or patients caregivers, all ages, the entire article be accessible and results of the intervention. The bibliographic references of the selected articles were also consulted and analyzed. The survey was conducted during January and February 2020.

Quality assessment of articles.

The AMSTAR scale (National Collaborating Center for Methods and Tools, 2011)^[5] was used to assess the quality of systematic reviews and Meta-analyses. Its indicators are as follows: indication of the project, selection and double extraction of the articles, research carried out in at least two sources, studies regardless of their situation of publication, listing of the included and excluded articles, characteristic studies, quality assessment studies, reflect the quality of articles in conclusions, methods of combining results, probability of bias assessed and the absence of conflict of interests. The Jadad scale (Jadad *et al.*, 1996)^[6], for assessing the quality of the empirical articles included in the review. The scale indicators are as follows: reference to the type of sampling, clarity in the description of the interventions, description of the “double blind”, comparison

with the control group, explanation of the withdrawn and excluded studies, description of the method to assess the adverse effects, indication of the objectives, exposure of statistical methods, clear definition of product measures, description of the inclusion and exclusion criteria and justification of the sample size.

Data collection

The included articles were selected based on their titles. Then, the abstracts were analyzed to see if the article should have a complete analysis, in which case the article was examined and included in the review. Initially 444 articles were found, then 137 articles were considered eligible. In the end, there are 55 articles in the systematic review, of which 18 systematic reviews and Meta-analyses, and 37 empirical articles.

Data analysis.

The data were summarized in the results and described in a narrative form based on the data presented in the two tables: systematic reviews and Meta-analyses (Table 1) and empirical articles (Table 2).

The results will be exposed according to the following indicators: first author and date of publication, geographic location, objectives and pathology, type of study, characterization of the participants (number of studies or number of participants), nature of the intervention, and results.

Results

Two tables were prepared to present the analysis performed, one for systematic reviews and meta-analyses (Table 1) and another with empirical articles (Table 2).

Table 1: Systematic Reviews and Meta-analysis

Author(s)	Country	Goals	Type	Participants	Results
Brieges, 2017 ⁷	USA, Taiwan, It Atl, Ind, Ira, GBR	Effects of Yoga practice on depression	RS	23	Yoga interventions effectively reduce depression.
Broderick, 2017 ⁸	-	Effects of Yoga practice on schizophrenia	RS	3 studies	There were small changes in the quality of life with the practice of Yoga, necessary more studies.
Cramer, 2017 ⁹	-	Yoga practice and quality of life, mental health and symptoms in women with breast cancer	RS MA	24 RS 23 MA	There is an average evidence with the practice of Yoga in improving the quality of life, reducing fatigue, sleep disorders, depression and anxiety.
Cramer, 2018 ¹⁰	-	Yoga in reducing post-traumatic stress	RS MA	7 studies	Yoga can only be recommended as an adjunct intervention in post-traumatic stress.
Danhawer, 2017 ¹¹	-	Yoga therapy during the treatment of cancer patients	RS	25 studies	Consistent improvement at a psychological level (depression, anxiety). Yoga has improved quality of life, sleep and fatigue.
Dunne, 2019 ¹²	USA, India, Canada	Benefits of Yoga practice in distress in AIDS patients	MA	7 studies (n=396)	Yoga intervenes positively in people with AIDS.
Haider, 2016 ¹³	-	Yoga alternative / complement in cardio-vascular disease	RS	12 studies	They concluded that there was a decrease in one or more factors associated with cardiovascular diseases.
Haider, 2019 ¹⁴	USA, Romania, China	Effects of Yoga practice on Parkinson's disease	RS	11	Yoga is a body-complementary approach to the treatment of Parkinson's disease.
Klatte, 2016 ¹⁵	-	Effects of Yoga practice on mental disorders	RS MA	25 studies (n=1339)	Yoga as a promising complementary treatment for the treatment of mental disorders.
Lawrence, 2017 ¹⁶	GBR	Yoga in stroke rehabilitation, recovery and quality of life	RS	2 studies (n=72)	Yoga has the potential to be included in stroke rehabilitation, but more research will be needed.
Li, 2019 ¹⁷	Ind, Trk, Kor, USA Swd, Ger, Chin	Efficacy of Yoga in Chronic Neck Pain	RS MA	10 studies (n=686)	Yoga relieves the intensity of neck pain and can be an alternative treatment.
Thinda, 2017 ¹⁸	-	Effects of Yoga practice on diabetes type 2	RS	23 studies (n=2473)	Yoga improves blood glucose results and other risk factors for type 2 diabetes.
Volbeh, 2018 ¹⁹	-	Yoga and Mood and Anxiety Disorders	RS MA	18 studies	Yoga has no effect on mood and anxiety disorders, but compared to psychoeducation it reduces

					depression.
Wang, 2018 ²⁰	-	Yoga and knee arthritis, pain reduction and well-being	MA	13 studies (n=1557)	Regular Yoga practice helps to reduce the symptoms of knee arthritis, promoting physical function and general well-being.
Weland, 2017 ²¹	USA	Effects of Yoga practice on non-specific back pain	RS	12 studies (n=1080)	Little to moderate evidence that Yoga results in improving back function, 3 and 6 months looking slightly effective.
Yang, 2016 ²²		Effects of Yoga Practice on Asthma	RS	14 studies	There was moderate evidence that Yoga improves quality of life and asthma symptoms.

Table 2: Empirical Articles

Author(s)	Count.	Goals	Type	Participant	Intervention	Results
Adair, 2018 ^[23]	USA	Yoga and head and neck cancer survivors	EXP	15 exp 20 control	3x/week 4 week 2x/week 4 weeks	Beneficial effects on shoulder movements, pain and anxiety, with potential efficacy for head and neck cancer survivors.
Baernardi, 2019 ^[24]	Brasil	Yoga on anxiety, well-being in caregivers of cancer patients	EXP	18 exp 18 control	4-14 days 35 min.	Yoga is a useful tool that can reduce anxiety and increase well-being for caregivers of cancer patients.
Ben-Josef, 2016 ^[25]	USA	Yoga and prostate cancer in the treatment of chemotherapy	Quasi EXP	15	2x/week 6-9weeks	Preliminary results show stability in fatigue, sexual health and quality of life in individuals with prostate cancer during chemotherapy treatment.
Bhardwaj, 2019 ^[26]	India	Effects of Yoga on blood glucose levels in type 2 diabetes	EXP	52 exp 52 control	5x /week 40 min 6 months	Yoga has improved glycemic control and has a beneficial effect in preventing complications caused by type 2 diabetes.
Bhat, 2018 ^[27]	India	Yoga in balance in Parkinson's patients	Quasi Exp	30	3x/week 80 min 8 weeks	With the practice of Yoga there is a significant improvement in balance in patients with Parkinson's.
Cramer, 2018 ^[28]	Germany	Effects of Yoga practice on blood pressure	EXP	25 posture 25 not post. 25 control	1x/week 90 min 12 weeks	Only Yoga without postures (breathing, meditation, relaxation) induces a decrease in blood pressure.
Derry, 2015 ^[30]	USA	Yoga and cognitive problems in breast cancer survivors	EXP	100 exp 100 control	2x/week 12weeks	Yoga can reduce cognitive complaints in breast cancer survivors, most favorable when practiced more often. It improved anguish and quality of life.
Evans, 2018 ^[30]	USA	Effects of Yoga practice on irritable bowel syndrome	Quasi EXP	29 yoga 18 subgrupo 22 control	2x/week 6 weeks	Yoga can have an impact on positive gastrointestinal discomfort. Teenagers consider Yoga a therapy, at home is necessary to have maximum benefit.
Ghani, 2018 ^[31]	India	Yoga in pain management in knee osteoarthritis	Quasi EXP	50	3x week 30 min 2 months	Yoga practices have shown significant differences in decreasing pain in knee osteoarthritis.
Gnanabankthan, 2017 ^[32]	India	Effects of Yoga practice on hypertension in men	EXP	20 exp 20 control	5x/week 45 min 6 weeks	Yoga practice decreases systolic and diastolic blood pressure in men.
Groessi, 2017 ^[33]	USA	Effects of Yoga on Chronic Back Pain in Military Veterans	EXP	75 exp 75 control	2x/week 12 weeks	Yoga improves health in veteran military. The magnitude of intensity of back pain decreases a little, but in context of reduced use of pain medication.
Groessi, 2018 ^[34]	USA	Effects of Yoga practice in seniors with mobility limitations	EXP	22 23 control	2x/ week 60 min 10 weeks	Yoga has important benefits for the senior population, is safe and has been well received by people with reduced mobility.
Hardoerfer, 2018 ^[35]	Germany	Effects of Yoga and anxiety symptoms in cancer patients	EXP	37 exp 33 control	1x/ week 60 min 8 weeks	Anxiety was significantly reduced with Yoga intervention.
Hawkins, 2018 ^[36]	USA	Yoga in Parkinson's disease	EXP	15 exp 12 control	2x/ week 8 weeks	Yoga can reduce the fall risk, improve postural stability and functional walking in Parkinson's.
Huang, 2017 ^[37]	USA	Yoga and women with pelvic pain	EXP	20 exp 18 control	2x/week 90 min 6 weeks	Yoga practice improves pelvic pain management, it improves life quality and sexual function.
Huang, 2019 ^[38]	USA	Yoga practice has effects on urinary incontinence	EXP	28 exp 28 control	2x / week 2x home 3 months	Yoga practice contributes to the reduction of total or stress incontinency.
Huberty, 2019 ^[39]	USA	Effects of online Yoga practice on cancer patients with metastases	EXP	27 exp 21 control	Online 60 min 12 weeks	Online Yoga has low impact on sleep, pain and anxiety, and has a moderate impact on depression.
Janelinsins,	USA	Effects of Yoga on Memory	EXP	168 exp	2x/week	Yoga significantly reduces self-reported

2016 ^[40]		and Sleep Problems in Breast Cancer		160 control	75 min 8 sessions	memory difficulties and sleep problems.
Koksoy, 2018 ^[41]	Turkey	Effects of Yoga practice on ringing in the ears	Quasi EXP	12	1x/week 60 min 12 weeks	Yoga practice can reduce the stress and symptom of ringing in the ears.
Kometsu, 2016 ^[42]	Japan	Yoga at home for women with breast cancer during chemotherapy	Quasi EXP	18	Yoga at home with DVD	An improvement in the cognitive aspects of fatigue was observed. No adverse aspects. The low-intensity program proved to be safe and workable.
Kumaravelu, 2018 ^[43]	India	Yoga in bio-chemical variables in type 2 diabetes	EXP	15 exp 15 control	8 weeks	Yoga helps to increase the HDL level and contributes to lower blood glucose and LDL.
Lau, 2015 ^[44]	China	Yoga and quality of life in metabolic syndrome	EXP	79 exp 75 control	1x/week 60 min 12 weeks	A 12-week Yoga and program reduces metabolic risk and improves quality of life.
Lin, 2019 ^[45]	USA	Yoga's influence on fatigue and sleep in cancer patients	EXP	68 exp 60 control	2x/week 75 min 4 weeks	Yoga has a significant effect on fatigue and sleep in cancer patients.
Lopez, 2018 ^[46]	USA	Yoga in distress symptoms, in cancer patients and their caregivers	Quasi EXP	205 sick 7 caregivers	45 min	Group Yoga classes improve symptoms of distress, according to self-report by patients and caregivers.
Loudon, 2017 ^[47]	Australia	Yoga in shoulder and spine movements in women lymphoedema in breast cancer	EXP	12 exp 11 control	1x/week 8 weeks	Participation in a Yoga program leads to benefits in posture and fitness in women with breast cancer and lymphoedema.
Mascaro, 2019 ^[48]	USA	Yoga reduces physical and emotional symptoms in cancer patients	Quasi EXP	486	40 min	Yoga practice reduces anxiety and fatigue, and can be an adjunct therapy in hospitalized patients.
Mooraz, 2015 ^[49]	Canada	Yoga and arthritis in sedentary people	EXP	25 exp 28 control	2x/week 60 min 8 weeks	Yoga classes can help sedentary individuals with arthritis to do safe physical activity and improve physical and psychological health and quality of life.
Prathikanti, 2017 ^[50]	USA	Effects of Yoga on medium to moderate depression	EXP	20 exp 18 control	2x/week 90 min 8 weeks	Yoga practice has resulted in a significant reduction in the severity of depression.
Seema, 2018 ^[51]	India	Effects of Yoga practice on polycystic ovary	EXP	30 exp 30 control	9 postures 3 months	Yoga reduces anxiety in adolescents with polycystic ovaries and prevent cardiovascular diseases and diabetes in the long term, self-corrective therapy.
Sohl, 2016 ^[52]	USA	Yoga in disorders in patients with colorectal cancer	EXP	6 exp 5 control	3 in person 4x/week home	The study demonstrated the need to conduct a study with a larger number of participants with colorectal.
Sreedevi, 2017 ^[53]	India	Effects of Yoga Practice and Type 2 Diabetes	EXP	32 exp 32 control	2x/week	Yoga improved blood glucose results.
Telles, 2016 ^[54]	India	The practice of Yoga in chronic lower back pain	EXP	31 exp 31 control	60 min 12 weeks	Yoga practice improve vagal balance in chronic lower back pain, better alignment of intervertebral discs.
Varambally, 2019 ^[55]	India	Measure the effectiveness of an intervention with Yoga in schizophrenia	EXP	80 exp 80 control	1-5 months at home	Yoga improves the psychopathological and emotional process, altering brain activation in areas associated with schizophrenia.
Wimberly, 2018 ^[56]	USA	Yoga has the effect of reducing stress and substance use in people with AIDS.	EXP	38 exp 36 control	1x/week 90 min 3 months	Yoga practice can reduce stress and substance abuse in AIDS patients (although the control group did not have an equal time intervention).
Zetzi, 2019 ^[57]	Germany	Yoga reducing fatigue associated with cancer	EXP	64 exp 64 control	1x/week 60' 8 weeks	Yoga reduces fatigue, being a therapy that should be introduced in the daily practice of the cancer patient. It can be done at home.

- Type of study: EXP- experimental study, Almost EXP- without control group.
- Participants: number in the experimental group and in the control group.
- Intervention: times per week, duration of sessions and time of intervention in number of weeks.

Geographic location.

Regarding location, most studies took place in the United States of America (n = 245), followed by India (n = 11), Germany and Great Britain (n = 4), Canada, Brazil and China (n = 3), Sweden, Australia (n = 2) and with only one study Japan, Iran, Italy, Romania, Twain, Turkey and Korea. In some reviews and meta-analyses, the country where the studies were

conducted is not indicated.

Study objectives.

Studies that seek to find effects of Yoga practice in diverse pathologies and with patients or their caregivers were analyzed. In the reviews and meta-analyses, there was a diversity in the pathologies addressed: cancer (n= 2), cardiovascular diseases (n=

2), with one article the following pathologies: mental, mood and anxiety disorders, schizophrenia, epilepsy, depression, arthritis in the knee, post-traumatic stress, stroke, Parkinson's and type 2 diabetes. One article focuses on hyperactivity, which is included in this study because it is usually the subject of medication.

In the empirical studies consulted, the vast majority have participants with cancer and their caregivers (n = 14), with more studies on breast cancer (n = 4), cancer in general (n = 2), in children (n = 2), in caregivers (n = 2), colorectal cancer, prostate, brain, head and neck, blood and tongue, and spinal cord, all with one article. Next, the most frequent articles are chronic pain (n = 5), specifically in the back (n = 3), neck (n = 1) and pelvic pain (n = 1), another object is type diabetes. 2 (n = 3), Parkinson's disease (n = 2), and blood pressure (n = 2). AIDS patients are the subject of two articles. With just one article, the themes: urinary incontinence, mobility limitations, ringing in the ears, schizophrenia, depression, irritable bowel, metabolic syndrome, polycystic ovary and arthritis. One article studied the effects of Yoga on hospitalized children.

Kind of study.

This study consists of eleven systematic reviews of literature, two meta-analyzes, five systematic reviews with meta-analysis, twenty-six experimental studies and nine quasi-experimental studies, in the latter there is an intervention with Yoga, but without a control group. In a total of 55 articles.

Characterization of participants.

The five systematic reviews with meta-analysis include between 7 and 25 studies, in a total of 73 studies (M = 14.6), the total number of study participants, indicated in only three articles, was 3582 participants. The two meta-analyzes included 23 studies. The ten systematic reviews varied between two and 25 studies, for a total of 161 studies (M = 13.4, per review). Regarding the number of participants in the studies, it is not always mentioned, the total mentioned is 4032 participants. One of the systematic reviews had a population of children.

The quasi-experimental studies, in a total of 9, have a total of 920 participants (M = 102 participants per review). In experimental studies, with a total of 28, the number of participants varies between 11 and 328, for a total of 1953 participants (M = 75 participants per study). Most studies have adult participants, two are with children and two with caregivers of cancer patients.

The total number of participants, just as the articles indicate, is 6137 participants, counting the participants in the experimental groups and those in the control groups.

Nature of the intervention.

The interventions with Yoga, which are referenced in

the articles in empirical studies, are very varied in relation to the number of sessions per week, the duration of the sessions and the number of weeks in which they took place. The number of sessions per week varies between one and five, an average of twice a week. Regarding the duration, the sessions vary between 15 and 90 minutes, with an average of 65.5 minutes. Regarding the place where the Yoga programs are carried out, there are studies that refer to Yoga interventions in person and practice at home and others only at home, but with an orientation, prior, and then online follow-up.

The type of Yoga practiced is not analyzed because the vast majority of studies do not mention it. However, in many studies the intervention that was carried out is described.

Evaluation of the quality of studies

Systematic reviews and meta-analyzes were assessed using the AMSTAR scale, ranging from 6 to 10, for a total of 11 points (M = 8.8). The evaluation is high because some of the meta-analyzes, five, were published by COCHRANE which publishes very complete reports regarding the studies analyzed. The quality of empirical studies was assessed using the Jadad scale (Jadad, *et al*, 1996)⁶, varies between 4 and 10, for a total of 11 (M = 8.3).

Results with Yoga interventions

In the examined articles, the results of the interventions with Yoga practices performed are referenced. Some of these results can be classified as physiological, such as regulating blood pressure, regulating blood glucose; physical results, such as arthritis, chronic pain, ringing in the ears; mental and emotional results, as in depression, anxiety, sleep disorders; cognitive and perceptual results, such as attention, memory, fatigue; and results linked to well-being in general and quality of life. Some of the interventions resulted in more than one result.

Discussion

The studies that used Yoga as an intervention are mostly located in the United States of America, a country with a large number of practitioners, followed by India which is the place of origin of this ancient practice. European countries where the practice of Yoga is widespread also carry out investigations with the practice of Yoga. Studies are also appearing in different parts of the world such as Canada, Brazil, Australia, Japan, Korea, Iran, Twain and Turkey. This diversity demonstrates that Yoga has been widespread in various regions of the world and has been the subject of research.

Regarding the pathologies targeted by the studies, there are numerous results in terms of health^[33, 49] and well-being^[25], in quality of life in^[8, 11, 20, 2, 28, 37, 44, 49]. Several disease conditions have been the target of

interventions, in most cases in cancer patients, in which the reduction of fatigue is indicated [9, 11, 29, 35, 42, 45, 48, 57], the reduction of anxiety [9, 19, 23, 24, 29, 39], the decrease in depression [9, 11, 19, 39], the improvement in sleep [9, 11, 29, 45, 52], the reduction of cognitive complaints [29, 42], namely in terms of memory [40], improvement in posture [46], reduction of pain in movements [23], and improvement of sexual function [25]. Caregivers of people with cancer were also the object of investigation Barnardi, *et al* (2019) [24] and Lopez, *et al*, (2018) [46], reported that Yoga practice can contribute to reducing anxiety by increasing caregivers' well-being of these patients.

Another pathology addressed is patients with chronic neck pain [17], back pain [21], lower back [54], chronic pelvic pain [37], ringing in the ears [41], asthma [22], in psychiatric diseases, such as depression [7, 50], reduction in stress [41], improves the psychopathological and emotional process with implications for schizophrenia [55], improvement in sexual function [30]. A large number of interventions led to physiological responses such as changes in blood pressure [10], regulation of blood glucose and risk factors [18, 53], decrease in metabolic risk [44], improvement in cardiovascular diseases [13], reduction in urinary incontinence [41], decrease in mobility limitations [37], improvement in arthritis [52], specifically in knee arthritis [22], improvement in postural stability in Parkinson's disease [39], with effects on post-traumatic stress [10], rehabilitation in case of stroke [16], improvement in cases of irritable bowel syndrome [30], improvement in mental disorders [15]. Stress management improves with the practice of Yoga in AIDS patients [12, 56] and contributes to reducing the use of substances [56].

These results verified in experimental studies, mostly with a control group, yoga sessions were performed infrequently, at most five times a week, and for a short period of time, at most refer to three months in duration. There is a big difference in the studies that were carried out in India that have a higher number of weekly attendance and a longer duration in interventions. In this country, most studies are conducted in residential locations with interventions almost every day, which is difficult to achieve in the West. The content of the interventions is not always described in detail. However, it appears that some articles indicate the intervention that was carried out with details that allow its replication.

Most articles refer to the centrality of the practice of asanas in interventions, as the main component in the effects of the intervention, so it is essential to know which asanas were performed, how many times and for how long. In some studies, asanas are described in addition to breathing practices, meditation and relaxation exercises, which represent the various components of Yoga, and it is not documented whether there are particular effects caused by each one

of them. What makes Yoga practice unique is that it is possible in the same session to go through these different components. In some surveys, the intervention took place at the participants' homes, with recorded classes or online classes, with or without supervision, practices at home may have the problem of persistence without supervision. Home practice was also used as a complement to group practice.

In a study on the reduction in blood pressure with the practice of Yoga, the authors (Cramer, e Selvin, 2018) [10] consider that the verified effects are due to breathing, meditation and relaxation and not to the practice of Yoga postures. This will be a line of investigation that can be followed, seeking to isolate the role of each component of Yoga in the effects of its practice.

Limitations and suggestions for future work.

There is growing evidence that the practice of Yoga is a health modality, recognizing its potential in promoting health and well-being, it is necessary to seek to identify how the various components of Yoga affect the various aspects of Yoga health and well-being. The research to be carried out in the future should take these aspects into account to increase clarity in verifying the real effects of Yoga practice. The quality of the studies analyzed is high, but the description of the interventions and the rigor of the methodology used can be improved. In some articles it is not possible to determine whether the discrepancies are due to methodological aspects such as the practice of different components of Yoga other than asanas, or the depth and intensity of the practice sessions. Also, the fact that the participants are informed that they are experiencing an intervention program with Yoga, as it is self-care, can lead to an increase in self-confidence and self-efficacy in the program, leading to better results in the research. As for the limitations mentioned in the studies analyzed, one of those pointed out by the authors of the articles is the lack of longitudinal studies to monitor interventions with Yoga practice. There is also reference to the need for further research on the effects of Yoga in pathological conditions that happen due to lifestyle, work, food, habits, injuries and exercise. More controlled clinical trials on the benefits of Yogatherapy interventions and their health effects.

Conclusions

This review made it possible to identify the recent published research, which appears in the databases consulted regarding the effects of Yoga practice in various pathologies.

It appears that the practice of Yoga has positive effects in diverse pathologies. Future research should include the components of Yoga and pay attention to duration, frequency, intensity, place of practice, teacher training, description of practice at home, and potential sources

of bias that can lead to poor quality of studies. At a time when people are at home, the offer of online, recorded and interactive classes has proliferated. Classes at home, in pathologies and in healthy people, will be a variable to be further investigated in the future.

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