

Yoga - A Paramount Approach to Human Health

Review Article

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Abstract

Within the realm of yoga, the Eight Limbs Path facilitates various aspects such as mental and physical coordination, cultivates positivity in the mind, and keeps the body healthy and fit, all of which enhance bodily functioning. Modern living is characterised by a variety of diseases and deformities, the majority of which are brought on by imbalanced diet and other factors. The mind is never present in the moment; it is constantly inquiring and rebelling. The mind's task is to think; it interprets everything without stopping. This pattern of habit changes behaviour and attitude and is observed, perceived, and experienced. Yoga is practiced by many people who want to maintain their health and well-being, get fitter, reduce stress, and live better lives. It can also treat certain health conditions such as back pain, neck pain, cancer and anxiety. In fact, yoga performed better than the control and waitlist methods, but not better than the treatment comparison groups, such as other types of exercise. Several other trials compared groups of yoga and vigorous exercise. Once the physical and mental health benefits of yoga were determined, participants were assigned to an inactive control group. Short breaks should be investigated to determine effectiveness and daily performance.

Keywords: Yoga, Illness, Eight Limbs Path, Vigorous exercise, Rebelliousness.

Introduction

Yoga is a philosophic form of physical exercise and meditation that dates back 2000–4000 years to what is now India. Yoga comes in a variety of forms, all with different practices but the same goal of aligning the mind and body(1). Asanas (postures) that are held for a predetermined amount of time, pranayama (controlled breathing exercises), and meditation are common components of many forms. The general goal of yoga practice is to support the integration and development of the body, mind, and breath in order to produce effects that are structural, physiological, and psychological (2). In particular, the growth of a pain-free, flexible, and strong body; a balanced autonomic nervous system that permits all physiological systems to operate at peak efficiency; and a peaceful, clear-headed mind (1).

Yoga science is essentially a philosophical psychology. The very first instruction in Patanjali's Yoga system is to control your mind. This is known as Yoga's chitta-vritti-nirodhah. The philosophical underpinnings of the need to control the mind, which are found in Samkhya and Vedanta, are not covered in detail by Patanjali(3). He states quite succinctly that yoga is mental control and mental restraint.

Yoga is a science of experience. The primary advantage of yoga is its ability to harmonise our mental and physical states. Yoga can help to slow down the ageing process, which is primarily an artificial condition brought on by autointoxication or self-poisoning (Alleger, I. 2007). We can considerably lessen the catabolic process of cell deterioration by maintaining the body hydrated, pliable, and clean. We must combine the practices of yoga asanas, pranayama, and meditation in order to reap the full benefits of yoga.

In Western societies, hatha yoga is the most widely practiced style of yoga. It uses asana to improve balance, strength, flexibility, and mental-physical coordination. breath to quiet the mind and cultivate self-awareness, along with pranayama and meditation exercises(4). The rate at which asanas are executed, the physical intensity and degree of difficulty, the relative emphasis on body alignment and relaxation, and the surrounding temperature are the characteristics that distinguish the various hatha yoga styles that have emerged. Living yoga is more in line with its traditional principles. It consists of controlled breathing (pranayama), asana, and awareness of the mental-controlling yoga sutms (principles).

Regular yoga practice improves body-mind awareness, which is important for diabetic self-management of diet and exercise regimen. Eight steps, or limbs, make up Patanjali's theory of yoga. Each step is equally significant and interconnected as a component of the whole. Self-realisation or discriminative enlightenment is the goal of these eight limbs(5). However, the focus here will be on the

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advantages to health. The following are the eight steps, or limbs, of yoga:

- *Yama*: Self-regulation, abstinence, and codes of restraint;
- *Niyama*: self-training, practices, and observances;
- *Asana*: Pose for meditation
- *Pranayama*: Breath and prana expansion, control, and regulation;
- *Pratyahara*: turning inward and withdrawing the senses;
- *Dharana*: mindfulness;
- *Dhyana*: Calm Possession
- *Samadhi*: The ultimate state of concentration, deep absorption, and elevated meditation.

The two pillars of the yoga lifestyle are "spreading the Light" and "cleaning the mirror." The body and mind are the mirror. They must be tidied up and pure to initially capture the light. So, living a yoga lifestyle is about maintaining physical health and mental purity. The yoga lifestyle is based on a set of ideals and principles, some of which are related to the *YAMAS*, or the five rules of social conduct:

1. *AHIMSA* = non-aggression
2. *SATYA* = veracity
3. *ASTEYA* = not pilfering
4. *BRAHMACHARYA* = signifies loyalty
5. *APARIGRAHA* = Anticipate no greed

Yoga way of life (healthy routines): Swami Satchidananda gives whatever you do your all and everything inside of you. Don't just try it once. Give everything you do your whole attention.

The healthy habits of yoga, as advocated by Swami Satchidananda. Give whatever you do your all and everything inside of you. Don't just try it once. Whatever you do, put your all into it. focus. That's what yoga is. Yoga is more than just putting yourself in a corner, sitting up straight, and then practising breathing exercises or japa. Everything revolves around my yoga. You only practise yoga. When you begin working on something, give it your whole attention. The Bhagavad Gita states, "Yogaha karmasu kaushalam." This implies that yoga is perfectionism in all of your actions.

The first and (generally acknowledged to be) most significant yoga principle is ahimsa. Ahimsa is applicable to everything, including how we treat every other creature as well as our own bodies and minds. Our thoughts and the topics they explore; our speech and topics discussed; and our eating habits and the foods they choose.

Yoga combines physical exercise with an inwardly focused, mindful focus on awareness of the breath, energy, and self. It is a type of mind-body fitness. The therapeutic methods and teachings of yoga are based on four fundamental ideas(6). The first is that the human body is a holistic entity made up of different interconnected dimensions that are inextricably linked to one another, and that any illness or health state that affects one dimension also affects the other dimensions. The second tenet is that every person has different needs, and that each person must be treated as an individual with a practice that is customised to meet

those needs. The third tenet of yoga is that each practitioner is an empowered self-healer. Yoga involves the student in the healing process; by actively participating in their path to wellness, the student gains a greater sense of autonomy and the healing occurs internally rather than externally. The fourth principle holds that mental health and well-being are essential to recovery. Healing occurs more quickly when the person is in a positive mental state; on the other hand, healing may take longer when the person is in a negative mental state(6).

Aim of this study

Yoga is now widely practiced in health clubs, community centres, yoga studios, and schools for fitness and well-being.

Because of its popularity, carefully monitored research is now required and clinical trials to assess its effectiveness in promoting overall health, averting disease, and assessing its potential as a supplemental or adjuvant treatment for the treatment of chronic illnesses or pain. Although studies involving children and young adults have also been conducted, the majority of yoga studies that are currently available in the published literature have been done with adults. The purpose of the review study was to conduct a systematic search of the scientific literature, focusing on finding narrative, critical, and systematic reviews that included studies on the health benefits of yoga in individuals in good health.

Methodology

Search engines used to locate published articles included MEDLINE, EMBASE, Scopus, Science Direct Databases Directory of Open Access Journals (DOAJ), PubMed, and Google Scholar. The conjunctions OR/ AND were used as well as the terms yoga, illness, treatment, and mechanism.

Searches could only be conducted in English studies detailing the use of yoga in the treatment of life disorders. Research published in languages other than English, research published in letters to the editor, conference proceedings, grey literature, previously unpublished data, news items, abstracts and full texts that couldn't be retrieved, and studies that weren't relevant to the current review weren't included.

Discussion

Health Benefits of Exercise

There is historical evidence that exercise can be used to maintain optimal health and aid in rehabilitation civilisations. The Greek philosopher Hippocrates, known as "the father of medicine," recognised the benefits of exercise for both physical and mental health in the fourth century B.C., and the ancient Indian medical system (Ayurveda) recommended exercise and massage for the treatment of rheumatism as early as the ninth century B.C. (7). More recently, a number of epidemiologic studies have shown inverse relationships of differing degrees between the risk of multiple chronic conditions, such as osteoporosis, depression, anxiety, thromboembolic stroke, hypertension, Type 2 diabetes

mellitus, coronary heart disease, and obesity(8). Furthermore, an expanding corpus of studies over the previous 20 years has offered "persuasive" proof of an opposite physical activity and colon cancer risk correlation. Additionally, there is proof of a "probable" inverse relationship between physical activity and the chance of developing additional cancers, such as breast cancer after menopause, endometrial cancer, and restricted suggestive" proof of a comparable correlation between physical lung, pancreatic, and breast activity prior to menopause cancer (1). In addition to its significant contribution to the main prevention of several chronic illnesses, regular physical activity lifestyle can offer numerous health advantages to people who are bearing the weight of long-term illness. There is proof that many chronic diseases have benefits to both physical and psychosocial health when people exercise regularly conditions and as a result, government health departments now advocate maintaining good physical health as a crucial component of self-care to enhance overall wellbeing, increase mobility, and lessen symptoms. In addition to extending survival and improving overall health-related quality of life, an active lifestyle can play a significant role in managing or lessening the effects of a chronic illness (secondary and tertiary prevention)(1).

Health Benefits of Yoga

Yoga has fewer health benefits than other exercise regimens when it comes to disease risk and its ability to manage chronic conditions distinctly established. Research has examined the differences in the physiological reactions elicited by yoga practice versus traditional exercise regimens. Some studies have demonstrated that the heart rate response to regular yoga sessions in healthy adults at normal room temperature is comparable to low-intensity walking exercise (9). This level of exercise is not sufficient to support cardiovascular fitness and overall health at the current recommended level. Studies on healthy adults, however, have shown mixed results; higher levels of cardiopulmonary stress were noted during yoga sessions (10).

Furthermore, certain studies (though not all of them) have shown improvements in cardiometabolic health indices in healthy adults who practise yoga.

Maximum oxygen capacity, muscular flexibility and blood cholesterol profile(11) have all been shown to improve in a number of single group (uncontrolled) studies. Additionally, there has been a decrease in physiological effort at submaximal exercise intensities and a lower level of perceived exertion at maximal exercise capacity. These changes in cardio metabolism imply that yoga can induce a high enough degree of cardiopulmonary stress to have health benefits. There have been reports of additional advantages for healthy individuals practicing yoga, including enhanced respiratory expiratory and inspiratory pressures, as well as improved visual and reduced weight gain in those who were already overweight and slower auditory reaction times. While some studies (e.g. Blumenthal and others, 22) have found no improvement in

cardiopulmonary variables after programmes of yoga practice, the type of yoga practiced, the practitioner's experience level, and the session's ambient temperature are likely to have a significant impact on the actual level of physical exertion experienced during a session, and thus the stimulus for cardio metabolic adaptations. In addition to the physical exercises, yoga incorporates a spiritual component and breathing techniques that are uncommon in other types of exercise and may have additional health advantages(1).

The Canadian Agency for Drugs and Technologies in Health (CADTH) recently conducted a thorough evaluation of the available data and guidelines, analysing the standard of the evidence supporting the use of yoga as a treatment for a few particular mental health conditions, along with links to research and best practices for each of these mental health conditions. The evidence-review report found evidence in favour of yoga as a treatment or adjunctive treatment for depression, to summarise its conclusions. However, yoga may be suggested as a second- or third-line treatment after medication and psychotherapeutics, depending on the kind and severity of depression. In cases of severe depression where there is a significant risk of suicide, yoga is best viewed as a treatment adjunct.

Stress-relieving effects of Yoga

Stress is necessary to maintain homeostasis, but it can be harmful when it overtakes a person or interferes with homeostasis(12). Stress stimulates the nervous system, which also lowers immunity and overworks the adrenal glands(13). Stress throws off the balance between the parasympathetic and sympathetic nervous systems, affecting the body's equilibrium and, ultimately, quality of life(12). Since more young people are experiencing mental health problems and leading challenging lives, there is a pressing need to develop solutions that can reduce stress levels in this demographic (13).

Role of Yoga in preserving physical health

Yoga is more effective in managing both mental and physical health (Chen, K.-M. et al., 2010). The Yogic Intervention has been demonstrated to have a major impact on overall wellbeing; (Kumar K 2012). Yoga could be used as a preventative measure. A different study conducted in Toronto, Canada, unequivocally shows that people who engage in physical activity have a lower risk of developing hypertension than people who lead sedentary lives (Shephard RJ. 2001). According to a 2013 study by Pokhariyal K P and Kumar K, there is a substantial impact of Hatha Yogic Practices on Body weight of the Human subjects. After 4-14 weeks of yoga practice, a study on patients with coronary risk factors and angina revealed a positive response in their lipid profile.

Numerous studies have supported the notion that exercise raises HDL cholesterol, which is supported by an Ontario, Canada study that also supports our findings (Katzmarzyk PT 2001). In his research, Kumar K. (2013) found that yogic cleansing, or shatkarma,

decreased the subjects' blood glucose and cholesterol levels(10),(14). Another study found that the subjects' overall body weight was affected by the yogic intervention (Kumar Kamakhya 2015).

Yoga practice has a positive effect on physical health on a number of general health factors(1).

Impact of Yoga on obesity

Obesity is one of the most common metabolic disorders in the modern world. Due to the continuous changes in lifestyle, environment, and dietary habits in the modern era, man has become susceptible to a wide range of illnesses like obesity. Given the importance of health in today's quickly globalising society, obesity is essentially a lifestyle disorder. As BMI increases, lifespan and life expectancy decrease. It's one of the most common nutritional problems. Obesity is a contributing factor to many diseases, such as diabetes mellitus and hypertension(15). Whether an asana is done alone or in a continuous sequence, such as the sun salutation, it can have varying effects on the body. However, there is no doubt that yoga encourages better calorie burning (15).

Impact of Yoga on Diabetes

It is claimed that practicing yoga reduces stress in life and can even lower blood glucose levels after eating (16). Research has shown that yoga improves the chest wall's dynamic flexibility (17). The flexibility of the hip flexors, anterior trunk, hamstrings, and upper back are targeted in the second and third poses, which involve bending forward and backward; the gastrocnemius is the focus of the fourth and sixth poses. The last elements include the cobra stance, which is perfect for this use(16),(18).

In cases of low back pain, yoga, a self-controlled spinal adjustment, can produce better spinal adjustments(19).

Cardio-respiratory efficiency is enhanced by yoga

According to Madanmohan et al. (2008), six weeks of yoga instruction reduces the sweating reaction to steps test and causes both male and female subjects' respiratory pressures and endurance in the 40 mm Hg test to significantly increase. In a different study, the researchers found that practicing yoga for 12 weeks significantly increases hand grip strength, maximum expiratory pressure, maximum inspiratory pressure, and breath holding time after expiration and inspiration (Madanmohan, 1992)(20). The significance of Nadi Sodhan and Kapalbhati on forced ventilation capacity (FVC), maximum voluntary ventilation (MVV), and peak expiratory flow rate (PEFR) is demonstrated by Kumar K. (2013) in his study(14). Additionally, Joshi et al. (1992) showed that a six-week pranayam breathing course improved ventilation as evidenced by a decrease in respiratory rate and increases in the maximum voluntary ventilation, peak expiratory flow rate, forced expiratory volume at the end of the first second, forced vital capacity, and extended breath holding time(1).

After practicing yoga for ten weeks, Makwana et al. (1988) saw similar positive results. An increase in both

expiratory and inspiratory pressures indicates that practicing yoga strengthens both the expiratory and inspiratory muscles.

Skeletal muscles and respiratory muscles are similar. Isometric contraction, a component of yoga techniques, is known to boost skeletal muscle strength. The initial lung volume determines the breath holding duration. Gains control over breathing by overriding the stimuli to the respiratory centres. This and enhanced cardiorespiratory function could account for the subjects who trained in yoga's extended breath holding periods(21).

Impact of Yoga on the reproductive system

Women are more likely than men to experience health issues like irregular menstruation. They also have a duty to have a healthier population if they want to be a wealthy nation. In case of premenstrual syndrome has an effect on the everyday lives of women, especially college-age women. Premenstrual syndrome may be exacerbated by the sedentary lifestyles of college females, which also affect their BMI ratio. The body and the mind need to be active for one to be in good health. Everyone's general health will improve with physical and breathing exercises(22). According to studies, performing the yoga on a regular basis may help women with irregular menstrual cycles and guarantee simple labour. It helps to bring back the lustre. It helps to prolong the appearance of wrinkles, restore the sheen throughout, and improve its durability and brilliance (23),(24). Numerous menopause symptoms can be lessened by regular yoga practise (25). Every age range can gain from it is used because it can improve physical performance prior to adolescence(26). Based on the research, abnormal BMI has an impact on premenstrual syndrome. Combining Surya Namaskar with walking can help relieve menstrual pain and help shed pounds gained from a sedentary lifestyle. The results of the study show that teenage girls who exercise regularly can permanently prevent the symptoms of premenstrual syndrome(22). Every female experiences menarche, which comes after puberty and is a critical stage in preparing her body for reproduction. Due to dietary habits and environmental factors, menarche and puberty occur earlier than they should when the body is not ready for those changes procedures. This lowers life expectancy, raises the risk of cardiovascular disease, and causes dysmenorrhea, infertility, and a host of other menstrual cycle-related problems(27). For girls, yoga is crucial for delaying puberty and readying the body for the necessary changes. As a result, it's imperative to begin teaching yoga to children as early as age 7. Twelve weeks of yoga classes lasting an hour, covering asanas, pranayama, meditation, and yoga. Results of the yoga for teenage girls suffering from PCOS (polycystic ovarian syndrome) demonstrated(27) alterations in cholesterol, insulin, and blood sugar levels that were significant(27). Additionally, in a study involving 42 men, practicing yoga decreased seminal oxidative stress and enhanced sperm motility and oxidative DNA

damage, which together have a positive effect on the sperm's dynamics(27). Research highlights the importance of prenatal yoga in mitigating pregnancy-related stress, hormone fluctuations, and labour pain. Nonetheless, caution is advised when recommending asanas and consideration of contraindications during pregnancy. Prenatal yoga is claimed to have positive effects on musculoskeletal activities and to help hospitalised high-risk pregnant patients relieve stress.

Yoga helps with common disorder management

These days, depression, hypertension, and joint-related issues are all very common. Yogic intervention has a significant impact on serum glucose levels, according to Kumar K (2012). People with depression People with rheumatoid arthritis who took part in a yoga programme for three months showed stronger handgrips than those who did not practice yoga, according to Haslock, et al. (1994). In their study, Negi A and Kumar K noted that Yogic Intervention had a significant impact on the R A Factor in gout patients. People with hypertension have shown to have significantly lower blood pressure when they practise yoga (Blumenthal JA 1989). Yogic intervention has been shown to have a significant impact on blood uric acid levels in another study(1).

Conclusion

The findings indicate that yoga enhances physical strength of respiratory muscles, treats premenstrual symptoms, and lowers blood pressure, stress, flatulence, body weight constipation, and blood sugar levels. It also lessens the chance of high-risk pregnancy, enhances male sperm motility, and reduces oxidative stress and damage to seminal DNA. As a result, we conclude that in order to benefit from yoga, everyone should do it every day. There is still more to discover about the health benefits of yoga, as its full benefits are still unknown.

Limitations

More research is needed to fully understand yoga's molecular influence before recommending it in future disease management strategies. Subsequent investigations featuring a sound methodology, a substantial sample size, and advanced techniques should, however, corroborate the results of the present investigation.

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Conflict of interest

Authors declare no conflicts of interest.

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