
EDITORIAL**International Yoga Day***Geeta S. Pardeshi**Department of Community Medicine, Vardhaman Mahavir Medical College and Safdarjung Hospital,
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The global burden of Non-Communicable Diseases (NCDs) constitutes a major public health challenge and threatens to undermine the social and economic development. An estimated 38 million deaths (68% of the 56 million deaths) that occurred globally in 2012, were due to non-communicable diseases, comprising mainly cardiovascular diseases, cancers, chronic respiratory diseases and diabetes [1]. More than 40% of them (16 million) were premature deaths and almost three quarters of all NCD deaths (28 million), occurred in low- and middle-income countries [1]. Mental health problems are on increase in the world [2]. The non-communicable diseases including mental health affiliations share stressful environment and four behavioural risk factors of unhealthy diet, physical inactivity, tobacco use, and harmful use of alcohol. Economic growth and modernization have opened wide the entry point for the spread of unhealthy lifestyles, a precursor for non-communicable diseases, in nearly all countries.

Considering the rising trend of non-communicable diseases and associated risk factors, the United Nations passed the resolution on prevention and control of NCDs [3] which was followed by WHO Global Action Plan for the Prevention and Control of NCDs 2013-2020[4].

In line with these initiatives, United Nations declared June 21 as the International Yoga day on 11th December 2014 [5]. This declaration came after the call for the adoption of June 21 as International Day of Yoga by the Indian Prime Minister, Mr. Narendra Modi, during his address to UN General Assembly on September 27, 2014. This initiative found support from many global leaders, with 175 nations co-sponsoring there solution. From the perspective of yoga, the summer solstice marks the transition to *Dakshinayana*, which is considered a time when there is natural support for those pursuing spiritual practices [6]. 21st June is also the longest day of the year in the northern hemisphere.

The first International Day of Yoga was observed on June 21, 2015 by people across the world by organizing lectures, demonstrations, mass yoga demos, photo exhibitions, conferences, workshops, yoga camps and screening films on Yoga [7]. These events were organized by the representatives of the Indian community and Indian officials in many countries. In a major event in India, more than 35000 people, including Indian Prime Minister and a large number of dignitaries from 84 nations, performed 21 Yoga asanas at Rajpath in New Delhi [6].

Indian Scenario

The government has been taking up many initiatives for encouraging the practice of Yoga through Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy (AYUSH). The department of AYUSH was elevated to the Ministry of AYUSH in 2014. National AYUSH Mission (NAM) has been launched and it has recommended setting up of 50 bedded integrated AYUSH Hospitals in all states which will have a Yoga wellness center with a Yoga instructor in addition to other AYUSH services. The practice of yoga has also been included in the school health program through AYUSH [8]. Yoga also finds a mention in the National Policy on Indian Systems of Medicine & Homoeopathy-2002 [9] which talks about setting up a regulatory council and accreditation system for yoga, introducing yoga in medical schools and institutions and including yoga in medical tourism through fairs, conferences and tourism events. The policy also states that Non-Governmental Organizations (NGOs) could play a role in popularizing Yoga in primary schools, residential colonies and industrial units.

Implications of Declaration of International Yoga Day:

Today health, like life, is about making the right choices and maintaining a balance by avoiding extremes of all kinds. Yoga provides a holistic approach to health and well-being and contributes towards this objective. Yoga is not just about exercise but a discovery of the sense of oneness with ourselves, the world and nature. It aids the process of making healthier choices and following lifestyle patterns that foster good health. Regarding healthy lifestyle it has to be understood

that the choices people make are not in the hands of individuals alone. The responsibility also falls on the environments in which these choices are made and those who control such environments. Interventions for healthy lifestyle must be supported by the government and international cooperation must stress the need for policy solutions that shape social environments which influence the decision making process regarding diet, exercise and other risk factors. International Yoga Day is a step towards this direction. It has provided a platform for wider dissemination of information about the benefits of practicing yoga. With the UN declaration, Yoga gets official recognition at an international level and this will raise the profile of Yoga on the global stage, mobilize the international community, secure the commitment of the governments to support its practice and send a message to donors and funders too.

This will also usher in support for conducting research which is needed to provide an evidence base for supporting yoga as an intervention in the field of medicine.

Challenges Ahead:

Studies have reported the effectiveness of yoga in the management of psychiatric disorders, insomnia and Attention Deficit Hyperactivity Disorder (ADHD). A meta-analysis of effectiveness of yoga therapy as a complementary treatment for major psychiatric disorders provided a pooled effect size of -3.25 (95% CI -5.36 to -1.14 ; $p < 0.002$) indicating that yoga based interventions have a statistically significant effect as an adjunct treatment for major psychiatric disorders [10]. A preliminary study of

effectiveness of yoga in the treatment of chronic insomnia using sleep wake diaries showed that for the 20 participants completing the protocol, statistically significant improvements were observed in the participants' sleep efficiency, total sleep time, total wake time, sleep onset latency and wake time after sleep onset at the end of the treatment phase compared to their baseline pre-treatment scores [11]. Another study suggested that yoga may have merit as a complementary treatment for boys with ADHD already stabilized on medication [12]. Though the evidence of clinically important effects of yoga on mental health problems are encouraging, majority of the attempts to perform meta-analysis and systematic reviews to determine effectiveness of yoga for prevention and control of chronic diseases could not reach any conclusions as studies were of low or moderate quality with many methodological deficiencies [13-15]. There is an urgent need to conduct large high quality randomized controlled trials regarding the impact of Yoga on non-communicable diseases.

The mechanisms of how yoga positively affects the mind-body system have been largely unknown but recent studies have reported some exciting findings. A study which determined immediate effects of a comprehensive yoga program on gene expression profiles in peripheral blood mononuclear cells reported that yoga and related practices result in rapid gene expression alterations which may be the basis for their longer term health effects [16]. In another study it was shown that relaxation response eliciting techniques such as meditation, Yoga, and repetitive prayer may evoke its downstream health benefits by improving mitochondrial

energy production and utilization and thus promoting mitochondrial resiliency through upregulation of ATPase and insulin function [17].

Another challenge is the multiple ways in which people interpret and practice yoga worldwide and this can create confusion. For example in a study in the United States, yoga was endorsed as an exercise activity (92%), a spiritual activity (73%) and a means to manage or treat a health condition (50%) [18]. Though many people think of yoga only as physical exercises these are actually only one of the aspects of this profound science of unfolding the infinite potentials of the human mind and soul. Various paths of Yoga include Hatha Yoga, Karma Yoga, Mantra Yoga, Bhakti Yoga, Jnana Yoga and Raja Yoga which combines the essence of all the other paths. As yoga increases in popularity worldwide, there is a need to define and standardize the meaning and contents of Yoga, establish Yoga teacher training standards and accreditation systems to ensure that it is understood and practiced in its true perspective.

Conclusions:

Yoga is simple, affordable and an inclusive means to promote physical and spiritual health and well-being. All people can practice yoga irrespective of culture, nationality, race, caste, creed, sex, age and physical condition. It has the potential to be an integral part of a package of services for health promotion as well as prevention and control of many non-communicable diseases worldwide. India should take a lead by providing its expertise in the field of yoga for dissemination of information, training, advocacy and research.

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