

## Importance and awareness of yoga among medical students

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### **Abstract**

**Background:** Yoga is a group of physical, mental and spiritual practices or disciplines which originated in ancient India and aim to control and still the mind. There is a wide variety of schools of Yoga practices and goals in Hinduism, Buddhism and Jainism and traditional and modern Yoga is practiced worldwide. The term ‘Yoga’ in the Western world denotes a modern form of a Hatha yoga and a posture based physical fitness, stress relief and relaxation techniques.

**Aim and Objectives:** To know the importance, awareness and knowledge-practice gap among the undergraduate medical students.

**Materials and Method:** The study is conducted on 47 medical students to know the importance, awareness and knowledge- practice gap of Yoga among them. The questionnaire comprising of 17 questions in Google form about various aspects of Yoga were circulated among the students. The response Quantitative variables were presented as percentage.

**Results:** The study demonstrates that 100% of the students are aware about the goodness of Yoga, 97.8% seek it as lifestyle modification and 91.5% of students have practiced Yoga in their life, yet 48.7% of the students’ reported challenges and inhibition in doing Yoga.

**Conclusions:** By practicing Yoga, students learn to overcome stress, pay attention to their work, maintain physical and mental health and needs to be included in the academic curriculum from the beginning.

**Key words:** Yoga, Knowledge-practice gap, questionnaire, challenges, students.

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### **Introduction**

Yoga is a five-thousand-year-old ancient spiritual self-discipline method for integrating the human spirit with mind (1). It is a science and art of healthy and sound living. The word Yoga is derived from Sanskrit word “Yuj” signifying “to join” or “to combine” or “to unite”. Yoga is

believed to balance the three doshas – Vata, Pitta and Kapha. The prime objective of Yoga is self-realization to overcome all types of sufferings prompting the state of salvation(Moksha) or Freedom.

The history of Yoga can be divided into four main periods of innovation, practice and development.

The periods are:

Pre- Classical /Pre- vedic Period.

Classical Period (500 BC to 800 AD)

Post Classical Period (800AD to 1700 AD)

Modern Period (1700AD to 1900 AD)

#### *Pre-Classical Yoga*

Yoga was first mentioned in Rigvedas and is referred in a number of Upanishads. During the Pre- Vedic period (2700 BC ),the historical evidence of existence of Yoga were seen from Vedas, Upanishads, Buddhism, Jainism, Smritis, Puranas etc. till the Patanjali's period. About 1000 years back, on the banks of the lake Kantisarovar in the Himalayas, Adiyogi poured his significant knowledge into legendary Saptarishis and the Sages took this effective yogic Science to various parts of the world including Asia, Middle East, North Africa and South America. Agastya, the Saptarishi travelled along the Indian sub- continent and evolved a core Yogic lifestyle culture. The seals and idols of Mother Goddess were suggestive of Tantra Yoga. The presence of Yoga was accessible in folk traditions, Indus valley Civilization, Vedic and Upanishadic Heritage, Buddhism, Jainism, Darshanas, Sagas of Ramayana and Mahabharat, mystical customs of Shaivas, Vaishnavas and Tantric customs. Sun was given significance amid Vedic period and Pranayama was a part of daily rituals.

#### *Classical Yoga*

The period 500 BC to 800 AD is considered as Classical Period defined as Patanjali's Yoga Sutra. The great sage Maharishi Patanjali systematized the then existing practices of Yoga, its significance and related information through his Yoga Sutra. Amid this period, Vyasa commented on Yoga Sutra and Bhagwadgita. The Bhagwadgita displayed the idea of Gyan Yoga, Bhakti Yoga and Karma Yoga. The Patanjali's Yoga Sutra is related to the eight fold path of Yoga. Also, amid this period aspect of mind was given

significance which evolved through Yogasadhna.

#### *Post Classical Yoga*

The period between 800 AD to 1700 AD is perceived as Post Classical Period wherein lessons of Shankaracharya, Ramanujacharya and Madhavacharya were great contributors. The Nathayogis of Hatha Yoga tradition like Matsyendaranatha, Gorkshanatha, Swatmaran Suri, Gheranada & Shrinivasa Bhatt were some of the considerable identities who popularised Hatha Yoga practices during this period.

#### *Modern Yoga*

The period between 1700 AD to 1900 AD is considered as Modern Period in which Yogacharyas- Ramana Maharishi, Ramakrishna Paramhansa, Paramhansa Yogananda and Vivekananda etc. have contributed for the development of Raja Yoga. This was the period when Vedanta, Bhakti Yoga and Hatha Yoga prospered. Swami Vivekananda popularized adoption of Yoga without Asana to the western mainstream. Krishnamacharya produced three students – BKS Iyengar, TKV Desikachar and Pattabhi Jois who continued his legacy and popularity of Hatha Yoga. In the late 19<sup>th</sup> and early 20<sup>th</sup> century Hatha Yoga was popularized by the Gurus from India. Hatha Yoga has different styles emphasizing different aspects of practice.

#### **Types of Yoga**

*Hatha Yoga* – It is one of the oldest forms of Yoga which includes practice of Asanas(postures), Pranayamas (breathing exercise) which brings peace to mind and body and helps prepare the body for spiritual practices such as Meditation.

*VinyasaYoga* – It is an active and athletic form of Yoga adapted from traditional Ashtanga System in the late 1980s. it means movement synchronised with breath and continuous flow from one posture to another.

*Ashtanga Yoga* – It is a system of Yoga brought to modern world by Sri K. Pattabhi Jois. It includes six series and

each series is a set sequence of Asanas always in the same order. It is typically fast paced, vigorous & physically challenging.

*Power Yoga* – It is described as vigorous Vinyasa style Yoga

*Bikram Yoga* – It consists of 26 postures and two breathing techniques. This style of Yoga helps to flush toxins, manage weight and allow performers to more deeply into postures.

*Jivamukta Yoga* – This type of Yoga was created in 1984. Chanting, Meditation, Readings and Affirmations are done in this style of Yoga.

*Iyengar Yoga* – Poses are held much longer in this form of Yoga to know the precise Musculo-skeletal alignment in each asana. Another feature is the use of props like belts bolsters, chairs, blankets which are used to accommodate injuries, tightness or structural imbalance as well as teach the student how to move properly into posture.

*Anusara Yoga* – It is new system of Hatha Yoga that teaches Universal Principles of alignment that underlie all Yoga postures. It is categorized into three A's. – Attitude, Alignment and Action.

*Sivananda Yoga* – It begins with Savasana (relaxation Pose), Kapal Bhati, Anuloma Viloma followed by few rounds of Suryanamaskara. Then it moves through Sivananda's twelve asanas which are together designed to increase strength and flexibility of spine. Chanting and Meditation is also a part of it.

*Viniyoga* – It is method of practice to unique condition according to needs and interest of individual.

*Kundalini Yoga* – It incorporates multiple movements, dynamic breathing practices, chanting, meditation and mantras. Each Kundalini exercise is referred to movement synchronized with breath.

*Yin Yoga* – It is slow paced style in which poses are held for five minutes or longer. The purpose is to apply moderate stress to the connective tissue tendons, fascia and ligaments with the aim of increasing

circulation in the joints and improve flexibility.

Thus, Yoga is a tradition of health and spirituality that evolved in the Indian Peninsula over a period of 5000 years (1). Presently in the contemporary circumstances everyone has a conviction about yoga practices towards the preservation, maintenance and promotion of health. In spite of the origin of Yoga in India, the benefits of Yoga are not enjoyed by every individual. The reason could be the lack of awareness of the benefits of Yoga and the misconceptions associated with Yoga. Yogis and Sadhus living in the golden age attribute their longevity to the regular practice of Yoga and Pranayama. With the development of Common Yoga Protocol by a team of leading Yoga Experts/Gurus, it is widely performed on the International Yoga Day i.e., 21<sup>st</sup> June of every year. The Common Yoga Protocol included loosening exercises, followed by sitting, standing and supine postures in combination with breathing exercises and meditation (2).

The concept of Yoga is gaining popularity in the recent years. Students of all the professional courses are under stress amongst which Dental and Medical curriculum is rated as the highest (3). Literature reports that Medical Students find difficulty in concentrating on a particular task attributed to the sheer level of stress experienced during the course (4). Review of literature reveals that yoga is helpful in alleviating stress which in turn helps to improve the concentration and understanding (5). In spite of the birthplace, origin and emergence of Yoga from the Indian Peninsula, the Yoga has not reached to every individual. The elaborate and the vast medical curriculum imposes a hidden stress on the medical students. Hence, it is crucial to know the importance and awareness of Yoga among the undergraduate medical students as a holistic approach for complete well-being.

**Aim and Objective**

The aim of the study is to know the Importance and Awareness and Practice gap among the undergraduate medical students towards ensuring physical, mental and psychological wellbeing.

### Methodology

The study is a descriptive study conducted among the First-year undergraduate students of AIIMS Vijaypur Jammu for a period of two month. A close and open-ended questionnaire comprising of 17 questions in Google Forms was circulated among the students through WhatsApp group on 21<sup>st</sup> June, International Yoga Day. The questionnaire comprised of different aspects of Yoga viz. Knowledge of Yoga, practice of Yoga, form of Yoga practiced, duration of Yoga practiced, frequency of doing Yoga, reason for practicing Yoga, awareness of the benefits of Yoga, noticeable changes following Yoga practice, challenges and inhibition in doing Yoga, benefits of Yoga in Studies,

overcoming stress and lifestyle changes, knowledge about Yoga Diet and recommendation of Yoga to friends. The individual responses were recorded in the Response heading of the Google form. The reminder for the questionnaire was given by recirculating in the WhatsApp group while verbal motivation to participate and fill the form continued. Of the 61 students only 47 students participated in the study. The data is analysed with the help of Computer Software MS Excel for Windows. The response Qualitative variables are presented as percentage and related diagrams.

### Results

The total number of students who participated in the study were 47. The response of the Google form was recorded in the tabular form. 100% (Fig. 1) of the students participating in the study reported that Yoga is good for health.

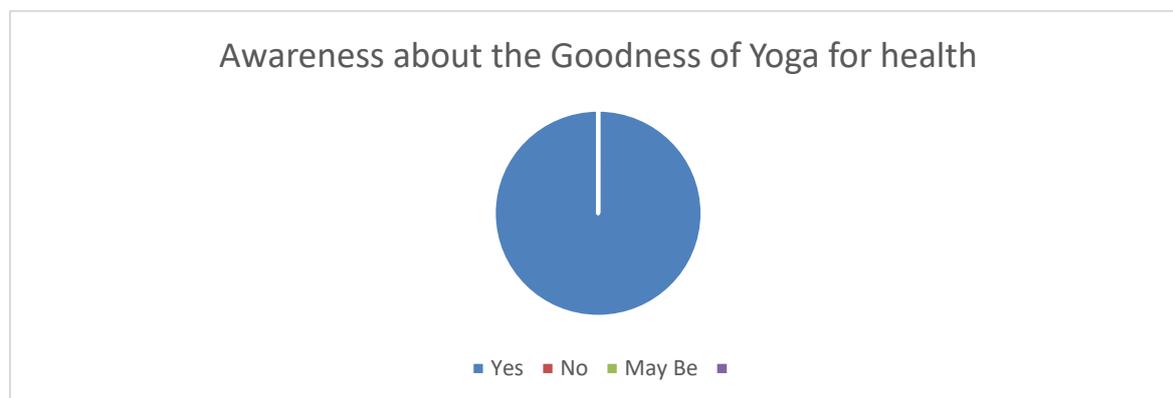


Figure 1

Table 1. Awareness about the Goodness of Yoga, Practice of Yoga in lifetime

Item	Yes	No	Others	No Response
1. Goodness of Yoga	100%	-	-	-
2. Practice of Yoga in life	91.5%	8.5%	-	-
3. Benefits of Yoga	100%	-	-	-

Among 47 students 43 students (91.5%) (Fig. 2) had practiced Yoga in their life with different Asanas viz. Padmasana, Hatha Yoga, Vrikshasana, Pranayama, Dhyan Yoga, Restorative Yoga, Sukhasana, Kapal Bhatti, power Yoga, Meditation, Alom Vilom, Kundalini Yoga and Aerial Yoga. 4 students (8.5%) did not practice Yoga in their life.

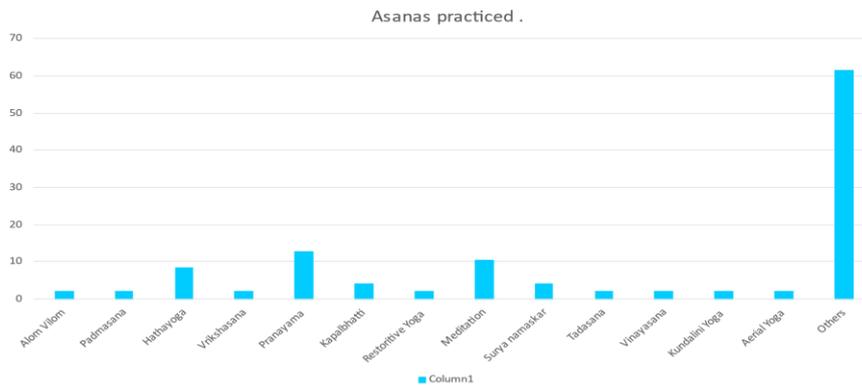


Figure 2

With respect to the duration of Yoga practice, 44.9% of the students practiced Yoga for 15 minutes, 32.7 % of the students practiced for 30 minutes and 22.4% did not report the time duration and none of them reported practicing for 60 minutes.

Table 2. Duration of Yoga Practice

Item	Yes	No	Others
15 Minutes	44.9		
30 Minutes	32.7		
60 Minutes	-	-	-
Others	22.4		

For reason of practicing Yoga 22.4% of the students reported for exercise, 10.2% for flexibility, 28.6% for relaxation and stress relief each, 9% for Spiritual reason and 1.2% reported no reasons. (Fig. 3)

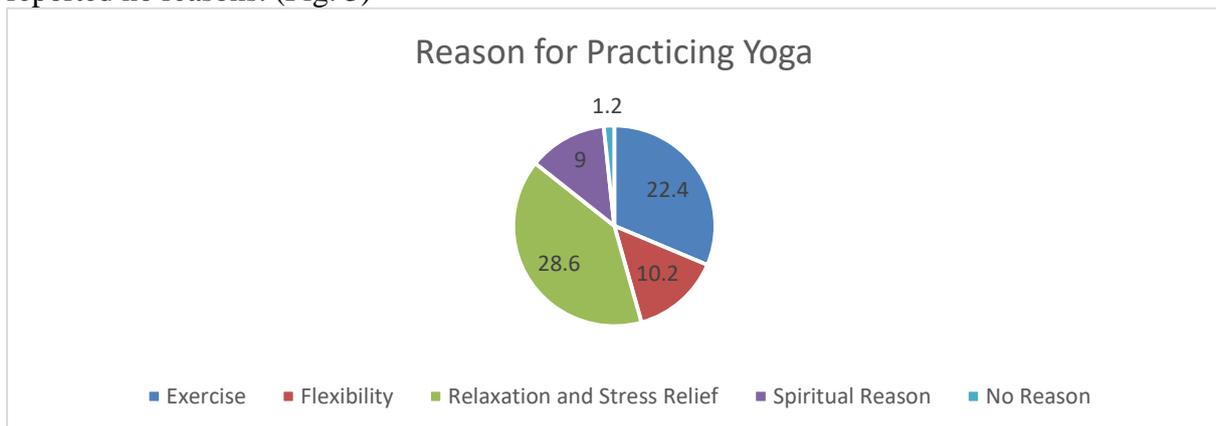


Figure 3

With regard to the frequency of performing Yoga 14.3 % performed daily, 40.8% performed alternately, 20.4% performed weekly, 2.7% never performed and 22.4% gave response as 'others. (Fig. 4)

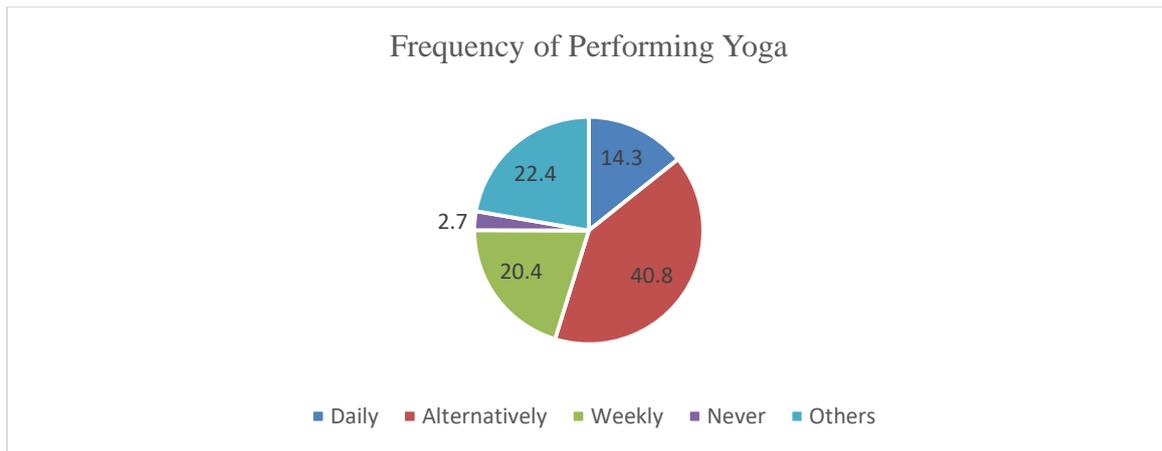


Figure 4

Regarding the benefits of Yoga 95.7% reported that they were aware about the benefits of Yoga and 4.3% were ignorant about the benefits of Yoga. About the different benefits of Yoga 4.2% of students reported improved immunity, 27.6% reported good for internal organs, 46.8% reported fitness and flexibility, 40.42% reported cognition, focussed and improved memory, 38.29% reported stress relief and mood enhancement, 27.6% reported arthritis relief and improved muscle strength and 2.12% reported Spirituality as the benefits of Yoga.(Figure 5)

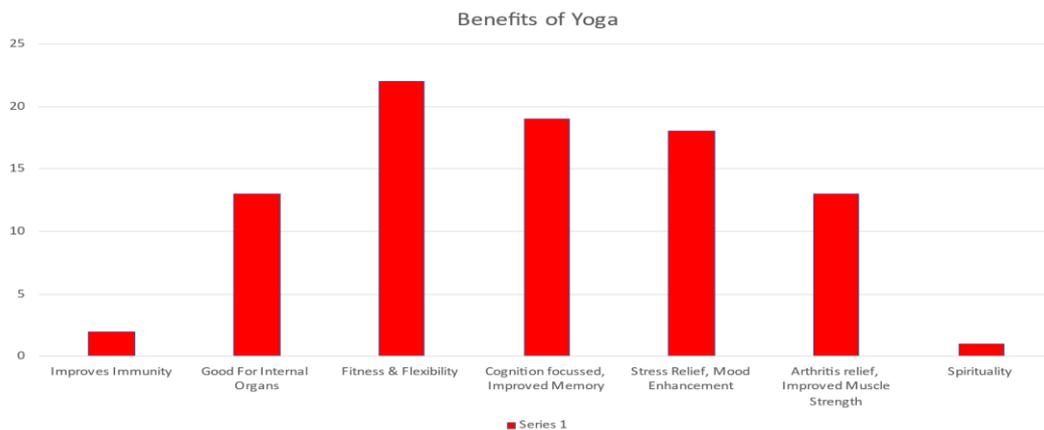


Figure 5

91.5% of the students reported noticeable change following Yoga practice and 8.5% of the students reported no change. (Table 2, Fig. 6)

Table 2

Item	Yes	No
Noticeable Change following Yoga	91.5 %	8.5 %

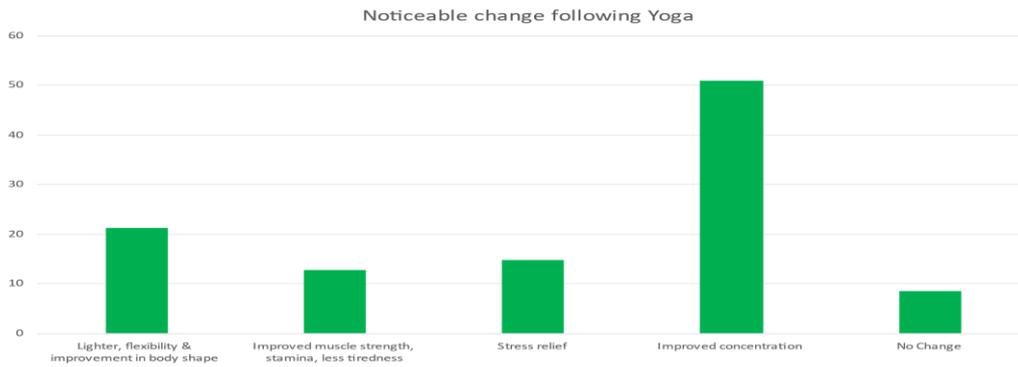


Figure 6

48.9% of the students reported challenges and inhibition in doing Yoga whereas 46.8 reported no challenges and 6.3% of the students were indifferent. (Fig.7)



Figure 7

With respect to the benefits of Yoga in studies 79.6% of the students reported improved concentration, 12.2% reported improved memory, 4.1% reported other benefits and 4.1 % reported no change. (Fig 8)

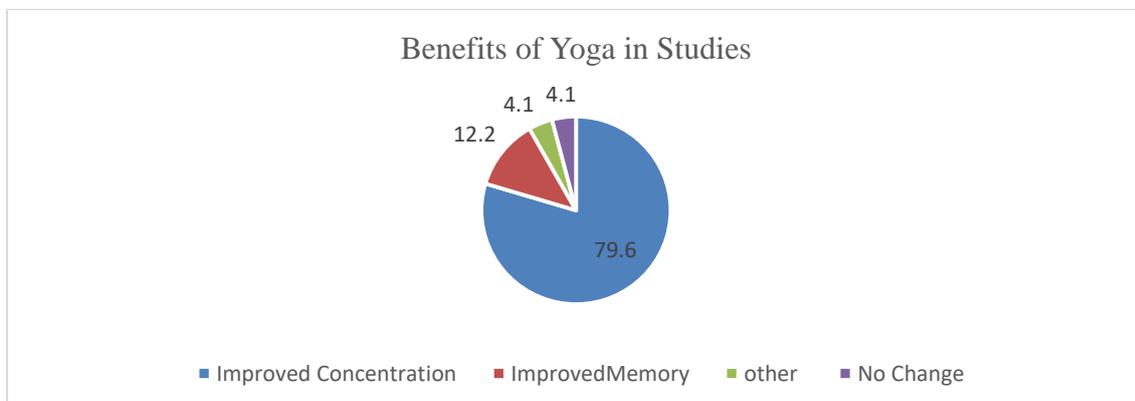


Figure 8

About 97.8% of the students reported effective role of Yoga in overcoming stress, none reported no role and 2.2% were indifferent.

**Table 3. Role of Yoga in Overcoming Stress**

Item	Yes	No	Indifferent
Role of Yoga in Overcoming Stress	97.8%	Nil	2.2

46.8% of the students reported awareness about the Yogic Diet and 53.2% were unaware about the Yogic Diet. (Fig.9). Except for 2.12% of students, 97.8% of the students reported role of Yoga to bring lifestyle changes through actions at different levels of body.



**Figure 9**

## Discussion

Yoga is a form of mind – body fitness that involves a combination of muscular activity and internally directed mindful focus on awareness of the self, breath and energy (6). Yoga is globally recognized after the proposed resolution to establish June 21 Summer Solstice as international Yoga Day. On this day Yoga is practiced world – wide in schools, colleges, offices and public place but the continuity of Yoga practice is breached by ignorant attitude of the health seekers. It is possible to analyse the health seeking behaviour in the population about the importance, awareness and the practice gap of Yoga in

the form of Standard or Self questionnaire. A knowledge - practice gap is failure to adopt the Yoga practice despite the knowledge that it promotes health.

A cross sectional study based on the data collected from the National Health Interview survey at the Centre for Disease Control and Prevention in the United States has highlighted the prevalence of Yoga and the Conventional Medical System (7).

Stress is a feeling of emotional or physical tension and the body’s reaction to challenge. Students of all age groups face stress and health problems because of the

absence of workouts. Among all the student, the medical students have to work hard in terms of practice, learning skills, attitudes, ways of communication etc. The average medical Student undergoes sleepless nights, for assessments, clinical tasks, case presentations which leads to anxiety stress and health problems (8). Each professional course is precious for the faculty curriculum builders and the students while the first-year undergraduate students are the most stressed one because of immediate change to medical environments, hostel life and introductory sessions by the seniors (9). Yoga is a form of mind – body exercise practiced as widespread therapy to maintain wellness. The present study substantiates the importance and awareness of Yoga among the first-year undergraduate students. 100% of the students are aware that Yoga is good for health and 91.5% of the students practiced Yoga in their life with a practice gap of 8.5%. 55% of the students were in the habit of performing Yoga either daily or alternately. This is analogous to the study conducted by Nadig and Shah that reported 92% of the dental students had the knowledge about the benefits of Yoga whereas only 35% had the habit of doing Yoga and 36% had ever visited a professional therapist (10).

The present study demonstrates that 46.8% of the students reported that Yoga provides fitness and flexibility. The study conducted by Kathapillai M. demonstrated that 89.26% of the students reported the effectiveness of Yoga to provide fitness to the body. In the present study 51.1% of the students reported improved memory, concentration after doing Yoga which is similar to a study conducted by Sefyia KM (6). A study conducted by Shrestha *et al*

demonstrated that 83.2% agreed Yoga is the reason for good mind 70-80% reported Yoga provides fitness to the body and 51.1% report it is good for internal organs which is analogous to our study (8). In the present study, 97.8% of the students reported that Yoga is important for lifestyle changes by promoting all round development of body and mind, by coping stress, connecting body and brain, improving immunity, achieve positive and confident approach to life, calm and composed state, improve memory and concentration, overcome lethargy, tones muscle, generalized distribution of fat and improvement in the functioning of internal organs which is analogous to the study conducted by Mishra AS (11) that showed Yoga is perceived as useful lifestyle modification.

The study demonstrates that though 100% of students are aware about the goodness of Yoga and 97.8% seek it as lifestyle modification yet 48.7% of the students' reported challenges and inhibition in doing yoga. The challenges and inhibitions reported by the students were prioritising time, being too tired or unmotivated, hungry or just eaten, lack of space, environment, lack of confidence to start, limited flexibility of the body, any physical disability, busy daily schedule, being indisciplined and lack of proper knowledge and proper guidance to execute Yogic Asanas and Movements. Facing these challenges, the students become negligent towards Yoga though knowing its benefits in promoting health leading to practice gap.

Yoga being globally recognized lacks individual investment. The stretching movements of Yoga has greater

connection with soul focussing on the feelings and thoughts that arise rather than just completing the movement (9). Meditation focusses the mind on a particular thought, to train attention and awareness so as to achieve mentally clear emotional state and improved psychological balance.

The practice of Yoga to improve the health and wellbeing of students including the Medical Students is the need of the hour. Though time constraint and personal laziness and inhibition contribute to the ignorant attitude of the students towards Yoga, yet its performance is cost free requiring well ventilated room and a mat. The scale of the knowledge awareness and practice gap coupled with general acceptability of Yoga calls for integration in the academic curriculum. The positive perception about Yoga among the Medical Students should be synergised by practice

session of Yoga between the academic classes. The introduction of Yoga lectures and practical sessions in the professional Medical Course will definitely help the students to cope the stress of curricular and intra- curricular activities. As a separate topic, Yoga is already included in Physiology Course and so the practice session of Yoga should be incorporated in Medical Curriculum.

### Conclusion

By practicing Yoga, students learn to overcome stress, pay attention to their work, maintain physical and mental health and above all provide Complementary Alternative Medicine for their future Clinical practice. Henceforth, Yoga needs to be inculcated in the academic curriculum from the beginning.

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