



## Original Research Article

## Yoga practicing medical and nursing students creating a ripple effect: An experience from a Government teaching institution

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## ABSTRACT

**Background:** Yoga is scientifically validated health promotion intervention developed thousands of years ago in India. It is helpful in improving attention, memory and learning efficacy of students along with reduced incidence of depression and anxiety. Introducing yoga in medical curriculum will not only improve the health of students, it will also make them advocates of the same for their patients in future.

**Objectives:** 1. To identify the students who are practicing yoga in medical and nursing college and assess the perceived benefits of yoga practice; 2. To use yoga practicing students to create a ripple effect in the institution for yoga awareness and practice; 3. To incorporate yoga module in the Competency Based Medical Education curriculum (CBME).

**Materials and Methods:** Interventional study among all medical and nursing students. Started with a pre tested questionnaire. Descriptive statistics is used for analysis of data with Epi-Info7 software. Yoga practicing students were motivated to influence the freshers to adopt yoga (Ripple effect).

**Results:** Among 200 students 83 yoga practicing students were selected as study subjects. Among them 38% of them are practicing for more than 1 year and 25% of them for less than 1 month. 78% of students favorably perceived the health benefits of yoga. Sensitization program had influenced the students positively.

**Conclusion:** Students were aware of the importance of Yoga and all of them perceived some benefits by Yoga practice. Using yoga practicing student volunteers to create ripple effect is a novel method to spread awareness and practice.

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### 1. Introduction

Originating in India, yoga has been a traditional contemplative practice for thousands of years and came into use as a therapeutic intervention and health maintenance practice in the early 20<sup>th</sup> century.<sup>1</sup> Most people identify yoga only with asana which is the physical practice of yoga. However asanas is just one of many tools used for healing the individual. The tools of yoga include conscious breathing, meditation, lifestyle and diet changes, visualization, the use of sound etc. These tools address all dimensions of the human system: body, breath, mind, personality, and emotions.<sup>2</sup> The three components in the

practice of yoga include Asanas (gentle stretching and postures), Pranayama (exercises for breath control) and Meditation (as a mind-body intervention). In the west, a popular practice of yoga is called Hatha yoga and is an integration of asana (postures), Pranayama (breathing exercise) and meditation.<sup>3</sup>

The science of yoga is a powerful stream of knowledge, which enables the practitioners to achieve radiant physical health, serene mind, continues spiritual uplift, and creates the ability for harmonious social living.<sup>4</sup> By practicing yoga, a person is supposed to reach a state of mental calmness, where responses to favorable or unfavorable external events are very well under the individual's control, and responses are proper.<sup>5</sup> In spite of India being the birth

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place of “Yoga”, the benefits of Yoga have not reached each and every one of us. The reason could be lack of awareness, interest and misconceptions about the practice of Yoga.<sup>1,5</sup>

Students in healthcare professions often experience significant stress during their undergraduate training. In addition to coping with the normal stressors of everyday life, medical students must deal with stressors specific to the curriculum. Stress can lead to untoward outcomes regarding health, emotional wellbeing and academic performance. It often leads to self medication, depression, poor academic performance, substance abuse and even suicide.<sup>6</sup>

Studies have reported that yoga is helpful in improving states of anxiety, attention, memory, learning efficacy and depression in students. The positive results of earlier studies show relevance of Yoga in medical education.<sup>7</sup> Exposure to yoga will not only help medical students to become better practitioners of yoga, but also influence them to refer their future patients to yoga as a therapeutic modality.<sup>8</sup>

CBME provides an effective outcome- based strategy where various domains of teaching including teaching-learning methods and assessment form the framework of competencies. Keeping this objective as core ingredient, The Medical Council of India laid the basic framework for revised undergraduate medical curriculum in 2018. In the new curriculum a dedicated time has been allotted for self directed learning and co-curricular activities during the foundation course.<sup>9</sup>

So by doing this study we can analyze the level of awareness of yoga and the perceptions of its usefulness in medical and nursing students and we can use this clue to create a ripple effect in the institution for Yoga awareness and practice. Considering the importance of Yoga in medical education, we can also suggest to incorporate Yoga module in the CBME curriculum during MBBS course.

## 2. Materials and Methods

### 2.1. Study population

Study was done at Government medical and nursing college, Mysore. Study population included all medical and nursing students who were available at the time of study and willing to participate. No sampling was done.

### 2.2. Study design

Interventional study.

### 2.3. Inclusion criteria for study group

Students who are practicing yoga and willing to act as advocates of yoga to create ripple effect.

### 2.4. Exclusion criteria for study group

None.

## 2.5. Method

Institutional Ethical Committee clearance was obtained for the study. The informed consent was taken from all the study subjects.

Study had 3 phases.

Phase 1: Identification of Yoga practitioners among medical and nursing students and assessing the awareness and perceived benefits of yoga practice.

The study subjects were contacted in their respective classrooms, and the purpose of the study was explained to them. Participation was voluntary, and the respondents were assured of confidentiality. Students were given half an hour to fill the questionnaire in the classroom. No incentives were given for completion of the questionnaire. A pre designed and pre tested proforma was used to collect data. Question content included socio demographics, details of yoga practice, perceived benefits, knowledge and attitude about the yoga.

Phase 2: Motivating non practitioners using the practicing volunteers to create ripple effect.

Conducting a sensitization program for fresher's by yoga practicing medical and nursing student volunteers (practicing yoga for more than 6 months) to create ripple effect.

Phase 3: Creating and using a Yoga module to be rolled out for 2020 MBBS and Nursing students and suggesting the same to be incorporated in the CBME curriculum.

## 2.6. Statistical analysis

Descriptive statistics was used for analysis of data with Epi Info 7 software.

## 3. Results

The study was conducted on total 200 students, 100 students each from medical and nursing sections. Students were in the age group of 18-25 years, with 145 females and 55 males. Among 200 students 83 yoga practicing students were selected as study subject.

Among 83(41.5%) study subjects 33 medical students were practicing yoga and 20 of them are practicing for only less than 1 month but in nursing students 50 are practicing yoga and 27 of them are practicing for more than 1 year. Among the yoga practicing students only 13 of them are practicing daily and 47 of them are practicing 1-2 days per week. (Table 1)

Among the yoga practicing students, 65(78%) of them could attend their routine activities and academics without much stress. They could manage their work with a calm and clear mind. Students also found improvement in their academic performance and better concentration during their studies.

While considering the source of motivation for yoga practice, 37(45%) students got motivated to do yoga from

**Table 1:** Yoga practice among study subjects

Details		No. of Medical students	No. of Nursing students	Total Number (percentage)
Students with current Yoga practice		33	50	83 (41.5)
Duration of Yoga practice(Months)	<1	20	00	20(25)
	1-12	08	23	31 (37)
	> 12	05	27	32 (38)
Frequency of yoga practice (Days/Week)	≥ 5	06	07	13 (16)
	3-4	13	10	23 (28)
	1-2	14	33	47 (56)

**Table 2:** Source of motivation for Yoga practice

Motivation for doing Yoga	Medical students	Nursing students	Total (Percentage)
News paper	8	8	16(19)
Mass media/Internet	14	7	21(25)
Family	7	2	9(11)
School/College	4	33	37(45)

their college or school. Only 9 of them got interested because of the influence of family members. (Table 2)

73% of the students had good knowledge about yoga and 81% of them were having good awareness about the health benefits of Yoga. For checking the knowledge about the yoga, the questions were about the types of yoga, its components and basic steps of each. Students who have answered 2 or more questions correctly were considered as having good knowledge and others with poor knowledge.<sup>8</sup> For assessing the awareness of health benefits of yoga, if they knew more than 2 health benefits is considered as good awareness and others with bad awareness.

87% of students were interested to do yoga if it is available in the college and 72% of them are having an opinion of adding a Yoga module in the curriculum.

A half day sensitization program was conducted in our institution for first year medical students during the foundation course on 30<sup>th</sup> August 2019. Program included the introduction session with a power point presentation, sharing the basic knowledge about yoga practice. 6 volunteers from the yoga practicing study subjects (practicing yoga for more than 6 months) were invited to share their experiences about the practice.

Volunteers have delivered a speech which included their attitude towards yoga practice, the benefits they experienced after practicing and the importance of spreading the awareness among the health professionals. A voice vote was recorded after the session to know the response of the students. 90% of the students were interested to do yoga.

With the help of Yoga practicing volunteers a preliminary framework for yoga module was developed which should be accepted by the higher authorities through proper channel.

#### 4. Discussion

Today is the era of Yoga, since 2015 every 21st June is celebrated as the International Yoga Day as declared by the United Nations General Assembly during 2014 as requested by our Hon. Prime Minister of India

In the present study, among 200 students less than fifty percentages of students were practicing yoga, but 75% of them were practicing for more than a month including 32 students who are practicing for more than a year. Yoga practice helped 78% of the students for stress management, good academic performance and to achieve better concentration. Since 45% of students got motivated to do yoga from their college or schools it shows the relevance of incorporating the yoga module in the curriculum.

A study done by Srinivaas Ankamreddy et al, on Knowledge, Attitude and Practices Regarding Yoga among Medical Students in Andhra Pradesh concluded that those with a family member practicing and who were taught by a yoga teacher were likely to take up yoga. Students have a positive outlook towards yoga but need motivation. A favorable atmosphere must be created for the regular practice of yoga and experiencing its goodness will prepare medical students to encourage future patients to also avail the benefits of Yoga.<sup>8</sup>

A similar study done by Dr. Mani Kathapillai says that, since the medical students are more prone for stress during their curricular training, the knowledge and awareness about Yoga has a significant role in their life.<sup>10</sup>

Regarding the regular practice of yoga, studies have shown that some of the common barriers are related to time, lack of practical information about access to yoga classes and teachers and stereotypes related to flexibility, athleticism, and typical yoga practitioners. Motivators included athleticism, health promotion, and emotional well-being as well as the seeking of pain relief. A referral to

yoga by a medical doctor was the least-frequently cited motivator.<sup>11</sup>

Creating the awareness about yoga practice and motivating the students to do the same has a very crucial role as they can be the advocates of same for their patients in future. The present study proved that active interventions like the sensitization program by yoga practicing volunteers can influence the students positively, creating a ripple effect. Including the yoga module during foundation course will provide easy accessibility for the students to participate. After successful administration of yoga module in the college level we can suggest to incorporate it into CBME curriculum.

## 5. Conclusion

Though less than fifty percent of students were practicing yoga, all of them perceived some benefits by yoga practice. Using yoga practicing student volunteers to create ripple effect is a novel method to spread awareness and practice. A Yoga module can be developed at the college level and can be implemented in the curriculum as well.

## 6. Source of Funding

None.

## 7. Conflict of Interest

None.

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