

## AWARENESS REGARDING BENEFITS OF YOGA AMONG STUDENTS OF NATIONAL MEDICAL COLLEGE, BIRGUNJ

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**ABSTRACT****Introduction:** Yoga is a practice of mind and body that combines physical postures, breathing exercises, and meditation. Yoga helps reduce stress, lower blood pressure and heart rate. It is considered one of many complementary and integrative health approaches. Yoga brings together physical and mental discipline that may help achieve a healthy body and peaceful mind. In this study, we aim to assess knowledge and awareness regarding yoga and its benefit among preclinical students.**Methods:** This cross-sectional study includes 176 preclinical medical students of National Medical College, Birgunj, Nepal. A total of 14 self-designed close-ended questionnaires regarding knowledge and awareness about Yoga were used as a study tool. Data analysis was done using Microsoft Excel, 2010.**Results:** Among 176 preclinical students, 77.84% had the habit of practicing yoga, but only 14.20% of students continued it. About 96.59% of students knew the benefits of yoga.**Conclusions:** The result of the study reveals that there is a positive influence of practicing yoga among students. By practicing yoga, it is capable to achieve personal abilities such as stress management, attention in their works, and maintenance of physical and mental health.**Keywords:** awareness; medical students; yoga.**INTRODUCTION**

Yoga is an experiential science of human nature that enables us to realize our real selves. Yoga comes from the Sanskrit term 'Yuj' which means to join or unite. It leads to the union of individual consciousness, indicating a perfect harmony between mind and body.<sup>1</sup> Yoga deals with all aspects of the philosophy, psychology, and practicality of conscious evolution.<sup>2</sup>

Yoga not only helps in calming our brain but is also beneficial to our physical, mental, and social well-being.<sup>3</sup> Yoga is very helpful in maintaining a healthy lifestyle. The people who practice yoga and meditation regularly experience stress-free life.<sup>4</sup>

Literature report medical students find difficulty concentrating on a particular task attributed to the sheer level of stress experienced during the course.<sup>5</sup> Yoga has been found helpful in alleviating the stress level which in turn helps improve concentration and understanding.<sup>6</sup>

In spite of Nepal being the birthplace of Yoga, the benefits of Yoga have not reached each and every one of us. The

concept of Yoga has long been misinterpreted without acknowledging the numerous benefits associated with it. In the present study, we aim to report the knowledge and awareness of preclinical students regarding yoga and its benefits.

**MATERIALS AND METHODS**

It was a descriptive cross-sectional study conducted among undergraduate preclinical students of National Medical College from February to March 2021. Ethical approval was obtained from the institutional review committee of National Medical College (ref no:524/077-078). The first and second year undergraduate preclinical students of National Medical College were included. Students not willing to participate in the study were excluded.

Pretest was conducted by distributing a developed draft survey questionnaire among 10 randomly selected undergraduate students to assess its validity and reliability who were not included in the study later. A

self-administered questionnaire was developed after a thorough review of literature of previously published papers and doing a consultation with advisors, faculties, and subject matter experts. The study tool included demographic profiles and information regarding the practice, knowledge, and benefits of yoga. The questionnaire did not contain any identifying details of the students and confidentiality was strictly maintained throughout the study.

A probability simple random sampling method was used to select 176 medical students from the sampling frame. Written consent was taken from all the volunteers and then a close-ended questionnaire about the awareness and benefit of yoga was distributed to them in the classroom. The data were collected and tabulated to present the findings then the analysis and interpretation was done with the help of Microsoft Excel 2016

#### Sample size:

Sample size was calculated at 95% confidence level and 5% confidence interval. The lifetime prevalence of yoga is 13.2%.<sup>7</sup>

So,  $n = z^2pq/d^2$

$$= (1.96)^2 \times 13.2\% \times (1-13.2\%) / (0.05)^2$$

$$= 3.84 \times 0.132 \times 0.868 / 0.0025$$

$$= 175.98$$

$$= 176$$

## RESULTS

A total number of 176 students were included in the study with the age group of 20.76yrs (17-21 years). Out of the total participants, 77.84% of students had the habit of practicing yoga and 22.16% had never done it. Among them, only 14.20% of students were continuing its practice currently. About 96.59% of students had adequate knowledge of the benefit of yoga and 3.40% had no knowledge of the benefit of yoga. The maximum number of students, 92.61% thought it should be made a part of the curriculum and only 7.38% think it shouldn't be made a part of the course curriculum. (Table 1)

**Table 1: Knowledge and practice of yoga in medical students**

Attributes	Yes	Percentage	No	Percentage
Have you ever practiced yoga	137	77.84%	39	22.16%
Currently practicing yoga	25	14.20%	151	85.79%
Have knowledge of its benefit	170	96.59%	6	3.40%
Should be made part of course	163	92.61%	13	7.38%

More than half of students, 70.07% of the students agreed that the reason for doing yoga was for the fitness of their

body, 38.68% responded that by doing yoga they had a good body, 51.09% of students responded that yoga was the reason for the wellbeing of the internal organs and 83.21% of the students felt that regular yoga practice was the reason for the good mind. (Table 2)

**Table 2: Reason for doing yoga**

Reason for doing yoga	Yes	Percentage	No	Percentage
Fitness	96	70.07%	41	29.92%
Good Body	53	38.68%	84	61.3%
Good Internal organ	70	51.09%	67	48.90%
Good mind	114	83.21%	23	16.79%

Among the students who were not practicing yoga, 57.61% of students responded that its due to poor time management, 54.96% agreed it's because of laziness, 13.24% responded its due to a lack of interest in yoga and about 7.94% responded its due to lack of awareness. (Table 3)

**Table 3: Reason for not doing yoga**

Reason for not doing yoga	Yes	Percentage	No	Percentage
Lack of Interest	20	13.24%	131	86.75%
Lack of awareness	12	7.94%	139	92.05%
Laziness	83	54.96%	68	45.03%
Poor time management	87	57.61%	64	42.38%

All the students currently practicing yoga were convinced that Yoga improves overall health while exercise builds muscles and burns calories. About 78.28% of students agreed yoga was benefit for lifestyle changes like obesity, hypertension, diabetes mellitus. The majority of students, 90.90% responded that yoga had benefits on mental conditions like depression and stress. Among all the participants 64.72% responded its benefit for an orthopedic-related problem like back pain and arthritis. Around 43.18% responded to its benefit for gastrointestinal disease. However, only 34.09% agreed its benefit for thyroid-related disease. With regards to improvement done by yoga, 61.36% responded it helps to improve immunity, 60.79% improve memory, 64.72% improve concentration power and 53.40% responded it will improve body posture and balance. (Table 4)

**Table 4: Student's response towards health benefits of yoga**

Medical Conditions	Yes	Percentage	No	Percentage
Life style diseases (obesity, HTN, DM)	137	78.28%	39	21.72%
Mental condition (depression, stress)	160	90.90%	16	9.10%

Bone and joint disorder (arthritis, body pain)	114	64.72%	62	35.28%
Thyroid related disease	60	34.09%	116	65.91%
Gastrointestinal disease	76	43.18%	100	56.82%
All disease	52	29.54%	121	70.46%
Improve immunity	108	61.36%	68	38.64%
Improve memory	107	60.79%	69	39.21%
Improve concentration power	114	64.72%	62	35.28%
Improve body posture and balance	94	53.40%	82	46.60%

**DISCUSSION**

In this current age, students face so many problems including stress and other complicated problems like obesity and high blood pressure because of the absence of body workouts. Regular practice of yoga and meditation, even for a limited duration, can highly decrease the incidence of lifestyle diseases.<sup>8</sup> The present study substantiates that even though 83.21% of the students had agreed yoga practice is the reason for the good mind, 70.80% reported yoga provide fitness for their body and 51.09% reported it is the reason for good internal organ only 14.20% of students does it in regular basis and 85.79% of the students did not have the habit of practicing yoga. The findings of the study sink with the results of the study conducted by Kathapillai M on 149 students.<sup>9</sup> The reason for not doing yoga in our study is mostly due to poor time management (57.61%), laziness (54.96%), and lack of interest (13.24%) but actually, it shows poor students motivation. In the study done by Nidedha, among 100 students only 23% do it regularly.<sup>8</sup>

Among all students, medical students have to work hard in terms of practice and learning skills, attitudes, ways of communication, etc. The average medical student goes through many sleepless nights getting ready for incalculable assessments, clinical tasks, case taking, and so forth which fill them with anxiety and stress. Stress has several ill effects on health including headache, high blood pressure, increase weight, and in addition incorporate cognitive decline, and stomach-related issues.<sup>10</sup> Yoga, a form of mind-body exercise, has become an increasingly widespread therapy used to maintain wellness, treat stress, anxiety and alleviate a range of health problems like back pain, HTN, DM. A higher % (96.59%) of students are aware regarding knowledge of the benefits of yoga. A previous study done by Shreelaxmi HV, found that about 70.5% of students favorably perceived the health benefits of yoga.<sup>11</sup>

Yoga has a significant impact on stress factors and participating in yoga and meditation training is the

best way to reduce stress. 90.90% of students in our study reported yoga help to manage stress. Chronic stress increases sympathetic discharge for a longer time leading to changes in hypothalamo-pituitary axis activity, which consequently influences heart rate, blood pressure, temperature, respiratory rate, catecholamines, and corticosteroids. Longer durations of sympathetic overactivity are associated with cardiovascular morbidity and mortality. Regular practice of slow breathing exercises like pranayama for just 3 months is known to normalize autonomic function by changing sympathetic or parasympathetic activity which helps in managing stresses and many clinical conditions.<sup>12</sup>

Training of yoga asanas and pranayama for three continuous months, 1h every day in the morning by a yoga expert brought about a decline in body weight, body mass index (BMI), relieved back pain and joint pain.<sup>13</sup> In our study 64.72% of students said yoga is beneficial for reducing back pain and arthritis.

Yoga, along with relaxation, biofeedback, transcendental meditation, and psychotherapy, has been found to have a persuading antihypertensive effect.<sup>14</sup> A study from Jawaharlal Institute of Postgraduate Medical Education and Research, showed that Sukha pranayama at the rate of 6 breaths/ min decreased heart rate and systolic blood pressure in hypertensive patients within 5 min of practice.<sup>15</sup> Training yoga asanas also decreases fasting and postprandial blood sugar.<sup>13</sup> Yoga training significantly improves lung functions and strength of inspiratory and expiratory muscles.<sup>16,17</sup> Here in our study, 78.28% of students say its benefit for lifestyle-related diseases. The previous study by Amit S Mishra also showed that yoga is perceived as useful for lifestyle modifications (92.6%), but the proportion of those adopting the practice of yoga is not comparable (11.8%).<sup>18</sup>

About 61% of students responded that yoga helps to improve memory, concentration power, and immunity which is similar to a study done by Sefiya KM.<sup>19</sup> Desikachar K suggests that yoga does not treat specific diseases. It rather addresses the entirety of the individual person: the physical body, the breathing body, the mind, the personality, and the emotions.<sup>20</sup>

The use of yoga practice to improve the health and wellbeing of the medical students as they pursues the long and arduous course of a medical study. As the introduction of yoga lectures and practical sessions in medical college done by Bhavanani AB reported that Yoga sessions had helped the students adjust to college life better and also that the stress management techniques enhanced their ability to do well in curricular and extracurricular activities.<sup>15</sup> In our study 92.61% of students said it should be included in the study curriculum. As it is already

included in a physiology course, it is suggested that college management should provide practice of yoga and meditation regularly to their students.

### LIMITATION OF THE STUDY

A major limitation is the subjective nature of the study as the study relied on the information provided by the respondents, who may hide or exaggerate some information.

### CONCLUSION

As the students are more prone to stress during their clinical course, knowledge and awareness about Yoga and its benefit can play an immensely significant role. By practicing yoga it is capable to achieve personal abilities such as stress management, attention in their works, and maintenance of physical and mental health. If medical students learn about yoga in time then it can be used as a therapeutic option for their future patients.

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