

Yoga as a Tool for promotion of Mental and Physical Health Leading to Better Performance of School Children's

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Abstract

Background: Students are exposed to different standards and options and they have a lot of pressure from their parents, society and schools to perform. It is well known that the Yoga practice can improve health and mental condition, therefore it may help to improve the mind-body awareness, self-regulation and physical fitness of students.

Aim: The qualitative observational study was nested in a randomized, controlled trial studying the effects of a Yoga program offered in place of sports classes at a school.

Methods: Student interactions were done by distributing the questionnaires after the completion of a yearlong Yoga program. A formal consent was taken by their parents before the interactions. Out of the 800 students selected for the study, 700 were involved intensively in the Yoga program and the 100 students were only participated in the physical education program.

Results and Conclusion: The results indicated that all the 700 students included were enjoyed equally the Yoga classes and revealed enhancement in their memory, mental health, positive thinking and school performance. Interestingly, the other 100 students those were not involved in the Yoga practice were showed less improvements in the same. In addition, the non-responsive male and females in non-Yoga practicing group were more as compare to those who practice Yoga. Thus, the above obtained results concludes that Yoga practices in school not only good for overall health of the students, but also helped them to improve their social status as well as preventing the negative patterns observed during the juvenile transition phase of life.

Keywords: Yoga; school performance; mental health; stress

Introduction

In modern society children are exposed to different standards and options and they have a lot of pressure from their parents, society and schools to perform. Therefore, it is important for the children and young peoples to become stress free for better performance at home and schools [1]. Stress is responsible for anxiety, insomnia, muscle pain, high blood pressure, and a weakened immune system. It has been reported that stress may also lead heart problem, depression and obesity [2-4]. In addition to the above diseases stress can also lead to dental problems such as canker sores, teeth grinding, gum diseases, TMJ disorders, burning mouth syndrome and dry mouth etc [5]. According to recent reports reduced functioning abilities due to mental problems such as anxiety, depression, and behavioral

disorders have been reported in children's [6]. As per another study, the sense of expectations from young ones creates stress among them, which impacts their mental health and well-being, as well as hampers their school performance [7].

Yoga has been practiced in India since centuries and is known for physical posturing and movements includes breathing exercises, relaxation, and meditation [8] (Figure 1). The main aim of Yoga is to be unifying the self at physical, emotional, cognitive, spiritual, and social levels [9]. Though a large number of adults claimed that Yoga is beneficial to them not only for psychological well-being but also to manage the stress, still fewer studies have been published on the importance of Yoga in children [10]. Since

decade numerous articles have been published on Yoga and its effectiveness in treating various disorders in adults such as

psychological/psychiatric, depression, anxiety and insomnia [11-21].

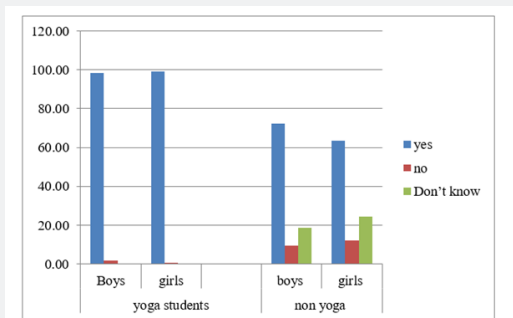


Figure 1: Comparative status of physical fitness in yoga and non-Yoga practitioners based on questionnaire.

Some studies suggested to include improved mood and reductions in stress in improvement of mental health of healthy children and adolescents [22-24]. Another study in which high school students were randomly assigned to Yoga program for 12 weeks during Physical Education (PE) showed significant pre/post improvements in resilience to stress, negative affect, anxiety, and anger control relative to control [25]. The similar group latter studies the qualitative assessment program on Yoga for high school students. In their study they conduct the qualitative interview and the study was nested in a randomized, controlled trial to observe the effects of a Yoga program instead of physical education classes at a rural public high school. In this study they observed that the children opted for Yoga program claimed for psychological benefits, stress reduction, better management of negative emotions; and optimism. In addition, most of them believed that Yoga could reduce interest in the use of drugs and alcohol and increase social cohesion with family and peers [26]. Another study suggested that the Yoga is a tool to listen to your heart and can be useful for young adults as well as children. Recently, our group also confirmed that Yoga is one of the best practices to improve the overall wellbeing and personality of children to make them capable of facing the present-day challenges and problems [27-29]. Thus, above discussion indicated that the practice of Yoga has important role in improving health and mental condition especially in case of stress and anxiety [30].

The Yoga practice in school may help to improve the mind-body awareness, self-regulation, and physical fitness. These improvements may result in the students' a good behavior, better mental state and health including their performance as well as coping with classroom stress. Therefore, in the current study we designed a randomized study to establish the relationship between practice of Yoga and its effect on health of young children.

Materials and Methods

For the current study eight hundred students were randomly selected from different schools (Government Primary & High

Schools of Haridwar area, Uttarakhand, India) among them seven hundred students were subjected to Yoga practices whereas hundred were involved in other physical activities. The overall age of students who participated in the study was 6 to 15 years and Yoga awareness Questionnaire form was filled by each of them. The study was further categorized between male and female.

The inclusion criteria included

- male and female students with age group between 6-15-year,
- willingness to participate in the study, and
- no hospitalization in the last 3 months.

The exclusion criteria included

- Physical challenge with systematic disease, any history of neurological or psychiatric disturbances and
- learning disability if any (i.e., slow learner).

Result

In the current experimental setup, we have studied the effect of Yoga on high school children. Accordingly, we have divided them into two groups i. e. Yoga practicing group and non-Yoga practicing group (physical education group) and performed the qualitative studies by distribution the questionnaires among them. (Table 1) Throughout our study we have assessed various aspects of Yoga and correlate it with the mental health, positive thinking and school performance of children. The result indicated that 98.30% male and 99.27% females in Yoga practicing group believed that Yoga helps them to feel healthy. Similarly, in non-Yoga group (involved in physical education) 72.31% male and 63.64% female also felt somewhat better however 9.23% male and 12.12% female did not find any improvement. Interestingly, a small group including 18.46% male and 24.24% female could not make any response at all (Figure 2). These results suggested that Yoga practices can play an important role in improving health of school children, when included in the school curriculum. In

case of memory improvement, we got some very interesting results as we have found 97.44% male and 98.05% female in Yoga practicing group considered that Yoga improves their memory as compare to only 38.46% male and 45.45% female in

non-Yoga practicing group. It was also observed that 94.6% male and 87.56% female in Yoga practicing group reported that Yoga releases their stress.

Table 1: Questionnaires based results from Yoga and Non-Yoga groups.

Attributes	Response	Yoga group			Non-Yoga group		
		Boys	Girls	Total	Boys	Girls	Total
Do yoga make you feel physically more healthy/fit	Yes	98.3	99.27	98.82	72.31	63.64	69.39
	No	1.7	0.73	1.18	9.23	12.12	10.2
	No response	0	0	0	18.46	24.24	20.41
Do you think/feel that Yoga has improved your memory?	Yes	97.44	98.05	97.77	38.46	45.45	40.82
	No	2.56	1.95	2.23	53.85	39.39	48.98
	No response	0	0	0	7.69	15.15	10.2
Does yoga reduce study related stress and other types of stress?	Yes	94.6	87.56	90.81	75.38	63.64	71.43
	No	5.4	12.44	9.19	16.92	18.18	17.35
	No response	0	0	0	7.69	18.18	11.22
By doing Yoga, did your overall performance in school be good?	Yes	98.3	94.63	96.33	81.54	84.85	82.65
	No	1.7	5.37	3.67	16.92	12.12	15.31
	No response	0	0	0	1.54	3.03	2.04
Does yoga brings good thoughts to your mind?	Yes	99.15	99.27	99.21	84.62	84.85	84.69
	No	0.85	0.73	0.79	12.31	6.06	10.2
	No response	0	0	0	3.08	9.09	5.1
Do you think Yoga is helpful in your mental and physical development/ improvement?	Yes	96.31	100	98.29	64.71	76.92	100
	no	3.69	0	1.71	35.29	23.8	100
	No response	0	0	0	0	0	0

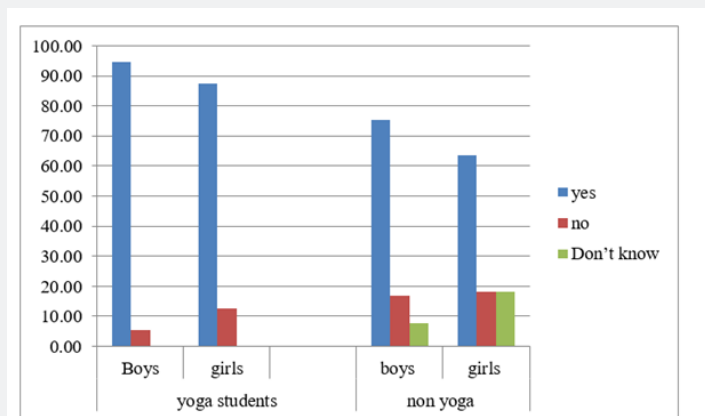


Figure 2: Comparative status of stress in yoga and non-Yoga practitioners based on questionnaire.

Similar results were obtained from 75.38% males and 63.64% females in non-Yoga practicing group (Figure 3). Regarding school performance, 98.30% male and 94.63% female in Yoga practicing group confirmed that Yoga improves their school performance likewise 81.54% male and 84.85% female in non-Yoga practicing group felt the same. Further, 99.15% male and 99.27% female in Yoga practicing group confessed that they can think more positively then before and 64.71% male and 35.25%

female in non-practicing group observed the same. Interestingly, non-responsive male and females are found more in case of non-Yoga practicing group as compared to Yoga practicing group. The positive correlation between the two groups is $r = 0.79$. Thus, the above results confirmed that the Yoga not only plays an important role in improving the lifestyle of the students but also have good effect on their social status.

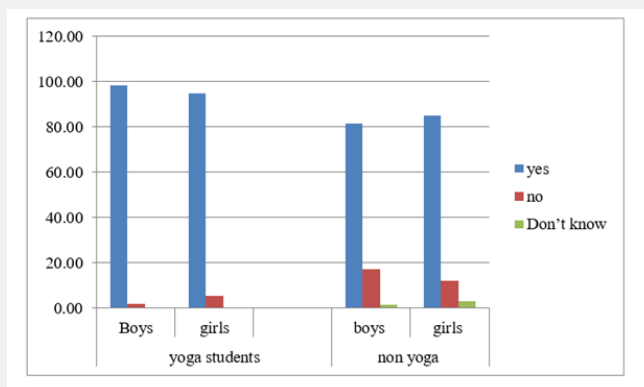


Figure 3: Comparative status of school performance in yoga and non-Yoga practitioners based on Questionnaire.

Discussion

Yoga has become the global phenomenon in recent decades due to its positive effects on various aspects of life including calmness of mind, overall health and well-being of the society. As children are more easily affected by mental and physical problems, Yoga can improve their mental health and well-being, help in developing good associations with parents and teachers, and help them to maintain the emotional, mental, and behavioral gestures [31]. In the present study we have evaluated qualitative analysis of students who were practicing Yoga for last one year at the school. We have correlated the Yoga practices with their lifestyle and our questioner was based on various aspects of Yoga practices such as

- a. The practice of Yoga within the school chart,
- b. Apparent benefits of Yoga
- c. Their involvement in a research study.

Among the 800 subjects, 700 were practicing Yoga and 100 were involved in other physical activities. Mostly all the students confirmed that Yoga improved their lifestyle in various aspects such as improved in their healthy, reduced reactivity to stressful social situations, positive thinking and memory. Even the students who were not involved in Yoga practices have also shown their interest in Yoga to improve their mental as well as physical health. During our interaction with the students they not only informed us about the good aspects of Yoga but also gave some suggestions to improve our study design in future (such as involvement of variety of classes), and how we can improve the quality of research with the improved questionnaires to get better results. In addition, they suggested to simplify some difficult postures (asanas) and/or to train them with a Yoga trainer for regulated breathing techniques (pranayamas), hand poses (mudras), and meditation. The viewpoint of the students will help us to design our future research program as some students recommended that we should not substitute the sports to Yoga in school curriculum instead we can introduce it as a separate program then it will be an added advantage for them. Though, the Yoga studies in adults have shown good effect on

their mental status and reducing their stress level. Still there is a need for such studies in children.

Improvements in self-compassion have also been reported during Yoga practice suggesting that body awareness may be a mechanism of change associated with Yoga practice [32-35]. Furthermore, in current scenario unhealthy food habits is the main problem among children and some of the students have also reported that their food habits have changed during their Yoga classes. It implies that body awareness and dietary changes are integral part of Yoga practices and can prevent obesity and unhealthy food habits in children which is also supported by other studies [36-39]. In addition, students also felt that their self-esteem has improved during Yoga practices it implies that Yoga not only benefits them to choose their desired field of interest as well as help them to take decision independently.

Interestingly, we have also observed that Yoga practices help them to get rid of their bad habits by helping them to develop strong will power. This is exciting results as their strong will power help them to get rid of telling a lie, taking drugs or other bad habits. Therefore, our findings highlight the importance of Yoga specially for improving the mental and physical health of the students, which can dramatically improve their aptitude to make positive decision, which not only affect their personal life but also have a good impact on our society.

Conclusion

Yoga has a positive impact on promotion of physical fitness, Mental wellbeing, memory level, school performance and reduces the stress level of school children. So, it can be concluded that school-based Yoga is helpful for overall development of children. There is a scope for research work in how to introduce Yoga as a curriculum in schools for the holistic child development and childhood sociology.

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