

## Contribution of yoga to the social development of children

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**Abstract:** Children are much valued resource of a nation. Yoga, the science based on ancient wisdom and culture which emphasizes harmony and integration of the personality through all stages of life. In this paper, we research to which extent yoga can help personality development by influencing thoughts and behavior of children. We describe the case study in which participated 35 children (age group 5 – 12 years) for a period of 3 months. The various components of Yogic Life for Kids were standardized. “Yogic Games” invented by The Yoga Institute, Santacruz, Mumbai were used to impart some of the required yogic traits in children.

All the aspects of a child’s personality were analyzed before and after the program. Kids Yoga camp was organized for one month at our Yoga Centre. The kids were asked to follow the teachings of the camp for next two months on their own. Feedback was taken 3 months later to check the persistability of the yogic life style among children. The results of these analyses showed significant development in behavior of 23 children out of 35 who were analysed.

**Key words:** yoga for children, short term yoga, yogic life style, yogic games, social development

### Introduction

Children are much valued resource of a nation. Improperly groomed children cannot steer the nation properly. Prior to entrusting the reigns of nation-building over to them, we need to ensure that they are groomed well to shoulder this huge task. Modern education systems provide knowledge to a great extent but most of the time fails to impart character building & moral values to children during the developmental phase of their lives.

Childhood is the time for development and growth when the child develops habits and the lifestyle is molded. The child is full of energy which needs to be expressed in a proper direction. Children were often viewed simply as small versions of adults and little attention was paid to their physical and mental development that occurs during childhood and adolescence. An understanding of child development is essential, allowing us to fully appreciate the cognitive, emotional, physical, social and educational growth but it was largely ignored throughout much of history. Interest in the field of child development began to emerge early in the 20th-century which tended to focus on abnormal behavior. Eventually, researchers became increasingly interested in other topics including typical child development as well as the influences of various factors on development.

In most of the theories, development is considered a reaction to rewards, punishments, stimuli and reinforcement. It gives no consideration to internal thoughts or feelings. Instead, it focuses purely on how experience shapes who we are.

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B. F. Skinner (1904–1990) is most noted for his theory of behaviorism or more specifically operant conditioning theory, which is based on the premise that children's behavior can be increased based on the presentation of reinforcers and decreased through punishment (Berk, 2000). Behaviorists believe that children's development is outside of their own influence, that it is shaped by environmental stimuli (Daniels & Shumow, 2003).

Vygotsky (1962) proposed that children learn through interactions with their surrounding culture. This theory, known as the socio-cultural perspective, states that the cognitive development of children and adolescents is enhanced when they work in their Zone of Proximal Development (ZPD). To reach the ZPD, children need the help of adults or more competent individuals to support or scaffold them as they are learning new things.

Social learning theory, created by Albert Bandura (b. 1925), expands on operant conditioning by adding the idea that imitation or observational learning increases the chances that children will learn new behaviors. He believed that external reinforcement was not the only way that children learned new things. Instead, intrinsic reinforcements such as a sense of pride, satisfaction and accomplishment could also lead to learning. By observing the actions of others, including parents and peers, children develop new skills and acquire new information (Baldwin, A L, 1967). By considering this aspect of child learning tendency, we thought of influencing child development by yogic practices.

Yoga is the science based on ancient wisdom and culture which emphasizes and brings harmony and integration of the human personality at all levels and through all stages of life (Pt. Radheshyam Mishra, 2009). We had a very strong belief that it will be found very effective for the proper physical, mental and behavioral development of even small children.

It is not easy to teach present day children. They live in a hurry-up world of busy parents, school pressures, video games, malls, and competitive sports. We usually don't think of these influences as stressful for our kids, but often they are. The bustling pace of our children's lives can have a profound effect on their innate joy.

Yoga can help counter these pressures. When children learn techniques for conditioning, self-health, relaxation, and inner fulfillment through yoga and other related activities like storytelling (Dr Jayadeva Yogendra, Cyclopaedia YOGA -Vol. II) they can navigate life's challenges with a little more ease.

## **Hypothesis**

Keeping in view the 'Social learning theory' for child development given by Albert Bandura, we thought of influencing child development by yogic practices.

We believed that yoga with children will offer many possibilities to exchange wisdom, share good times, and lay the foundation for a lifelong practice that will continue to deepen. Children will derive enormous benefits from yoga. Physically, it will enhance their flexibility, strength, coordination, and body awareness. In addition, their concentration, memory and sense of calmness and relaxation will improve. Doing yoga, children will exercise, play, connect more deeply with the inner self, and will develop an intimate relationship with the natural world that surrounds them. They will become more disciplined and obedient.

## **Method**

### *Sample*

For the present study, 50 children (5-12 years) were selected from middle socioeconomic family status studying in well reputed schools in India. All the parents agreed for their kids to participate in the study through a signed letter of informed consent.

### **Intervention**

A special case study program was organized with 50 children for a period of 3 months. The various components of “Yogic Life Style for Kids” were standardized by authors.

During the first month the regular yoga class was organized in which they learned the technique of various yogic practices through “Learn by Fun” technique like asanas, pranayam and kriya. The selection of yoga techniques were based on the following elements: Dharma, Jnana, Vairagya and Aishwarya (Yogendra, 2007).

The program takes into consideration eight intelligences – linguistic, logical, visual, musical, kinesthetic, naturalistic, interpersonal, and intrapersonal—and emphasizes that children should be given the opportunity to develop and embody as many of these as possible. In keeping with this theory, we integrate activities and arts that engage the “whole child development” like:

- yogic diet,
- storytelling,
- games,
- music,
- drawing.

### *Yoga asanas*

To teach asanas, we tried to play the role of a ‘facilitator’ rather than a teacher or instructor.

Simple, easy to perform yet effective asanas were selected and scheduled in such a way that each part of the body got proper stretching and bending in every direction like Sthitprarthanasana, Ekpadasana, Tadasana, Utkatasana, Hastpadasana, Vakrasana, Padmasana, Supt Vajrasana, Yogamudra, Sarvangasana, Halasana, Chakrasana, Yashtikasana etc.

After the active session of yogasanas ended with Aum chanting, children were given relaxation practices from time to time like Nishpand bhav, Shavasana and Makarasana.

### *Pranayama*

Two Pranayama, Bhramri and Anulom-Vilom, were selected as they were easy and effective.

### *Kriyas*

Kids learned some “yogic kriyas” like cleaning their ears (Karn Randra Dhauti), massaging the scalp and forehead (Kapal Randra Dhauti), cleaning the nasopharynx (Jalneti) etc.

### *Other Activities*

Every day, either before or after the asanas, a talk was conducted in which they were informed about three kinds of food viz. Satvik, Rajasic and Tamsic food.

During the camp, children played many “yogic games” developed by Yoga Institute, Santacruz, Mumbai. Each game was designed to impart a particular ‘yogic trait’ amongst children. Along with them, some more “On the spot” games were also played to improve their concentration level, focusing attitude and to vitalize and energize them.

Each day Moral stories were shared between kids and facilitator. Music and drawing was also incorporated many times during the camp.

On completion of one month of regular yoga and related classes, the children were asked to follow all which they have learned by staying at their home for the next two months.

## Questionnaire

The authors developed one written questionnaire to survey kid’s parents which was designed to determine the benefits kids had received from participation in the yoga camp organized by certified Yoga instructors. The parents were requested to fill the ‘Feedback Questionnaire’ developed by authors showing the comparative rating of their children for some physical, mental and behavioral attributes using a “5 point scale” (prepared by Ellen Taylor-Powell, Evaluation Specialist, Program Development and Evaluation, 2008) before the onset of the program and after the completion of one month. After three months they were again asked to do rating of their children for the same attributes. Parents shared their opinion and observation regarding changes in the physical, mental and behavioral aspects of their child.

## Statistical Analysis

Data from 50 parents were processed and as many as 15 returned questionnaires were disqualified for their incompleteness. Finally 35 questionnaires were analyzed.

## Observation

It has been observed (Table 1) that after one month of practice most of the children showed improvement in their physical, mental, attitudinal and behavioral traits like physical state, activity level, concentration, memory, grasping, food habits, hygienic habits, habit of sharing, calmness, discipline and obedience after 1 month (Fig. 1-10). Most of them maintained the improvement even after 3 months (Fig. 1-10), although very few reverted back to their original state (Fig. 1-10). Some children pick up the pace little slowly and showed improvements afterwards (Fig. 1-10). In all, 65% children showed improvement in most of the traits and were capable of retaining it even after 3 months.

**Table 1:** Effect of Yoga on different Physical, Mental & Behavioral attributes of Kids

S. No.	Attributes	A1M			A3M		
		Increase	Constant	Decrease	Increase	Constant	Decrease
1	Physical state	23	12	0	13	21	1
2	Level of Activity	23	11	1	5	25	5
3	Memory	20	14	1	7	28	0
4	Concentration	24	11	0	6	26	3
5	Grasping Level	20	13	2	9	26	0
6	Food Habits	23	12	0	11	21	3
7	Hygienic Habits	22	13	0	4	28	3

8	Habit of Sharing	25	10	0	6	26	3
9	Discipline	21	8	6	11	21	3
10	Obedience	18	14	3	10	22	3

## Results

For most of the physical, mental and behavioral attributes, tremendous improvement was observed after 1 month of yoga intervention (Table 1, Fig. 1-10 increase) which mostly remain maintained after 3 months (Table 1, Fig. 1-10 constant).

**Table 2:** Chi- square ( $\chi^2$ ) values for effect of Yoga on different physical, mental and behavioral attributes of kids

S. NO.	Duration	Chi-square ( $\chi^2$ )	Tabulated Value	Degree of Freedom	Level of Significance ( $\alpha$ )
1	After 01 Month (A1M)	3.39	16.919	9	0.05
2	After 03 Months (A3M)	12.218	16.919	9	0.05

## Null Hypothesis

There is no association between the number of participants showing INCREASE and those remained CONSTANT for different physical, mental and behavioral attributes (variables) of kids.

The chi-square values ( $\chi^2$ ) calculated between the number of participants showing INCREASE and CONSTANT tendency after 01 month of yoga intervention is 3.39 and after 03 months of yoga intervention is 12.218. Tabulated  $\chi^2$  for 9 degree of freedom and 0.05 level of significance is 16.919

Accepting the Null Hypothesis, we conclude that the increasing factors and constant factors of different variables of physical, mental and behavioral attributes after 01 month and after 03 months of yoga intervention are independent.

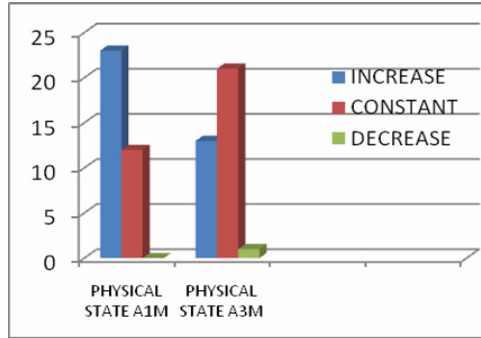
These results are in coordination with our research hypothesis.

## Effect of yoga practice on physical attributes

### *Physical state*

Yoga helps develop controlled movement, exercises every muscle and joint throughout the body, improves posture and balance and tones internal organs promoting better digestion, circulation, respiration, and joint formation.

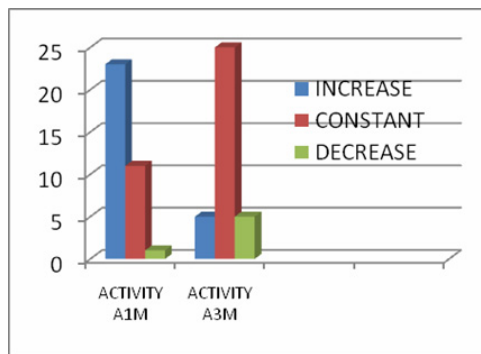
Poses like the Tadasana, Yashtikasana help to increase the height during childhood. These poses give a systematic stretch to the limbs and vertebral column. At the same time the calcium metabolism and its utilization in the body is improved. Thus it helps to improve the height and also increase the strength and flexibility of the muscles (Fig.1).



**Figure 1.** Effect of yoga on physical state

*Activity level*

Most children have complaint of being overactive at some time or another. The energy level in children is high and it is expressed in this form which needs to be directed instead for more constructive work. This energy can be controlled by the practice of deep breathing, making the child calm and quiet. Proper breathing will further help by supplying proper oxygen to all the body cells(Fig.2).

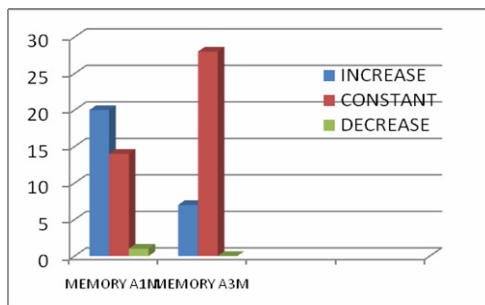


**Figure 2.** Effect of yoga on level of activity

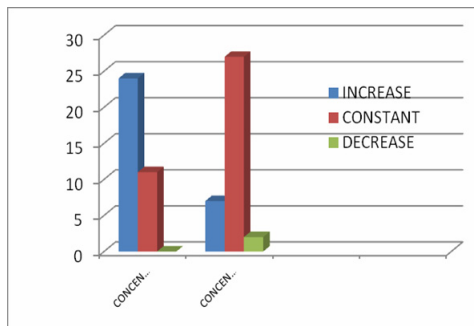
**Effect of yoga practice on mental attributes**

*Memory, Concentration and Grasping Level*

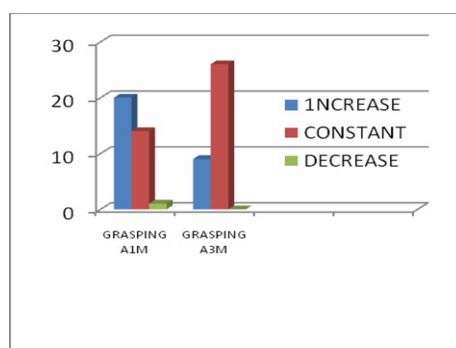
The practice of Aum chanting, Nishpandbhav and balancing poses like Ekpadasana, Sthitprarthanasana can help to improve concentration, memory and thus Neural System. Yoga helps children to calm the mind. While teaching them to concentrate they become clear-headed and alert. (Fig.3-5)



**Figure 3.** Effect of yoga on memory



**Figure 4.** Effect of yoga on concentration

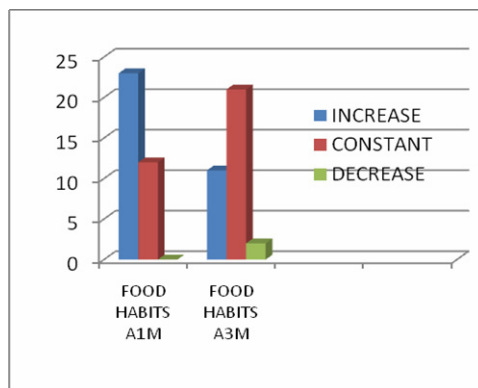


**Figure 5.** Effect of yoga on grasping level

**Effect of yoga practice on attitudinal and behavioral attributes**

*Food Habits*

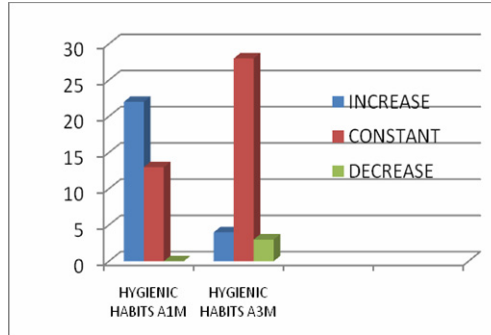
The proper nutrition of the body is essential for the further development and growth of the body and mind. Yoga helps in reducing extra fat from the various parts of the body and thus makes the child more fit and active. By promoting ‘Sattvik Food’ and avoiding ‘Junk Food’, yogic life style further reduces the chances of obesity. (Fig.6)



**Figure 6.** Effect of yoga on food habits

### *Hygienic Habits*

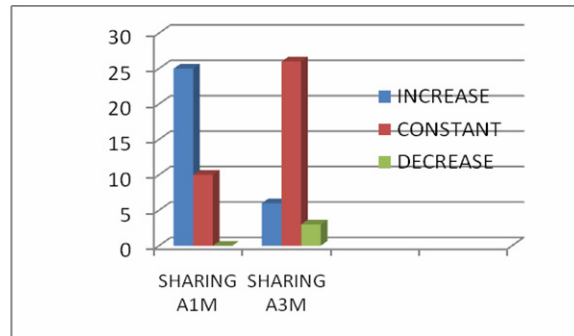
Every day talk and Yogic kriyas developed some long lasting hygienic habits in kids. They became more aware regarding cleanliness. (Fig.7)



**Figure 7.** Effect of yoga on hygienic habits

### *Habit of Sharing*

Yoga is non-competitive, develops self-esteem and confidence, and can be done with partners or in groups. It promotes cooperation, teamwork, habit of sharing and family unity especially among children of 'Nuclear Families'. (Fig.8)



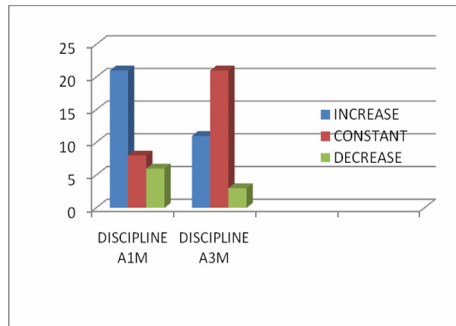
**Figure 8.** Effect of yoga on habit of sharing

### *Discipline and obedience*

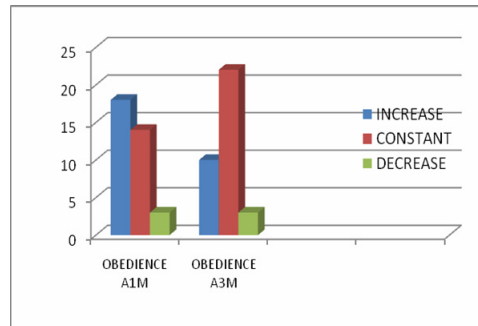
Sometimes children are too adamant, returning uncivil answers. Some of them are short tempered and have a destructive tendency. The regular practice of Aum chanting, deep breathing and relaxation will help to solve these problems. Even the practice of yoga in a group will help to develop a positive attitude and the spirit of team work. It will develop the feeling of respect and love for each other.

Yoga helps children develop self-awareness, release tension, work through their fears and be more in control of their emotions in order to effectively express them and thus make them more disciplined and obedient.(Fig. 9-10)





**Figure 9.** Effect of yoga on level of discipline



**Figure 10.** Effect of yoga on level of obedience

## Discussion

The greatest challenge with children is to hold their attention long enough to teach them the benefits of yoga. Most children love to talk and move needed in yoga. Children will jump at the chance to assume the role of animals as they are holding poses. Sound adds one more dimension to the physical experience of yoga.

When we honor the children's innate intelligence and tune in to how they were instructing us to instruct them, we began to co-create our classes. We thought of ourselves as a facilitator rather than a teacher. Guide our children while simultaneously opening our heart and letting them guide us. They have no doubt taken us into a boundless world of wonder and exploration. The teaching/learning process was continually reciprocal and provides an opportunity for everyone to create, express themselves, and grow together.

Through yogasanas we have explored many other areas like animal adaptations and behavior. Children showed much enthusiasm in learning yogic kriyas. With the help of “Story Telling”, moral education was imparted to them. We employ ecology, anatomy, nutrition, and life lessons that echo yogic principles along with fun. Most of all, our program engages the entire mind, body, and spirit in a way that honors all the ways children learn. Yoga along with music, games, storytelling, drawing—and our time together became a truly interdisciplinary approach to learning.

## Conclusion

Yoga is a great way to usher tiny tots into a healthy regimen as they can start yoga from age five which will help them establish the body-mind-spirit connection to see them sail through every sphere of life smoothly. The practice of yoga during childhood helps for self expression develops self discipline and self confidence. The communication skills of the child improve; the child develops love and compassion and learns to respect others. On the physical level it increases strength, improves the stability, flexibility, coordination and awareness of their body. It can also improve their ability to concentrate and relax. Children who practice yoga enjoy improved posture and better sleep.

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