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## ORIGINAL ARTICLE

**DOES YOGA HELP IN NOCTURNAL ENURESIS IN CHILDREN?  
-A PILOT STUDY**

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**B. Arun<sup>1</sup>, S. Rajesh Kannan<sup>2</sup>**

**Corresponding Author:** <sup>1</sup>Professor, K.G.College of Physiotherapy, Coimbatore, Tamil Nadu, India.

**Co-Author:** <sup>2</sup>Physical Director, K.G.College of Physiotherapy, Coimbatore, Tamil Nadu, India.

### **Abstract**

**Background and objectives:** Nocturnal enuresis or Bed wetting is a common problem in children. It is defined as the unintentional passage of urine during sleep. Bed wetting is normal till the age of 4yrs, continue of bedwetting over the age is due to either physical or psychological factors. Researchers found that globally around 15 % of children are suffering with it. Various treatment strategies are there to manage bedwetting; still there is no identified solution for it. The purpose of the study is to find out the effect of yoga on reduction of bed wetting frequency in children. **Methods:** 10 children with nocturnal enuresis were selected following a detailed description about the study. Structured yoga programme was taught to the children & their parents. Yoga classes were conducted on alternative days for 4 weeks. Voiding diary was given to every mother and asked them to note down the frequency of nocturnal enuresis. Following the 4 weeks of yogic practice the voiding diary reports were collected from the mother and analyzed using descriptive statistics. **Result:** The result of the study shows that there was significant improvement in the urinary control in children after structured yoga programme. **Conclusion:** This study concluded that the yoga plays a vital role in nocturnal enuresis as well as it also improves the moral boost in children.

**Keywords:** Yoga, Bed wetting, Voiding diary, Nocturnal enuresis

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## INTRODUCTION

Nocturnal Enuresis is also called as Bedwetting, Nocturnal enuresis is defined as the involuntary loss of urine during the night in children over the age of 5 years<sup>1, 2</sup>. It is mostly unconscious process during sleep. It is defined as Involuntary voiding for atleast three times in a week without any congenital defects in child over age of 5 years<sup>2</sup>. In general Bedwetting tend to run in families.

Nocturnal Enuresis is one of the major problems in young children and it is noted more in Boys. In India there are about 15 million children are affected with the problem<sup>3</sup>. Studies shows that 1.6% to 15% of children wet their bed during night, it is found that 10% to 15% of five-year-old children and 6% to 8% of eight-year-old children, and it declines to 1% to 2% by 15 years of age<sup>4</sup>.

Nocturnal enuresis is one of the common urological problems yet the causes were unknown. it was considered to be one of the most disabling problems during development. Sometimes there are other factors which influence this are neuromotor problems, attention difficulties, learning disabilities, and the possibility of being the cause of psychological status<sup>5, 6, 7</sup>.

Delvin conducted a population survey on 1800 Irish children with the age of 4—14 years and he found that 33% of children void less than once a week, 11% voids once a week and 25% voids two to four times per month<sup>8</sup>. Bed wetting will cause enormous emotional impact in child as well as their parents. Children with enuresis are commonly punished and are at the risk of emotional and physical abuse<sup>9</sup>.

Parents have to understand that bed wetting is never done on purpose or not done as laziness<sup>10</sup>. Bed wetting without day time symptoms are termed as mono-symptomatic nocturnal enuresis whereas bed wetting occurs both day and night are termed it as Non-monosymptomatic<sup>11</sup>.

Nocturnal enuresis has large impact on psychological factors in individuals which include anxiety, embarrassment, loss of self-esteem, concentration difficulty, learning difficulty and may impact the psychological status of the children<sup>12</sup>. Many children who wet the bed have a parent who did, too. Most of these children stop bedwetting on their own at about the same age of the parent<sup>13</sup>.

Most children outgrow bed-wetting without treatment. However, some child may need some additional assistance from physicians. Bedwetting is typically seen more as a social disturbance than a medical disease since it creates embarrassment and anxiety in the child and conflicts with parents. The single most important thing parents should do is to be supportive and reassuring rather than blaming and punishing. The many treatment options range from home remedies to drugs, even surgery for children with anatomical problems<sup>14</sup>. Primary management of bed wetting is behavioral modification and positive reinforcement<sup>15</sup>.

Yoga therapy was described by Indian authors 2500 years ago, it is an ancient tradition that has been westernized and often practiced for its proposed health benefits<sup>16</sup>. It often translates union of the mind, body and spirit<sup>17</sup>. Yoga helps to unite the body and mind & brings the physiological shape on emotions, thoughts and attitudes<sup>18</sup>.

Yoga is a very promising therapy for the children<sup>19</sup>. Certain yoga postures or asanas have proved to help the child to overcome the bed wetting. Though there were extensive articles on benefits of yoga in bed wetting, still there is no study is done to prove the efficacy. There is no head to head comparison of the yoga on its role on nocturnal enuresis. This pilot study tries to identify the effectiveness of yoga on the nocturnal enuresis.

## METHODOLOGY

Study was approved by the institutional ethical committee, quasi experimental study involving 10 children with nocturnal enuresis.

All the children were selected by purposive sampling method. A clear instruction was given to the mother and the children before the study was intiated. Detailed examination was done by urologist and pediatrician on the identification of any medical reason for the nocturnal enuresis. Written consent was obtained from the participants mother and oral consent was obtained from the participants. Participants mothers are also advised to involve in the yoga therapy along with their children.

Comprehensive instruction about the yoga therapy and its benefits were given to all the participants and their mothers. Study includes 10 male children with 6—10 years of age, having normal life style, history of nocturnal enuresis at least 3 times in a week, well-nourished children, school going children, those who are willing to do yoga, and those who wish to continue yoga regularly. Study not include the children with any other problems related to urinary system, higher centre dysfunctions, child with underweight and recent infections.

Yoga programme was conducted for 4 weeks of duration, and every session of the program was conducted alternate days, each session consists of 30—45 minutes of duration. All subjects were taught yoga asanas. Six asanas were chosen for this study following a detailed discussion with the stalwarts in yoga. Asanas were trained to the children and they all have to sustain for ten to fifteen counts. Aasana's trained to the children includes Konasana, Sakrasana (Standing), Yoga mudra, Sarvangasana, Savasana , Nisbandabhava. Prior to the asanas the children were taught to do Suryanamaskar for 10 mins as warm up.

The programme was conducted as a group therapy, and all the queries were cleared on every session. There was no drop out in this study. Voiding dairy is a dairy given to the mother and explained them on how to fill up the dairy. Following 4 weeks of the therapy the voiding dairy was collected from the mothers and the data were tabulated and taken for analysis.

## RESULT AND DISCUSSION

The data was analyzed by using SPSS statistical package, 19.1. The table I shows the demographic data of the children.

SN	Characteristics	%	Mean	S.D
1	Age in years		7.5	1.35
	6	30		
	7	20		
	8	30		
	9	10		
2	Food habit		7.67	1.63
	Veg	60		
3	Non Veg	40	7.5	1.29
	Family history			
	Parents have Bed wetting history	80	-	-
	Both Parents	30	-	-
	Father	30	-	-
	Mother	20	-	-

**Table 1 General Information's**

The result of the study revealed that the yoga training shown a marked reduction on bed wetting in children. Yoga helps to promote retention control training or practicing to postpone urination by few minutes can be effective. Male children are included for the convenience of the researchers, however various studies suggest that men are frequently involved than women. Voiding history was recorded in the children at night only. Study identifies that 80% Parents of the children has the family history of nocturnal enuresis, 85 % of parents punish their children for the bed wetting.

Age of Children in years	Before Yoga		After Yoga	
	Number	%	Number	%
6	2	7	1	20
6	4	13	1	20
6	4	13	0	0
7	3	10	0	0
7	2	7	0	0
8	4	13	1	20
8	3	10	1	20
8	3	10	0	0
9	3	10	1	20
10	2	7	0	0
Total	31	100%	5	100%

**Table 2** Voiding History

Bed wetting is a shameful situation for children as well as parents, but it is not a serious problem, it is a problem can be cured. This is very common in boys, Yoga play a major role in control of bed wetting, the retention exercises should be increased gradually without putting pressure on the children, and the exercises would help to increase the control in bladder muscles and also increases bladder capacity<sup>20</sup>. Yoga helps to strengthen muscles which control urination. It also helps in increasing bladder capacity.

Yoga will stimulate the nervous system, and influence the micturition system in the spinal cord lead to better control and coordination<sup>21</sup>. Yoga aids in reduction and prevention of the psychosomatic and stress related disorders<sup>22</sup>.

Various studies have found that yoga aids in improve the bladder control in urinary incontinence. It also state that yoga program improves pelvic health and helps in gain control over the urine leakage. Yoga program

directs the mind awareness and increases relaxation and relieves anxiety and stress<sup>22</sup>.

## CONCLUSION

The study confirms that the yoga training will improve the bladder control in children and it was a beneficial one for the treatment of bed wetting. Practicing yoga regularly improves flexibility in young children, it also help to improve the concentration, memory and reduces the stress level in children. However, the study was done in a small group, the results can't be generalized, and large group of participants needed. The other factors like psychological or pharmacological factors were not considered in this study, future study need a combination of all treatment.

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