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**J Gerard Arockiaraj**  
Director of Health and Physical  
Education, Spring Mount Public  
School, Tiruppur, Tamil Nadu,  
India

## An appraisal of postural distinctiveness of C.B.S.E school children in Tiruppur District

**J Gerard Arockiaraj**

### Abstract

The intention of the study was to review the Postural distinctiveness of C.B.S.E School Children in Tiruppur, Tamil Nadu. For the purpose of this study 300 Boys and 300 Girls from C.B.S.E school were preferred indiscriminately in Tiruppur. The age of the subject was ranged between 13-15 years correspondingly. To find out the Postural distinctiveness and abnormality, Percentile method were used to compute the collected data. The result showed that Bowlegs girls are lower than boys. In case of Knock Knee girls are higher than boys and in case of Flat foot girls are lower than the Boys.

**Keywords:** postural distinctiveness, bowlegs, knock knee and flat foot

### Introduction

Physiological systems are vastly adoptable to exercise. Each assignment has major physiological impact and fitness component in methodical programmed of training which brings about desirable changes in physiological factors, contributing to the improvement of functional performance in the sports. The esthetic demand of erect posture and poise cannot be denied. Good posture also advances social and economic efficiency as he/she is full of self-reliance and is able to properly interact with people. For any flourishing work, posture is imperative. Since today's children are the tomorrow's citizen, good posture at childhood may supply remarkably for every success in life. Thus, the present study on postural distinctiveness seems to have social significance. Working competence and ability depend upon good posture. Good appearance and good posture of an individual conveys good impression of his well-being. It reflects the alertness activeness, agility and wholesomeness of an individual's personality. Lack of awareness regarding the concept of proper posture and continues to follow wrong or faulty posture is one of the major causes of deformities. As has been seen that there is a possibility of postural deformities among the today's children, the purpose of this survey research is to find out the number of school going students suffering from postural deformities (i.e. knock knee, bowleg, and flatfoot) etc including thoracic back pain, pain in the heel, pain in the knee. Since no report seems to be available in this direction. Individual components of asymmetrical postural deformity tend to be considered and studied separately, however, a clear understanding of the relationship between them is essential if patterns of deformity are to be predicted and early postural management strategies implemented. In a study of prevalence of neuromuscular scoliosis Madigan and Wallace reported on a subgroup of 36 quadriplegic participants who had both windswept hip deformity and scoliosis, indicating that the femurs pointed towards the concavity of the scoliosis in 22 cases and toward the convexity in 14 cases direction of lateral spinal curvature and direction of pelvic obliquity.

### Methodology

The objective of the study was to investigate the Postural distinctiveness of C.B.S.E School Students in Tiruppur district. For this study 200 Boys and 200 Girls C.B.S.E school students were selected randomly in Tiruppur. The age of the subject was ranged between 13-15 years correspondingly. The important thing in the study was to investigate and analyze the Postural distinctiveness. The Head of the school, Physical Education Directors of various schools were contacted and explained about the study. After ensuring their cooperation, parent consent was also obtained. The investigator collected the data through the test of Flat foot Diagnosis,

**Correspondence**  
**J Gerard Arockiaraj**  
Director of Health and Physical  
Education, Spring Mount Public  
School, Tiruppur, Tamil Nadu,  
India

Knock-knee Diagnosis and Bow Leg Diagnosis. In case of Flat foot the subject stands on a smooth level surface such as smooth concrete surface. The sole of the foot that make contact the flatter the foot In more extreme cases, known as a kinked flatfoot, the centre inn edge of the footprint may actually bulge outward, where in a normal to high arch this part of the sole of the foot does not make contact with the ground at all. In case of Knock-Knee is obvious when a child stand with the legs straight and the toes pointed forward. A researcher can determine the severity of knock-knee by observing the position of the child’s legs, knee, and ankles, and by measuring the distance between the child’s inner ankle bones the greater the distance between the ankles, the more severe the condition. In the plumb line test the line inside the medial side of the foot. In case of Bow Leg is obvious when a child stands with the legs straight and the toes pointed forward. A researcher can determine the rigorousness of bow-leg by detecting the position of the child’s legs, knee, and ankles, and by measuring the distance between the child’s inner knee bones the greater the distance between the knees, the more severe the condition. In the plumb line test the line lies outside the lateral side of the foot.

**Findings**

**Table 1:** Criteria for judging the deformities of knock knees and bow legs

Name of the deformities	Deviation in CMS		
	Slight	Medium	Severe
Bow leg	0-4	5-9	10<
Knock knee	0-4	5-9	10<
Flat foot	4<	3-2	>1

**Table 2:** Students (boys) suffering from postural deformities of C.B.S.E school of Tiruppur District

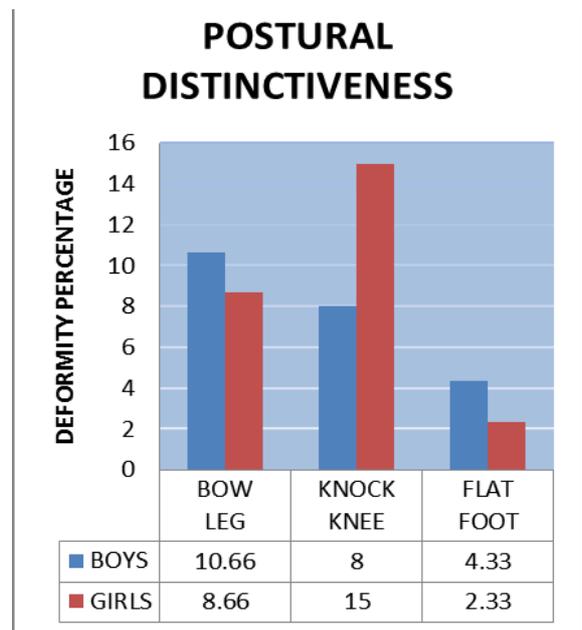
Deformities	Total Students	No of Deformities	Percentage
Bow leg	300	32	10.66%
Knock knee		24	8%
Flat foot		13	4.33%
normal		231	77%

**Table 3:** Students (Girls) Suffering From Postural Deformities Of C.B.S.E School of Tiruppur District

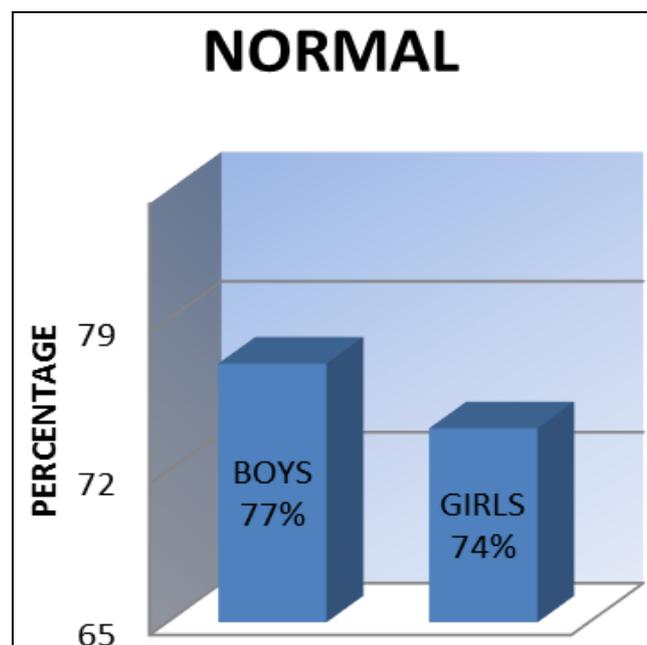
Deformities	Total Students	No of Deformities	Percentage
Bow leg	300	26	8.66%
Knock knee		45	15%
Flat foot		7	2.33%
normal		222	74%

**Table 4:** Deformities and Non Deformities Of C.B.S.E School of Tiruppur District

Deformities	Total students		No of deformities		Percentage	
	Boys	Girls	Boys	Girls	Boys	Girls
Bow leg	300	300	32	26	10.66%	8.66%
Knock knee			24	45	8%	15%
Flat foot			13	7	4.33%	2.33%
Normal			231	222	77%	74%



**Fig 1:** Chart of the Postural Distinctives among Boys And Girls Of C.B.S.E School Of Tiruppur District



**Fig 2**

### Discussion and Findings

From the above findings we came to know that out of 300 Boys Bowleg are 32 but out of 300 girls 26 are Bowlegs which is lower than boys due to low body weight and daily activity. In case of Knock Knee Boys are 24 in number but Girls are 45 in number which is higher than boys due to walking style, muscular power and stricter of knee joint. In case of flat foot Boys are 13 in number and girls are 7 in numbers which is also lower than boys due to lower weight and less Percentage of Bowleg. In case of non –Deformities Boys are 231 in number but Girls are 222 in number. Girls are more affected than the Boys to the Postural Deformities.

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