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## Comparative study of bow legs between rural & urban student's of government primary schools of Mansa District

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### Abstract

**Aim:** The aim of this study was to examine the Comparative study of Bow legs between Rural & Urban Student's of Government Primary Schools of Mansa District.

**Method:** One hundred sixty six (N=166) male students from different primary schools district Mansa were participated as subjects and they were further divided into Rural and Urban, each group was comprised of eighty three students. Bow legs were measured of rural and urban area in this study. Bow leg was measured with sliding caliper.

**Results:** A statistical significant difference and alternative hypotheses was found between bow legs of rural and urban areas of district Punjab.

**Conclusion:** It is conducted that bow leg is a part of postural deformities when we checked the bow legs between rural and urban area and significant result was found in this study.

**Keywords:** Postural deformities, bow legs, anthropometry, urban and rural

### Introduction

Posture concern the way of person carries himself while walking, lying, sitting and standing. Poor posture is the posture which results from certain muscles tightening up or shortening while others lengthen and become weak that often occurs as a result of person's daily activities. There are different factors which can impact on posture and they include biomechanical factors and occupational activities such as force and reappearance. Risk factors for poor posture also include psychosocial factors such as work stress and strain. Workers who have higher work stress are more likely to develop shoulder and neck symptoms (Banish Kumar 2016) [1]. The Genu varum (also called bow leggedness, bandiness, bandy-leg, and tibia vara), is a varus deformity marked by (outward) bowing at the knee, which means that the lower leg is angled inward (medially) in relation to the thigh's axis, giving the limb overall the appearance of an archer's bow. Generally a medial angulation of both lower limb bones (femur and tibia) is involved (<https://en.wiki>). During development, the legs present different morphological courses depending on age. In particular, at birth, the angle between the knees, that is the angle formed between the mid-longitudinal axes of the tibia and femoral, presents genu varum, is gradually aligned and then leads to genu valgum, which reaches its maximum around at age of 3 years. The genuvalgum gradually decreases to normal levels at the 9 years of age (Cozen, 1990) [2]. Bowlegs are a condition in which the knees stay wide apart when a person stands with the feet and ankles together. It is considered normal in children less than 18 months of age (<https://medlineplus>). The present study would give information about the prevalence of deformities of bow legs in the school students from different rural and urban areas at their early age so that proper remedial measures and preventive could be adopted to prevent them. The study would illustrate the existence of different postural deformities like bow legs between the rural and urban areas of district mansa would be helpful for the different non-government and government agencies to locate the causes of posture deformities of bow legs. This study would provide the insight about the significant difference that would be helpful to prevent the extension of the bow legs deformities in the other segments of the body.

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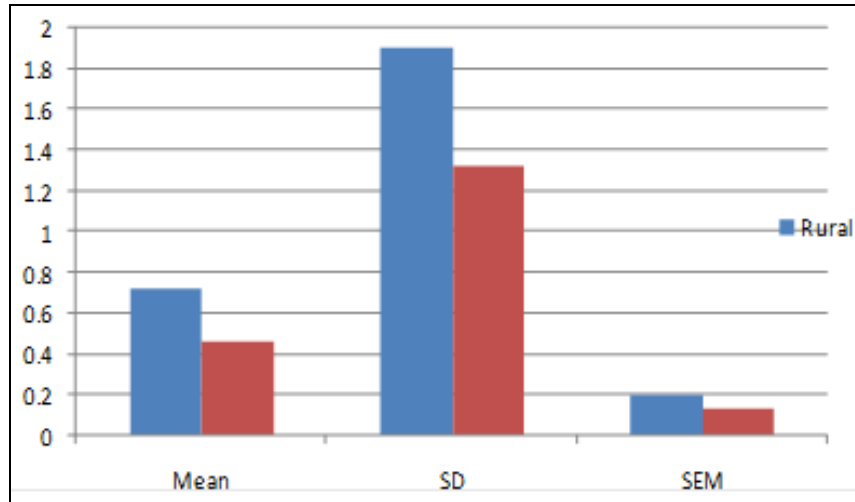
**Material and Methods**

The sample consisted of one hundred sixty six (n=166). Further we divided into 2 groups rural and urban. The sample consisted of rural group eighty three (n=83) 83 for bow legs. The age of subjects ranged between 6 to 10 years. Bow legs were measured of rural and urban area in this study. Bow leg was measured with sliding caliper. Comparison of Mean ±SD

and t-test was used to identify the location of significant differences between the bow leg deformity of rural and urban children from government primary schools in district Mansa. Pearson Correlation was used to identify the relationship among bow legs deformity of rural and urban children from government primary schools.

**Table 1:** Mean and sd value of bow legs of rural and urban children from difference government primary schools

Bow legs	Groups	N	Mean	Std. deviation	Std. Error mean	T	Sig
	Rural	83	.7241	1.90273	.20885	.999	.031
	Urban	83	.4699	1.32543	.14548		



**Fig 1:** showed mean, standard deviation and standard error mean of Bow legs variables of rural children from difference government primary schools

**Results**

Table 1 shows that the Mean ±SD value of bow legs of rural children from difference government primary schools were 7241 ±1.90273 and the Mean ±SD value of bow legs of urban government primary children were.4699 ±1.32543 The calculated p-value (.031) is less than at p< 0.05 level So, it demonstrated that there was a significant difference between rural and urban.

**Discussion**

In the present Study when we compare the postural deformities between rural and urban area of district Mansa that In this Study bow legs of rural children from difference government primary schools were more than urban government primary children. There was a significant difference between rural and urban government primary school children.

**Conclusion**

From the results of the present study, it is concluded that in this Study bow legs of rural children from difference government primary schools were more than urban government primary children. In bow legs both rural and urban children were found normal range in our study. There was a significant difference between rural and urban government primary school children in this study.

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