

SURVEY OF SELECTED POSTURAL DEFORMITIES IN SCHOOL CHILDREN OF DHULE DISTRICT, MAHARASHTRA

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ABSTRACT

The Purpose of the study was to do the comparative survey of selected postural deformities in school children of Dhule District. For this total N=300 students were selected with the mean age of (16+/-1.23) year from different schools of Dhule District. Further, the selected subjects were divided into two intervention group n=150 boys and n=150 girls. The selected postural deformities were upper limb .i.e. Kyphosis (KYH), lordosis (LDS), scoliosis (SLS) and lower limb i.e. knock knee (KNK), bow leg (BLG) and flat foot (FTF). Gird chart technique, subjective observation and paper ink were used to assess the postural deformities. Percentage was applied as statistical tool for the study. The results of the study revealed that percentage of The percentage of boys on selected postural deformities revealed that, (KYH) was 34.7 % found in Boys as well as (LDS) was found 28.7% similarly (SLS), had 15.3%, (KNK) 10%, (BLG) 6.7% and (FTF) was 4.7% boys were suffering from selected postural deformities. On the same side the percentage of girl students having the problem of postural deformities were (KYH) 25.3%, (LDS) was 18.1%, (SLS) was found to be 18%, the (KNK) was recorded 13.3%, (BLG) was seen 8.70%, and (FTF) was 16.7 found in the selected girl students of Dhule District.

Keywords: Kyphosis, Lordosis, Scoliosis, Knock Knee, Bow Leg, Flat Foot, Gird Chart.

Introduction

The ideal postural is characterize as the situation of the different body part, which mean the appropriate relationship between the various part of the body with given time, frame and space when they are investigated (Fortin C et.al.2011). The assessment of the quantitative postural strategy is relying on the position of the feet, legs, the pelvis, the spine, the shoulders and connection with the head (KovačSet.al. 2014).

The body postural is eluded by the arrangement and direction of the body fragments in vertical situation during the assessment methodology. The vertical situation of the body is relying on the strength of the muscles of the body to defeat the gravity of the earth to lift the body parts when the body in vertical position (Ćirić A et.al. 2015). The issue of postural disfigurements come in picture when the muscles in insufficient to conquer the gravity power to lift the body parts and because of this individual feel tired (Kovač S, et. al. 2015).

With this layout the work of postural deformities should be finished different a part of the body to be diagnosed. The entire a part of or different part of the body is depending upon the position of the body whenever the

postural deformities are examined. The minimum correct position of every a part of the body may be a prerequisite for correct posture during any position. Whenever the movement of activities changes it also change the position of the postural of the body. An honest posture is defined as a mixing mechanism to realize customizable body behaviour.

There are number of theories is established to take care of the right postural during which one among the common theory is ankle and hip strategies (Negrini S, et. al. 2005). This theory explained the right and healthy positioning which incorporates the well placed and stable feet and ankle while standing position, also as proper movement of the knees, hips and pelvis, further the movement of the spine, shoulder and head (Kosinac Z, 2006). Postural deformation is available mind with violation of the right posture definition in any situation or movement of the body. The common advantage of the right posture of the body is it not only improves the social appearance but also provide the economic efficiency while performing the action. This is often the indication of the confident filled with the trust and reinforce while interact with the people surrounding us. The study was the noble idea to do the postural deformities survey of

students studying in different schools of Dhule District, Maharashtra due to socioeconomically and geographical location of the region as the selected student came under tribal community with low income of the sources which are having direct effect on the selected postural deformities.

Methodology

The postural deformities survey were conducted on total (N=380) students studying in different schools of Dhule District. Further, on the subjective survey sample of (n=300) students were found to be suffered from the selected postural deformities of the study. Later on the researcher had divided the sample into two group .i.e. boys (n=150) and girls (n=150) respectively, which were the actual interventional group for this study. The mean age of selected boys and girls was (16+/-1.23) from different schools of the Dhule District. The postural deformities for the study were

upper body and lower body deformities .i.e. kyphosis (KYH), lordosis (LDS), scoliosis (SLS), knock knee (KNK), bow leg (BLG) and flat foot (FTF). Gird chart was used for the assessment of kyphosis (KYH), lordosis (LDS), Scoliosis (SLS). For assessment of knock knee (KNK), bow leg (BLG) scale and subjective method was applied. Flat foot (FTF) was measured with paper ink technique. The data obtained from the students suffering with the postural deformities were analysis with percentage method with the software SPSS version IBM 20.

Statistical Analysis & Results

The data collected on N=300 students (boys n=150, girls n=150) on selected postural deformities kyphosis (KYH), lordosis (LDS), Scoliosis (SLS), knock knee (KNK), bow leg (BLG) and flat foot (FTF) were analysis on percentage based and presented in table format is presented here.

Table 1: Percentage Analysis of Selected Postural Deformities in Boys School Children of Dhule District

S.no	Postural Deformities	Frequency (150)	Percentage
1.	Kyphosis	52	34.7%
2.	Lordosis	43	28.7%
3.	Scoliosis	23	15.3%
4.	Knock knee	15	10.0%
5.	Bow legs	10	6.7%
6.	Flat foot	7	4.7%

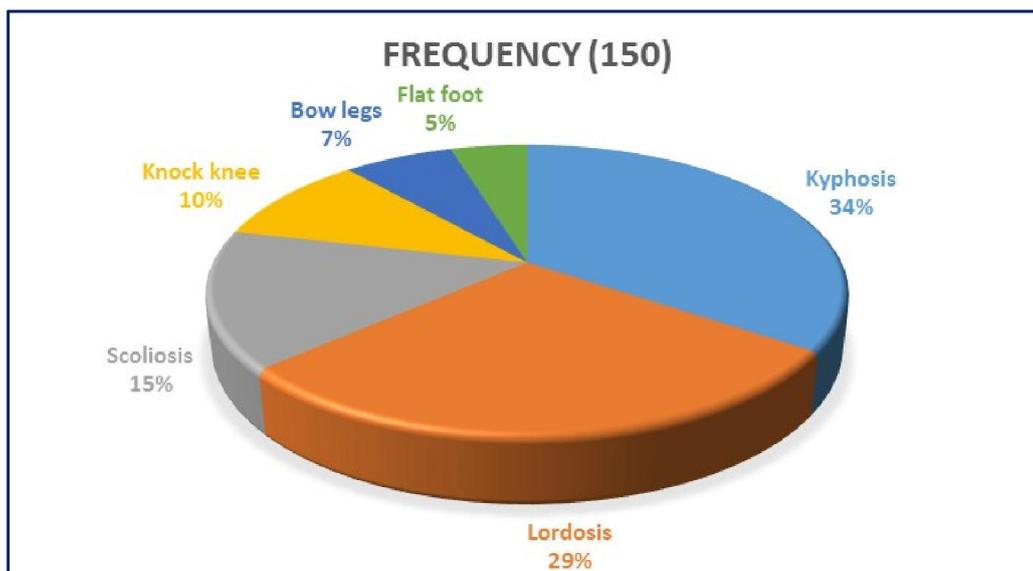


Table 2: Percentage Analysis of Selected Postural Deformities in Girls School Children of Dhule District

S.no	Postural Deformities	Frequency (150)	Percentage
1.	Kyphosis	38	25.2%
2.	Lordosis	27	18.1%
3.	Scoliosis	27	18.0%
4.	Knock knee	20	13.3%
5.	Bow legs	13	8.7%
6.	Flat foot	25	16.7%

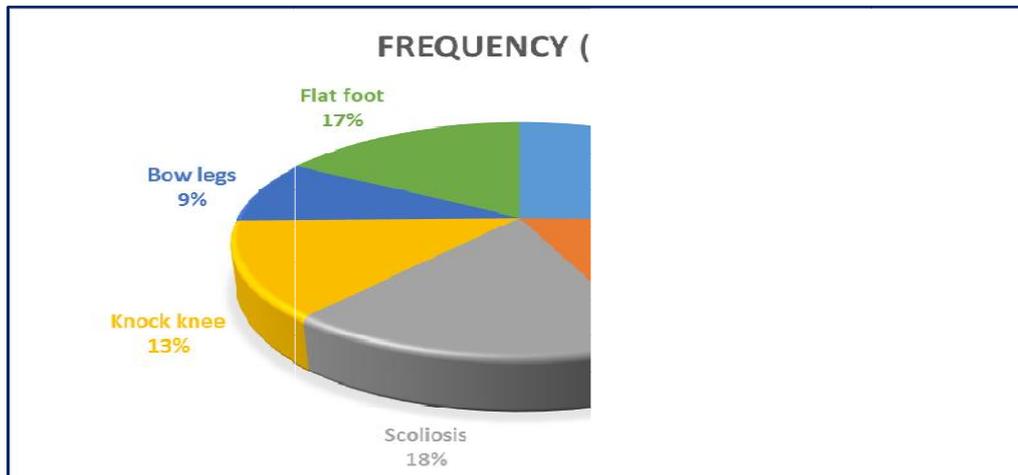
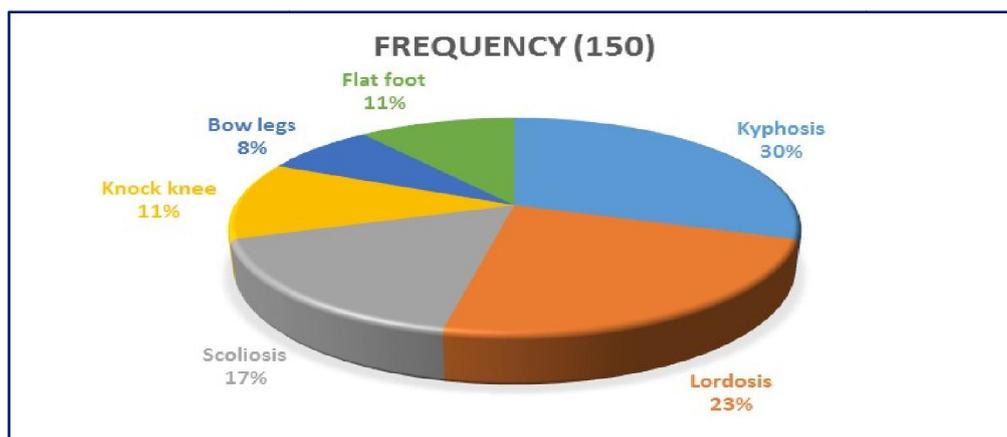


Table 3: Percentage Analysis of Selected Postural Deformities in boys & Girls School Children of Dhule District

S.no	Postural Deformities	Frequency (300)	Percentage
1.	Kyphosis	90	30.20%
2.	Lordosis	70	23.31%
3.	Scoliosis	50	16.66%
4.	Knock knee	35	11.66%
5.	Bow legs	23	7.66%
6.	Flat foot	32	10.66%



Discussion of finding

In present scenario postural deformities are considered as the one of the common problems easily observes in school going children (Jandial S, Foster HE, 2008). Several studies

were conducted in different area regarding the postural deformities among the school children (McEvoy M.P, Grimmer K, (2005).A child shouldn't have the standard adult orientation as there is greater mobility and flexibility during

development (Penha PJ, Joao SM, et. al., 2005). The child's wide range of motion can cause temporary deviations in alignment that are considered abnormal in adults (Boulay C, Tardieu C, et. al., 2005). At the same time, this flexibility somewhat protects against fixed posture misalignment (Smith A, et. al., 2008).

Most of the studies revealed that children are suffering from postural deformities from very early age. This study was carried out with similar purpose to identify the school going children of Dhule District suffering from selected postural deformities like kyphosis (KYH), lordosis (LDS), scoliosis (SLS), knock knee (KNK), bow leg (BLG) and flat foot (FTF).

The results collected from actual 300 children suffering from postural deformities highlighted that, 30.20% were found to be in problem of (KYH), 23.31% school children suffering from (LDS), 16.66% had (SLS), 11.66% had (KNK), 7.6% (BLG) and (FTF) was 10.6%. The percentage of boys on selected postural deformities revealed that, (KYH) was 34.7 % found in Boys as well as (LDS) was found 28.7% similarly (SLS), had 15.3%, (KNK) 10%, (BLG) 6.7% and (FTF)

was 4.7% boys were suffering from selected postural deformities.

On the same side the percentage of girl students having the problem of postural deformities were (KYH) 25.3%, (LDS) was 18.1%, (SLS) was found to be 18%, the (KNK) was recorded 13.3%, (BLG) was seen 8.70%, and (FTF) was 16.7 found in the selected girl students of Dhule District.

The results obtained from 300 school going subjects revealed that, most of the percentage of student were suffering from postural deformities like (KYH), (LDS), & (SLS) which are upper body postural deformities. This is due to decreased motor activity, prolonged sitting on the computer from early childhood, poor posture at school, too many backpacks, inadequate nutrition, increased traumatic lesions, congenital spinal abnormalities and spending few hours of exercise. Previously the Muscular fatigue occurs in the spine, due to these children take incorrect postural and repeated action of the movement lead toward the postural deformities in further stages (Stamenka Mitova, 2015). The similar results were found in the study of Róbert Rusnák, et. al. (2019); M. Srpoňová and Z. Hudáková (2013); J. Vajičková, (2005).

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