

POSTURAL DEFECTS AND THEIR REMEDIAL PROGRAMME

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ABSTRACT

The purpose of the study was the hypothesis stated earlier in the study the common postural defect prevalent among the boys would be lordosis, hypnosis, scoliosis and Flat-foot. The investigator had a belief that hardly any student might have any defect, but the scholar found in his research work that there are many students who suffer from different type of defects. 1400 students were selected from 2nd to 5th standard of the Vadodara Municipal corporation Primary School to evaluate their posture and to detect Lordosis, Kyphosis, and Scoliosis and Flat-foot commonly prevalent in school, students with the help of pedograph and spondylometer to identify postural deformity/deformities namely, kyphosis, lordosis, scoliosis and Flat-foot. These 'parameters' were used. From the total 1400 students 1129 students were found to have normal posture 124 students have multiple defects and 147 have single defect. Amongst the 124 subjects 49 suffered from Lordosis, 36 suffered from Kyphosis 21 from Scoliosis and remaining 41 suffered from Flat-foot. The scholar had gestured that Lordosis, Kyphosis, Scoliosis and Flat-foot were the most common deformities, among the students and it found true. The scholar also found that they were due to poverty in students' parents and poverty was the main causative factor to develop the postural deformities. 1400 subjects were surveyed among them subjects of single deformities were 147 i.e. 10.50 percentage; multiple deformities 124 i.e. 8.86 percentage; and normal postural 1129 i.e. 80.64 percentage. Among single deformities Flat-foot 41 i.e. 2.92 percentage, Scoliosis 21 i.e. 1.50 percentage, Kyphosis 36 i.e. 2.57 percentage and Lordosis 49 i.e. 3.50 percentage.

KEYWORDS: Deformity/Deformities Namely, Kyphosis, Lordosis, Scoliosis and Flat-foot

INTRODUCTION

“A Beautiful Object is a Constant Source of Joy”

How true is Keats' observation that a thing of beauty is a joy forever! Good health basically depends on good habits. Health and Better structure are mutually dependent. A man's posture is the index of his personality and good habits help develop a good posture. The early years of childhood and adolescence in an individual's life are vital stages in the process of his growth and development. A child is most impressionable and most eager and ready to learn during the period. So, for the normal development of its mind and body, it is important to provide it the right opportunities in its early life. Parents deeply influence (impact) the development of the child, especially during the early stages of its life. They transmit their own behavior codes, attitudes and values to their offspring. The child's immediate family members, sibling and peer groups also have a bearing on its learning process. Once in a school, it is exposed (openly) to carefully design learning experiences based on a set curriculum which is devised to facilitate the achievement of definite academic goals and objectives. All academic activities aim at enabling a child to become aware of the talents, sharpen its capabilities and mental faculties, realize its physical and intellectual potentialities and social skills to the maximum and ensure its

emotional wellbeing.

Posture denotes a physical position and a multi segment organism, such as the human body, cannot be expected to have a single (standard or uniform) posture. As it provides an index of one's health, posture improvement is desirable for a person to realize how it feels to stand, walk or sit the way he habitually does. Good habits also enable him to adopt a good posture while speaking, sitting, walking, standing, sleeping, lying down, etc. The manner of carrying things on the arms, the back, the shoulders or the head makes for a good posture, which is often envied. However, posture varies with age, occupation, type of activity, physique and health.

A good posture helps the body to perform activities (action) with ease and at its best the body to function properly. It can be defined as the position in which the center of gravity of each body segment is centered over its supporting base. It is chiefly dependent on maintaining the center of gravity in a correct way, an upright body, an alert whole, with the right balance and poise.

A child cannot be compelled to acquire a good posture. Any factors, either of health or the environment, that reduce muscular strength or encourage exaggerations of the spinal curve, will produce a poor posture. Children with a habitual poor posture are unhealthy, fatigued, under weight, self-conscious, fidgety etc and suffer from hearing defects, restlessness, weakness (timidity) and asthma. Functional posture flows are concomitant symptoms of illness and poor health. A malnourished child, deprived of enough caloric intakes to provide required energy, just does not have the strength to hold itself up; a poor posture is the inevitable (inescapable) result. A depressed mental attitude, chronic fatigue or an intestinal parasite might produce the same result.

The way a person carries himself makes an important impression. From his appearance, peoples draw certain conclusions about their health, their vitality and their personality. Experience teaches us to expect enthusiasm for living, initiative, self confidence and self respect from a person with an easily erect posture.

Erect posture enhances the feeling of well being. There is the ability to consciously stand well with the same joy which comes with any skill. To know that you know how to stand well, that you can and are standing well, gives a feeling of self confidence and poise.

By good posture is meant an adjustment of body parts to each other which results in an erect, alert whole, representing readiness for mental and physical effort. Body is like a machine if its parts are maintained in good

It is frequently said, "Posture expresses mental as well as Physical Status." "Posture is an index of personality." "Erect Posture is an Expression of intelligence." The Posture often proclaims the man." "Posture shows the rise and fall of nation."

Bad posture with its poor mechanics, accompanied by lack of muscle tone is a minimize threshold of fatigue and lessens the available mechanical energy. Especially in the older people exaggeration of the normal curve tends to become set in right patterns and to interfere with the normal physiology.

Spinal deviations include Kyphosis-hunch backed curvature, Lordosis-exaggerated forward curvature in the lower part of the back, and scoliosis-lateral curvature and forward tilt of the head. Pronated feet with valgus ankles and some increase of outward tibial torsion result in stress on the anterior and posterior tibial muscles with shortening of their antagonists, the personnel that can very seriously limit the success of runners and jumpers and are prone to weakened knee

conditions.

There are Several Values of Good Posture

- **Hygienic:** The erect, straight body has its organs properly set so that bodily functions are more complete, perfect and harmonious.
- **Economic Value:** May be a contributing factor for competition. Good posture can add to the work efficiency, whereas improper posture leads to decrease in work efficiency, thus affecting the economic aspects.
- **Social Value:** Fine body has a good and balanced shape and therefore highly attractive.
- **Spiritual Values:** An individual with well balanced posture brings appreciations for the creator i.e. "God" the glory of the rising sun, which has its own charm, can hardly be appreciated by a person (who walking with protruded head abdomen and flat feet) with bad posture. Good health, good looks and social value develop their own forms and performances which are their charm and beauty and are less likely to develop any of the deformities.

Hence, the scholar emphasized his research on detecting the common postural defects namely Flat-foot, Lordosis, Kyphosis and Scoliosis among Primary School Children and their Remedial Program"

METHODOLOGY

Total 1400 Children studying in 2nd to 5th standard in 35 schools of Vadodara City were selected as subjects for the investigation. Students were chosen from the various parts of the city so that the whole city was covered for an effective result; the age level of the student was 7 to 10 years. The four postural defects generally prevalent among children were selected for the study: i.e. Lordosis, Kyphosis, Scoliosis, and Flat-foot. For collection of data the Spondylometer were used to investigate the spinal column deviation and to measure the foot arch Pedograph were utilized. In order to determine the number of subjects suffering from postural defects, in relation to the population, a percentage analysis is done.

RESULTS AND DISCUSSIONS

It was observed that the subjects fell under 3 categories, i.e. Subjects suffering from single deformity, subjects suffering from multiple defects and subjects with normal posture. Details of the subjects with single deformities, multiple deformities and a normal posture are given in Table-1.

Table 1: Percentage of Subjects with Single Deformity, Multiple Deformities and Normal Posture

Deformity	No. of Subjects	Percentage
Single Deformity	147	10.50 %
Multiple Deformities	124	8.86 %
Normal Posture	1129	80.64 %

The breakup of subjects suffering from single deformities i.e. flat-foot, Lordosis, Kyphosis and Scoliosis along with their percentage is given in Table – 2.

Table 2: Percentage of Subjects Suffering from Different Postural Defects

Sr. No.	Nature of Defect	No. of Subjects	Percentage
1.	Flat-foot	41	2.92 %

2.	Lordosis	49	3.50 %
3.	Kyphosis	36	2.57 %
4.	Scoliosis	21	1.50 %

The Results of the study reveal that the number of deformed students was quite high compared to the general population in the schools. It would be seen from the survey report that in a population of 1400 boys in Govt. Schools, 271 students were found suffering from physical deformities and their percentage was more than 19%. The apparent causes for these deformities could be attributed to their poor living conditions as well as the neglectful attitude of the parents who, being illiterate, pay no attention to such deformities and seek no remedial treatment in time.

The society in which they live is equally responsible for nurturing bad habits. The parents are basically responsible for the growth and development of their children. It is natural that a child learns from his parents and is influenced by the surroundings. Thus he would instinctively imitate and copy his elders and this would ultimately spoil his own personality because of his poor habits.

Secondly, it would be admitted that good food and nutritious diet is also very essential for the development of health and the posture. It is unfortunate that the living habits of the majority the people, being sub-standard are not conducive for better living. In India the food habits vary from place to place, community to community and region. One can understand the impact of religion on the manners, living and food habits, dress etc. of the people. Generally, the poor people and those belonging to the lower strata of society are not aware of the values of the balanced and nutritious diet, which is very essential for the development and adequate growth of the children.

It is unfortunate that even in the schools the impression is that physical education is not an important subject for study compared to the other subjects taught in schools. In fact, it is the other way as “sound mind in a sound body” is a must for the best education and development of the human personality. Therefore, it is essential that physical education should be given a position of respect in the school curriculum, because, ultimately, proper physical education will help to boost the personality of a child and remove inherent defects in him, if any, with the help of remedial corrective physical exercises. Thus the number of students suffering from Flat-foot, scoliosis, kyphosis and lordosis can be reduced to a large extent, which will ultimately improve the health image of the nation. These deformities can be corrected with the help of exercises to a large extent and the correct personality of a person can be developed.

The various studies undertaken by the scholar to detect the correct and healthy posture of the subjects under study would reveal that 2.92 per cent subjects suffered from Flat-foot. Although the figure is not very high, (whatever it is), it can be further improved by timely corrective exercises.

In the case of scoliosis 1.50 per cent subjects were found to be suffering from these deformities. The Scholar had found by discussing with the subjects that they did not get the proper furniture to read and write at home and even at the school. They wrote by keeping books on the floor, which is totally incorrect and develops the deformities like scoliosis.

From the survey, it is noted that a large number of subjects suffered from kyphosis e.g. 2.57 per cent. The scholar carried the impression after seeing the subjects that this being a constitutional deformity, when any subject gains abnormal height and looks different from the class, he instinctively tries to under-play his abnormal self and thereby he unwillingly develops typical postural movements to conceal his height.

As regards lordosis 3.50 per cent subjects were found suffering from this deformity in Government schools.

Sometimes it develops due to careless treatment of Kyphosis. As the Poor class students do not get balanced and proper diet, it causes the poor muscles and when hamstring becomes weak, The Lordosis develops.

Since these are constitutional deformities and involve the proper development of bones and muscles to make a healthy and strong body; to cure these deformities requires persistent continuous training. If proper attention is paid at the school level these deformities can be controlled to a large extent. The health education and physical education should contain a program of development of posture-cum-personality of the students as these would play an important part in developing the personality of the students who are the future of any nation. A healthy nation must possess or have healthy and strong children.

Remedial Programme

Table 3

Deformity	Remedial Exercises	Asanas
Flat-foot	<ol style="list-style-type: none"> 1. Raising the toes from standing position. 2. Lying on back, bend and abduct knees, bringing feet sole to sole, hands at the sides performing "Namaste with Feet". 3. Lying on back hips flexed, with legs against wall bringing toes down as far as possible, hands kept at sides. 4. Sitting position with feet six inches apart and parallel. Hands on knees. Pick up a marble with toes of left foot and place it behind right heel. 5. Standing position: Spread towel on the smooth floor. Keep heels on the ground and hands at sides. Use toes to pull towel under foot or sole. Place a book or any weight at the end of the other end of the towel. 6. Sitting position with feet apart. Paper was spread on the floor and pressed with non-writing foot with hand on knees. Hold the pencil under the toe with its tip facing towards little finger and then to write in large strokes or bold letters. 	<ol style="list-style-type: none"> 1. <i>JANUSHIRASHANA</i> 2. <i>PASCHIMOTANASANA</i> 3. <i>AKARNA DHANURASANA</i>
Lordosis	<p><u>For the Lumbar Spine</u></p> <ol style="list-style-type: none"> (1) Tailor Sitting (2) Long sitting (3) Crook lying. <p><u>For abdominal :</u></p> <ol style="list-style-type: none"> 1) Crook lying, one hand on the abdomen and other on the chest breathe in bulging out the abdomen and breathe out forcibly through the mouth tucking in the abdomen. 2) Crook lying arms at the sides try to touch the knee to the wall. 3) Stride sitting. Trunk movements. 4) Reach long sitting. Forward bending to touch the toes. It has three effect of stretching hamstrings, stretching spine and shortening the abdominals. 5) Crook lying, cycling in the air. 	<ol style="list-style-type: none"> 1. <i>UTTANPADASANA</i> 2. <i>HALASANA</i> 3. <i>PASCHIMOTTANASANA</i> 4. <i>SHASHANKASANA</i>
Kyphosis	<ol style="list-style-type: none"> 1) Lie on the floor on your stomach and slowly raise your head as much as possible. 2) Back raising in lying position. 3) Twisting the trunk keeping both hand raising at shoulder level and twist on both the side. 	<ol style="list-style-type: none"> 1. <i>ARDHA MATSTENDRASANA</i> 2. <i>YOGMUDRA</i> 3. <i>MATSYASANA</i>
Scoliosis	<ol style="list-style-type: none"> 1) Stretch hanging on boom or wall bars. 2) Lying on the back and grasping the wall bar, try 	<ol style="list-style-type: none"> 1. <i>TRIKON ASANA:-</i> 2. <i>JANUSHIRASHAN</i>

	<p>to stretch your shoulder and relax it. Perform the same for 10 times.</p> <p>3) Stood stride standing position, stretching and relaxing – patient stretches the spine by stretching away from the wall bars, the operator gives traction from the pelvic.</p> <p>4) Head rolling.</p> <p>5) Head rotation.</p> <p>6) Head side flexion.</p> <p>7) High ride sitting trunk circling.</p> <p>8) High ride sitting trunk rotation.</p> <p>9) High ride sitting trunk side bending.</p>	
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