

Analysis of Postural Deformities among Male Students of Physical Education in Bangalore University

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Abstract – The purpose of the present study is to examine the prevalence of postural deformities of male students of physical education in Bangalore University. In this modern era of technology, people are addicted to mobile phones and other devices which have a direct impact on an individual's posture. A total of 99 students within the age group of 21-23 were selected and examined for postural deformities. New York State posture rating chart was used to assess the students. Results revealed that the shoulder (15.5%), neck (8.08%), head (4.04%) and lower back (4.04%) posture was poor in comparison to other postures. Hip (90.91%), Chest (82.83%), Feet-point (81.82%) and upper back (75.76%) posture was good when compared to the other postures. Students pursuing physical education should have special training programmes about corrective exercises, which will not only improve their posture but in turn they will educate the others with similar postural deformities.

Keywords: Postural Deformities, Corrective Exercise, Physical Education

INTRODUCTION

The upright posture which distinguishes man from all other animals is the product of perhaps 35,000 years of evolution of good posture. When physical educator talks about posture they refer to the relationship of the skeletal, muscular and nervous systems, when the body is in motion or at rest. Movement, the mechanics of human life and lack of movement and activity, is along with side effects in different ages. Technology and science are increasing and improving in recent decades in a way that made people to use machines instead of their body in fulfilling daily activities (Hefzollasan and Ghalegir, 2013). Lack of physical activities and inappropriate body posture while working and resting reshapes and deforms the structure of body and consequently makes some problems (Kohandel M, 2004). Carrying heavy backpacks increases angle of head up (Kim et al,2008). Martinez (2012) in a research on dental students found that 58% of this population has pain in their neck which was related to their improper posture and long hours of work bending their neck. Also use of non-ergonomic chairs is another cause Martinez et al (2012).

Studies show that majority of physical abnormalities are the results of muscle weakness and wrong posture, they are correctable and preventable. Hence it seems that preventing and recognition of such

phenomenon remain to be main actions. The purpose of the study was to analyze the postural defects of male students in Bangalore University.

SIGNIFICANCE OF THE STUDY:

1. The significant of the study is to examine the Postural defects among male students of physical education in Bangalore University.
2. The result of the analysis might serve to know that it would also help to give corrective exercise program for the defective postural boys, and to prevent them for its effects.
3. Further this might help to appraise further Research Studies.

HYPOTHESIS:

It is hypothesized that body poster of the selected samples may be good.

LIMITATIONS:

In this study the investigator has ignored

1. The body types

2. The relation of physique to one's health immunity from disease
3. Physical performance and personality qualities

DELIMITATIONS:

The analysis was delimited to

1. Only to male students of physical education in Bangalore University.
2. Only for the year of 2007-08 batch.
3. The use of New York state posture rating chart test only.

MATERIALS AND METHODS

This study is a descriptive and survey method. Postural deformities study was conducted using New York State Posture Rating Chart Test. The data collected were analyzed statistically to find the level of postural defects seen among the them.

THE MEASUREMENT OF POSTURE:

According to Barrow and MC Gee, New York State Posture Rating Chart Test is a valuable one to measure postural deformities.

This test was carefully devised by the NEW YORK state Physical Education Department. It includes the NEW YORK physical Fitness Test as one at the Seven Components. In the chart, a series of Thirteen posture profiles is shown in three degrees of variation, which are mentioned below:

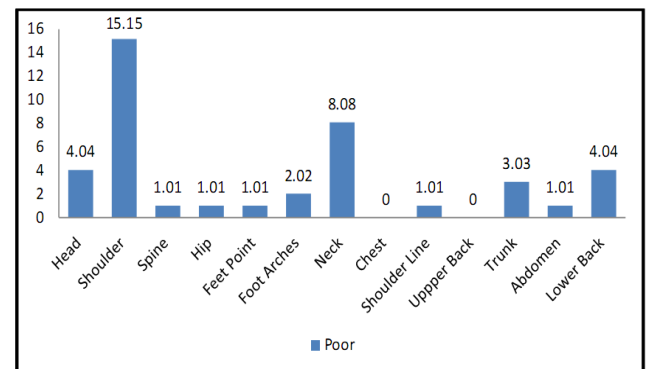
The profile includes.

1. The head.
2. The shoulder.
3. shoulder level.
4. spin.
5. hip level.
6. feet.
7. arches.
8. neck.
9. chest.
10. upper back.

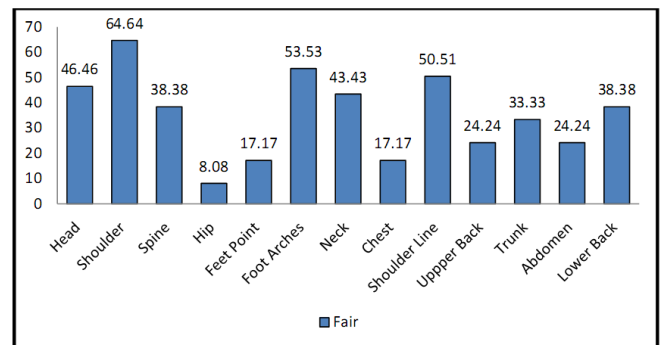
11. Trunk.
12. Abdomen.
13. Lower back.

RESULTS

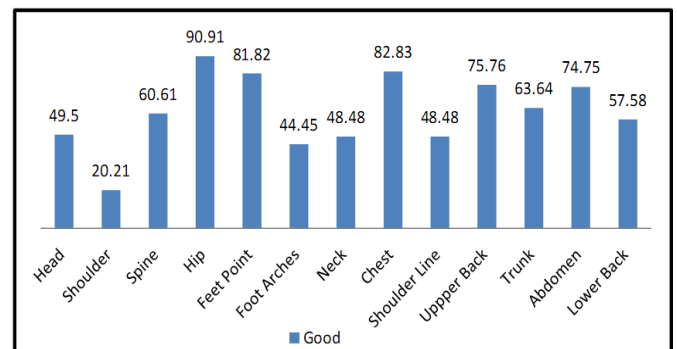
Parameter	Head	Shoulder	Spine	Hip	Feet Point	Foot Arches	Neck	Chest
Poor	4.04	15.15	1.01	1.01	1.01	2.02	8.08	0
Fair	46.46	64.64	38.38	8.08	17.17	53.53	43.43	17.17
Good	49.5	20.21	60.61	90.91	81.82	44.45	48.48	82.83



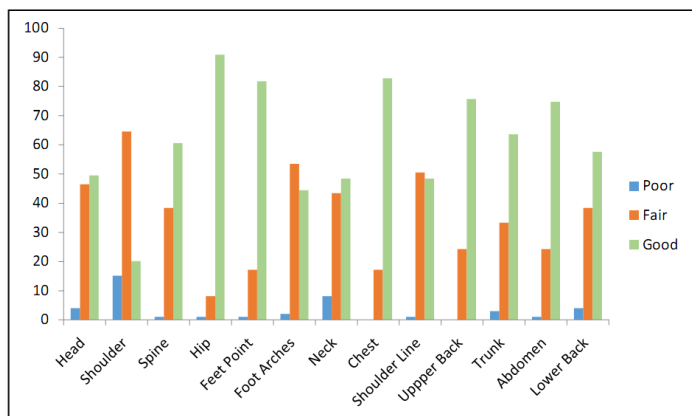
Graph 1: Showing Poor postures.



Graph 2: Showing Fair postures.



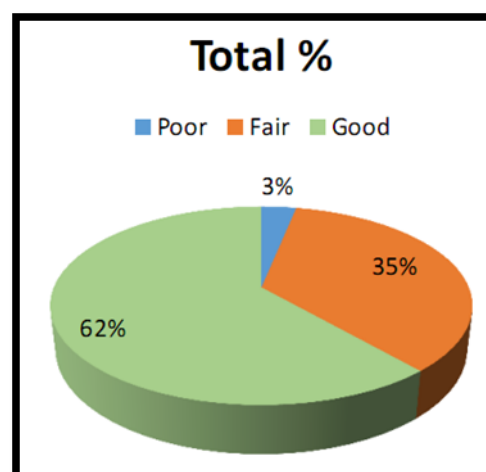
Graph 3: Showing Good postures



Graph 4: Showing Poor, Fair and Good postures

According to Graph 4.

- 1) Percentage of head posture is 4.04% (Poor), 46.46% (Fair) and 49.5% (Good),
- 2) Percentage of shoulder posture is 15.15% (Poor), 64.64% (Fair) and 20.1% (Good).
- 3) Percentage of spine posture is 1.01% (Poor), 38.38% (Fair) and 60.61% (Good)
- 4) Percentage of Hip posture is 1.01% (Poor), 8.08% (Fair) and 90.91% (Good).
- 5) Percentage of feet point is 1.01% (Poor), 17.17% (Fair) and 81.82% (Good).
- 6) Percentage of foot arch is 2.02% (Poor), 53.53% (Fair) and 44.45% (Good).
- 7) Percentage of neck is 8.08% (Poor), 43.43% (Fair) and 48.84% (Good).
- 8) Percentage of chest is 0% (Poor), 17.17% (Fair) and 82.83% (Good).
- 9) Percentage of shoulder line is 1.01% (Poor), 50.51% (Fair) and 48.48% (Good).
- 10) Percentage of upper back is 0% (Poor), 24.24% (Fair) and 75.76% (Good).
- 11) Percentage of trunk is 3.03% (Poor), 33.33% (Fair) and 63.64% (Good).
- 12) Percentage of abdomen is 1.01% (Poor), 24.24% (Fair) and 74.75% (Good).
- 13) Percentage of lower back is 4.04% (Poor), 38.38% (Fair) and 57.58% (Good).



Graph 5: Pie chart showing % break up between different postures

CONCLUSION

As per the hypothesis the study has provided positive results. Among all the postures, hip reveals 90.91% which is the highest followed by chest at 82.83%, feet point at 81.82% and upper back at 75.76%. Under fair parameter, shoulder is highest at 64.64%, followed by foot arch at 53.53%, shoulder line 50.51% and head at 46.46%. Poor posture was observed in shoulder at 15.15%, followed by neck at 8.08% and head, lower back at 4.04% each. Upper back and chest postures were considered the best among all as there was no record of poor deformity. Shoulder level shows poor posture among all.

The study concludes that overall body postures of selected male students of physical education in Bangalore university is good (62%), fair (35%) and poor (3%) as shown in Graph 5.

Selected samples were all from sports background and during the physical education course they are regularly involved in Physical Training due to which majority of them have a good posture. So participating in sports and physical activities will assist in having a good posture.

RECOMMENDATION

Identifying postural deformity is a very simple process (New York State posture rating chart), hence it can be implemented in schools for young students. The affected students can be further examined using modern technology (X-Ray, MRI, etc) to provide corrective exercises. Physical education students should have special training on postural deformity and corrective exercises. Knowledge of posture, such as cause of deformities and ill effects might be taught to all the students. Comparative study might be conducted to appraise the postural status at office,

industrial workers and business people. Similar study can be conducted to socio-economic status and posture among all categories of pupils and sex.

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