Normative Reference Values Of Dynamometric And Non-Dynamometric Trunk Performance In Young Females With Different Body Mass Index

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Abstract

Statement of the problem: It is quite beneficial to have strong trunk muscles to ensure constant effort throughout the day. When trunk muscles have enough endurance, they can slog; nevertheless, if their endurance is insufficient, they risk inflicting low back pain. One can readily forecast the development or episodes of low back pain by evaluating the performance of the trunk muscles. Purpose- To determine the normative reference values of trunk performance in young females with various body mass indices using dynamometric and non-dynamometric tests.

Methodology and Theoretical Orientation: 17 healthy female participants between the ages of 19-25 years were chosen for this cross-sectional study using a stratified random sampling method from the recognized teaching institute. Normative reference values of muscular performance were computed using the Modified Sorenson's test and the Back Leg Chest Dynamometer scores. To calculate the subjects' anthropometry and body mass index, measurements of their height and weight were collected. Everything outside that might impair muscular performance was under control.

Findings: The collected data was analyzed by using SPSS 20.0 version. Normality analysis was done using Shapiro wilk test. Descriptive and Inferential statistics was calculated afterwards. For the normal individuals Mean±SD for Dynamometric test and Non-dynamometric test is 39±4.33 and 80.66±10.03 respectively. For the overweight individuals the Mean±SD for dynamometric and Non-dynamometric test is 39.80±5.43 and 79.70±8.78 respectively. For the obese individuals the Median(IQR) for Dynamometric test is 45(17.50) and Mean±SD for Non-Dynamometric test is 77.29±11.41

Conclusion & Significance: The study concludes about the different normative reference values of different normal, overweight and obese young females. In order to detect deconditioning and create effective rehabilitation plans, the strength and endurance of the trunk musculature must be evaluated using muscular performance testing.

Biography

Dr. Neha is working as Assistant Professor at Prem Physiotherapy and Rehabilitation College, Panipat, Haryana, India. In addition, she is a Ph.D. scholar at Maharishi Markandeshwar(Deemed to be University), Mullana, Haryana, India. Her career has been built around basic and innovatory concepts in field of neurology and neurorehabilitation and her educational credits. As a budding researcher, she has 5 publications in her kitty. Dr.Neha is a superb blend of a teacher and a researcher with a substantial and extensive experience of 5 years.

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