

## ASSESSMENT OF SYMMETRIGRAPH AND GLOBAL POSTURAL SYSTEM RESULTS FOR THE POSTURE ANALYSIS OF THE HEALTHY INDIVIDUALS

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**Study Objectives:** Posture disorder is commonly seen in the society. There are some differences among the reasons; few being ergonomic deficiency in office work environment, habits, cultural and sexual differences. The primary target of our work is to determine the similarities and differences of the methods used for the healthy individuals by analyzing the results of two postures.

**Material & Methods:** In this study, the posture analysis was been made with Global Postural System (GPS) and symmetrigraph for 100 healthy individuals, 18–23 years old, between the dates of March 2015–April 2015. Posterior and lateral posture analysis was made for the individuals standing in front of the symmetrigraph and Bragg posture table was used for this analysis. Assessment of the posture was made over triple scale. With the GPS, thoracic kyphosis, lumbar lordosis angles and measurements of sagittal plane head alignment have been calculated.

**Results:** Statistical analysis shows that in between symmetrigraph results of thoracic kyphosis and ages of the participants, there are not any meaningful differences ( $p>0.05$ ). As a result of the

statistical analysis, the lumbar lordosis symmetrigraph results, there are meaningful changes with the aging of the individuals ( $p<0.05$ ). Moreover, there are not any meaningful changes with the aging of the individuals on the head position, in the sagittal plan in symmetrigraph method ( $p>0.05$ ). Only position of head in sagittal plan, results of both methods are compatible with each other. In the individuals, 20 years and older, results are higher on symmetrigraph than GPS for all perimeters.

**Conclusion:** In our study, we have determined that the angle for thoracic kyphosis for the male individuals are lower than female individuals; female individuals have lumbar lordosis angle lower than male individuals, while head position in sagittal plane has lower angle in the male individuals. When the results obtained from the studies are taken into consideration, it can be said that the results obtained from both methods do not show parallels in general. Consequently, we think that both methods can be used for posture analysis, but the number and quality of the detailed studies related to this subject should be increased.

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