

Effect of limiting eyesight on reliability in head orientation in sitting and standing postures with and without mirror

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The study was conducted to compare reliability of head orientation in sitting and standing body postures with and without mirror to determine eyesight level. Subjects consisted of 38 dental students (13 males, 25 females) with average age of 21 years 1 month. Lateral photographs were taken by a digital camera with same settings in 4 positions 1) sitting posture looking forward 2) sitting posture looking forward into the mirror 3) standing posture looking forward 4) standing posture looking forward into the mirror. Photographs were taken at two different occasions with at least 1 month interval. Angle between Glabella-Subnasale Line (GSL) and True Vertical Line (TVL) was measured from every photograph using a computer program (Photoshop 7.0). This angle was used to represent the subjects' head orientation. The results showed that the differences of the average GSL-TVL angle in sitting, sitting with mirror, standing and standing with mirror between 1st and 2nd occasion were 1.16, 0.05, 0.14 and 0.14 degrees, respectively. The Dahlberg's formula were 2.99, 2.95, 2.78 and 2.46 degrees, respectively. The study can be concluded that head orientation in standing posture can be more repeatable than that in the sitting posture. Furthermore, the use of mirror to limit eyesight may increase the repeatability of head orientation.

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