

ORAL PRESENTATION

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The Trunk Appearance Perception Scale (TAPS): a new tool to evaluate subjective impression of trunk deformity in patients with idiopathic scoliosis

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Background

Outcome assessment in idiopathic scoliosis should probably include patients' perception of their trunk deformity in addition to self-image. This can be accomplished with the Walter Reed Visual Assessment Scale (WRVAS) [1-4]. Nevertheless, this instrument has some shortcomings. These considerations prompted us to design the Trunk Appearance Perception Scale (TAPS).

Material and methods

Patients with idiopathic scoliosis and no prior surgical treatment were included. Each patient completed the TAPS and SRS-22 questionnaire and underwent a complete radiographic study of the spine [5,6]. The magnitude of the upper thoracic, main thoracic, and thoracolumbar/lumbar structural curves was recorded. The TAPS includes 3 sets of figures that depict the trunk from 3 viewpoints: looking toward the back, looking toward the head with the patient bending over and looking toward the front. Drawings are scored from 1 (greatest deformity) to 5 (smallest deformity), and a mean score is obtained.

Results

A total of 186 patients (86% females), with a mean age of 17.8 years participated. The mean of the largest curve (C_{MAX}) was 40.2°. The median of TAPS sum score was 3.6. The floor effect was 1.6% and ceiling effect 3.8%. Cronbach's alpha coefficient was 0.89; the ICC for the mean sum score was 0.92. Correlation coefficient of the TAPS mean sum and C_{MAX} was -0.55 ($P < 0.01$). Correlation coefficients between TAPS mean sum score and

SRS-22 scales were all statistically significant, ranging from 0.45 to 0.52 ($P < 0.05$).

Conclusions

The TAPS is a valid instrument for evaluating the perception patients have of their trunk deformity.

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