OP30   SELF-PERCEIVED ATTRACTIVENESS AND FACIAL SHAPE – A GEOMETRIC MORPHOMETRIC INVESTIGATION

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AIM: To investigate the effect of facial shape on self-perception of facial attractiveness.

SUBJECTS AND METHOD: The study population consisted of 321 young adults who were all dental students at Tufts University. Three-dimensional (3D) resting facial photographs of all participants were obtained using a 3D stereophotogrammetry system (3dMD, Atlanta, USA). Digitization of 3D images and geometric morphometric analysis of landmark configurations were performed using ViewBox 4 software (dHAL software, Kifissia, Greece). Assessment of participants' perception regarding their facial appearance was performed with a short questionnaire, and answers were recorded with visual analogue scales. Procrustes superimposition was applied to all 3D images, including all 1021 landmarks and semi-landmarks, and the subsequent landmark coordinates were used for analysis as dependent variables. The overall variation of the facial form (shape and size) was explored through principal component analysis. Multivariate regression analysis was performed on principal component scores to study the effect of facial form (dependent variables) on facial attractiveness (independent variable). All statistical analyses were performed at the 0.05 level of significance.

RESULTS: In the overall sample, more than 60 per cent of variability in form was explained by the first three principal components. Facial form was significantly different between genders ($P < 0.001$). In females, self-perception of facial attractiveness was affected to a larger extent by facial form than in males ($P < 0.05$). Certain facial configurations were considered more attractive than others both in males and females.

CONCLUSIONS: There are significant differences between male and female facial forms. Facial form appears to have a stronger impact on female's self-perception of facial appearance, while in males other factors, such as psychosocial status, may play a more significant role.