

Title: Perception of Age, Tiredness and Attractiveness After Isolated and Combined Facial Subunit Aging.

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Abstract:

The purpose of the present study was to determine how aging of different facial subunits, either isolated or combined, would impact perception of age, attractiveness and tiredness.

Method

A standardized frontal view facial photograph of a middle-aged woman was modified using imaging software to independently age different facial features. Sixty-six health care workers were administered a questionnaire, and presented with 15 sets of images, one baseline unmodified picture and other images containing different individual or grouped aging of facial subunits. Subjects were asked to estimate the age of the subject in the image and quantify (0-10 scale) how "tired" and "attractive" they appeared. Results were compared with scores for the baseline image. Repeated measurement one-way ANOVA and post hoc Turkey analysis were used to compare multiple variables. Facial subunits were organized following rank assignment regarding impact on perception of age, attractiveness and tiredness.

Results

The correlation coefficient between age and attractiveness had a strong inverse relationship of -0.95 confirming that age had a dependant impact on perceived attractiveness. There is also an inversely proportional relationship between tiredness and attractiveness with a correlation coefficient of -0.82. From most to least impact in age, the rank assignment for facial subunits was: full facial aging, middle third, lower third, upper third, vertical lip lines, horizontal forehead lines, jowls, upper eyelid ptosis, loss of malar volume, lower lid fat herniation, deepening glabellar furrows, deepening nasolabial folds. Statistically, brow ptosis and crow's feet did not impact age. Regarding attractiveness, the rank assignment was: full facial aging, middle third, upper third, lower third, upper eyelid ptosis, jowls, lower lid fat herniation, deepening glabellar furrows, brow ptosis, horizontal forehead lines, vertical lip lines, loss of malar volume. Statistically, deepening of nasolabial folds and crow's feet did not influence attractiveness. Regarding tiredness, the rank assignment was: full facial aging, middle third, lower lid fat herniation, upper eyelid ptosis, loss of malar volume, upper third. Statistically, lower third, jowls, deepening glabellar furrows, brow ptosis, horizontal forehead lines, vertical lip lines, deepening of nasolabial folds and crow's feet did not influence tiredness.

Conclusion

We provide a ranking system based on multiple variable statistical analyses, which can help predict which anatomical subunit will have the most substantial effect on an aged appearance.