Reviewer's report

Title: The impact of the facial skeletal class on the psychological profile: an epidemiological survey on young Italian adults.

Version: 2 Date: 24 April 2006

Reviewer: Mary Marazita

Reviewer's report:

General

The authors provide an interesting study comparing facial skeletal classes to MMPI-assessed ability to successfully manage interpersonal relationships in a sample of young adults who were applicants to a military academy. The weakness of the paper is a lack of a demonstrated connection between the MMPI-assessed ability to manage relationships and attractiveness (the core hypothesis of the study being that facial skeletal class is associated with attractiveness).

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

The authors are interested in facial attractiveness (abstract and background) but instead analyse a surrogate measure of attractiveness i.e. ability to successfully manage interpersonal relationships, --details should be provided that demonstrate that this MMPI-assessed measure indeed is an appropriate surrogate for attractiveness.

Facial skeletal classification (classes I, II, III) based on cephalometric measures was used to compare to attractiveness--it would beneficial to the reader to have a diagram or at a minimum a text description of what these classes mean. Since this is a psychiatric journal rather than a dental or craniofacial journal the reader may not know what these classifications represent. Further, is there any previous literature relating these three classes and attractiveness? The authors cite some general studies of dentofacial appearance, but then switch to facial skeletal structure instead. Finally, is there any data as to the population-based prevalence of classes I-III? is the study population representative of the general population as to facial skeletal class?

The statistical analyses of the gender specific contingency tables (Tables 1 and 2) were presented, but the chi-square and p-values from the overall data was not presented--this should be added at least to the text.

The study sample was of young people applying to a military academy--especially given the gender-specificity of the results, the characteristics of individuals applying to a military academy should be discussed: how applicable are these results to the general population? is this a high- or low-status career---might skew the type of people in the study? Presumably the fact that fewer females than males are in the study represents the applicant pool, and may bias the results. The authors have some discussion of these points but it shoudl be expanded.

An important point is a brief mention in the discussion that the psychiatric evaluation might have been biased with less beautiful subjects judged NQ more often---this necessitates a more detailed description of the MMPI adminstration and other possible sources of bias. Plus a better description in the discussion section of how a better, more unbiased study could be designed.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

Discretionary Revisions (which the author can choose to ignore)

The presentation of the data could be stronger--e.g. on tables 1 and 2 the individual cell percentages are presented however some other percentages are more interesting, for example on table 1 class III females
are 8.87% of the total data but 23% of the NQ females. This is more interesting than what is presented, i.e. that 2.4% of all subjects are in the “class III, NQ” cell.

**What next?:** Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No

**Declaration of competing interests:**

I declare that I have no competing interests.