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: 9 May 2006

Reviewer: Raymond Edler

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General
This investigation appears to identify a relationship between jaw relationship and social adequacy / inadequacy amongst females. Presumably this is associated with self-confidence, although this is merely implied. This would be an interesting finding, but unfortunately there are some methodological and conceptual problems which do not justify the conclusions drawn, as follows:

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

That many factors are involved with the ability to manage relationships, is borne out by the fact that the males were seemingly twice as likely to have psychological problems as the females, albeit unrelated to jaw relationship. This discrepancy is not discussed in the paper. The fact that those "inadequate" females tended to have jaw discrepancies could easily be coincidental and related to another factor (or several other factors) not considered in this paper. It would be essential to tackle this point and indeed, produce much more substantial evidence from the literature, that jaw relationship discrepancies are related to unattractiveness and thus to social inadequacy.

The statement is made in the Abstract that "Females seem more sensible (sensitive) to physical factors determining beauty" This assertion is not supported by any evidence.
Is there any evidence that women with "normal", i.e. class 1 jaw relations, are more attractive than others? If so, this should be presented.

What factors were involved in deciding on the sample size?
Presumably, by "facial-latero-lateral" is meant a lateral cephalogram. For the benefit of a non-orthodontic readership, a suitably labelled illustration is essential. The division of the subjects into classes 1, 2 and 3, dependent on the angle ANB is far too simplistic. An SNA of 1 to 4 would cover all three classes, yet involve jaw discrepancies too mild to substantially affect facial appearance. More extreme variations would be needed to do this, but there is no information on the range of size of the ANB angle within the three groups.

Further, the vertical proportions of the jaw should be considered. Patients with long or short faces may well not have been equitably distributed amongst the sample groups, yet a discrepancy could substantially affect the outcome. This does not seem to have been considered, yet is highly relevant, particularly in those groups (e.g. class 3 females) where the numbers are small.

The ability to manage interpersonal relationships is inadequately described, especially for any non-psychiatrist readers. Further, does this inability relate to feelings of inadequacy, or the opposite, namely arrogance? Is it legitimate to rely on just one assessment per subject, or should the clinicians' repeatability be assessed? Should they be calibrated?

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)
The psychiatrists are not named or acknowledged. There is no indication as to how many were involved.

Discretionary Revisions (which the author can choose to ignore)

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