In previous studies done on the posterior aspect of the mandible by A. C. Oettle, M Steyn and others, it became clear that the ramus flexure (fig 1), gonial eversion (fig 2) and the absolute measurement of the mandibular angle (fig 3) could not be used to predict an individual’s sex. The influences of the number and distribution of molar teeth, though, were found to be important in the metric study done on the mandibular angle. It is possible that the number and distribution of teeth rather than sex could also influence both gonial eversion and ramus flexure.

It will be desirable to compare all aspects of the posterior part of the ramus, including the ramus flexure, the gonial eversion and the gonial angle, in a 3 dimensional model with the distribution and number of teeth.

The stress patterns created by the dental occlusion in a particular individual can then be compared to the number and distribution of teeth and ultimately with the shape of the posterior aspect of the jaw. These comparisons could have implications for the mechanisms underlying the shape of the posterior aspect of the jaw.

Fig 1: Ramus flexure
Published articles on this topic:

1. Oettlé AC, Becker PJ, de Villiers E, and Steyn M. 2009. The influence of age, sex, population group and dentition on the mandibular angle as measured on a South African sample. AJPA (published on line)