

Is there a difference in response to manual cranial bone tissue techniques between participants with cervical and/or temporomandibular problems versus a control group? An explorative study

Miranda Hanskamp, BSc, MSc MT (OMT)¹, Susan Armijo-Olivo, BScPT, MScPT, PhD², Harry von Piekartz, BSc, MSc, PhD PT, MT (OMT)¹,

¹ Department of Movement and Rehabilitation Science, University of applied sciences, Osnabrueck, Germany

² Faculty of Rehabilitation Medicine, University of Alberta, Edmonton

Aim

- To determine whether manual cranial bone tissue techniques are able to discriminate between subjects with cervical and/or temporomandibular dysfunctions (TMD) and a healthy group.
- To determine the inter-rater reliability when applying manual cranial bone tissue techniques

Inclusion

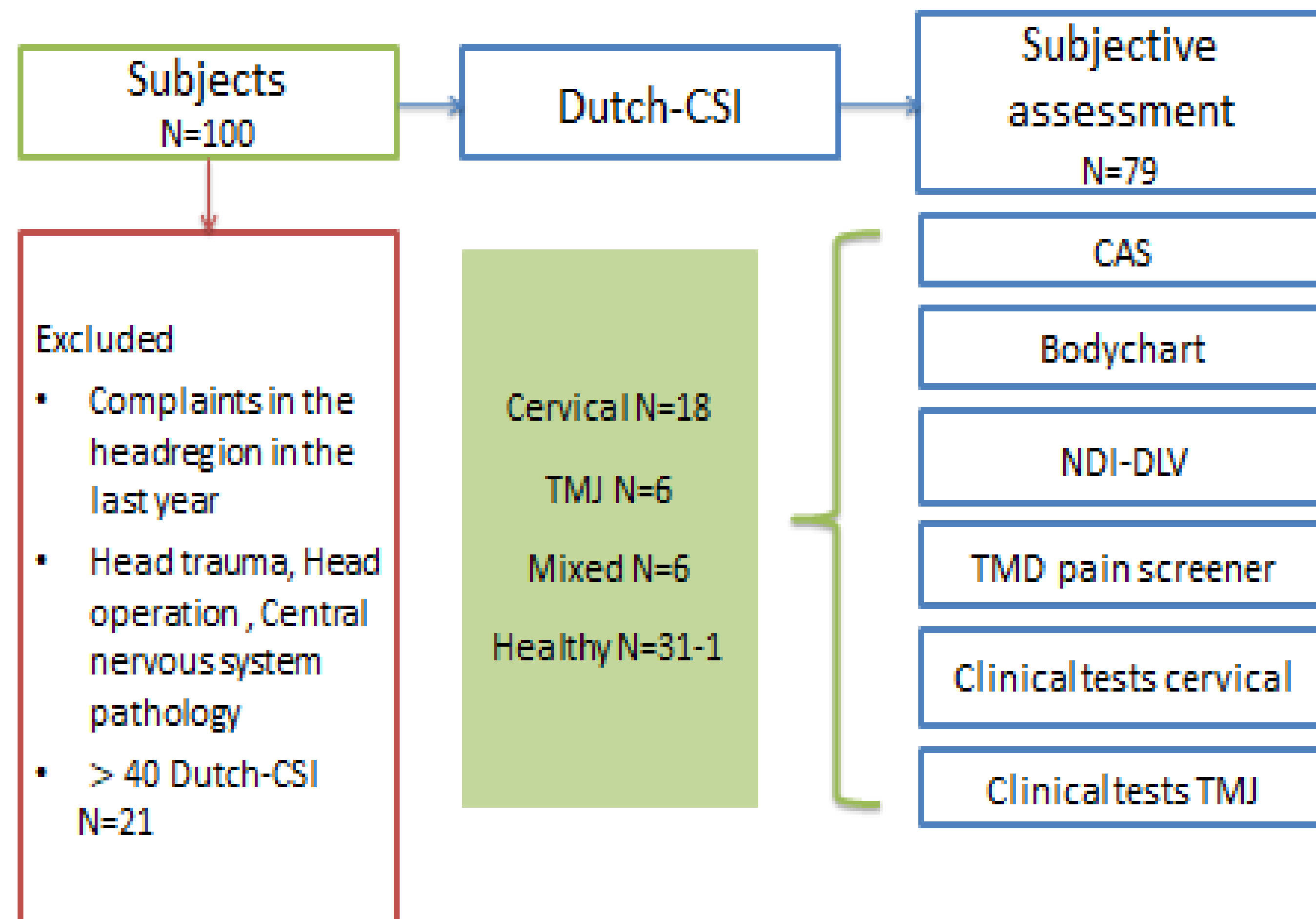


Figure 1: Flowchart of procedure of determining sample

Results

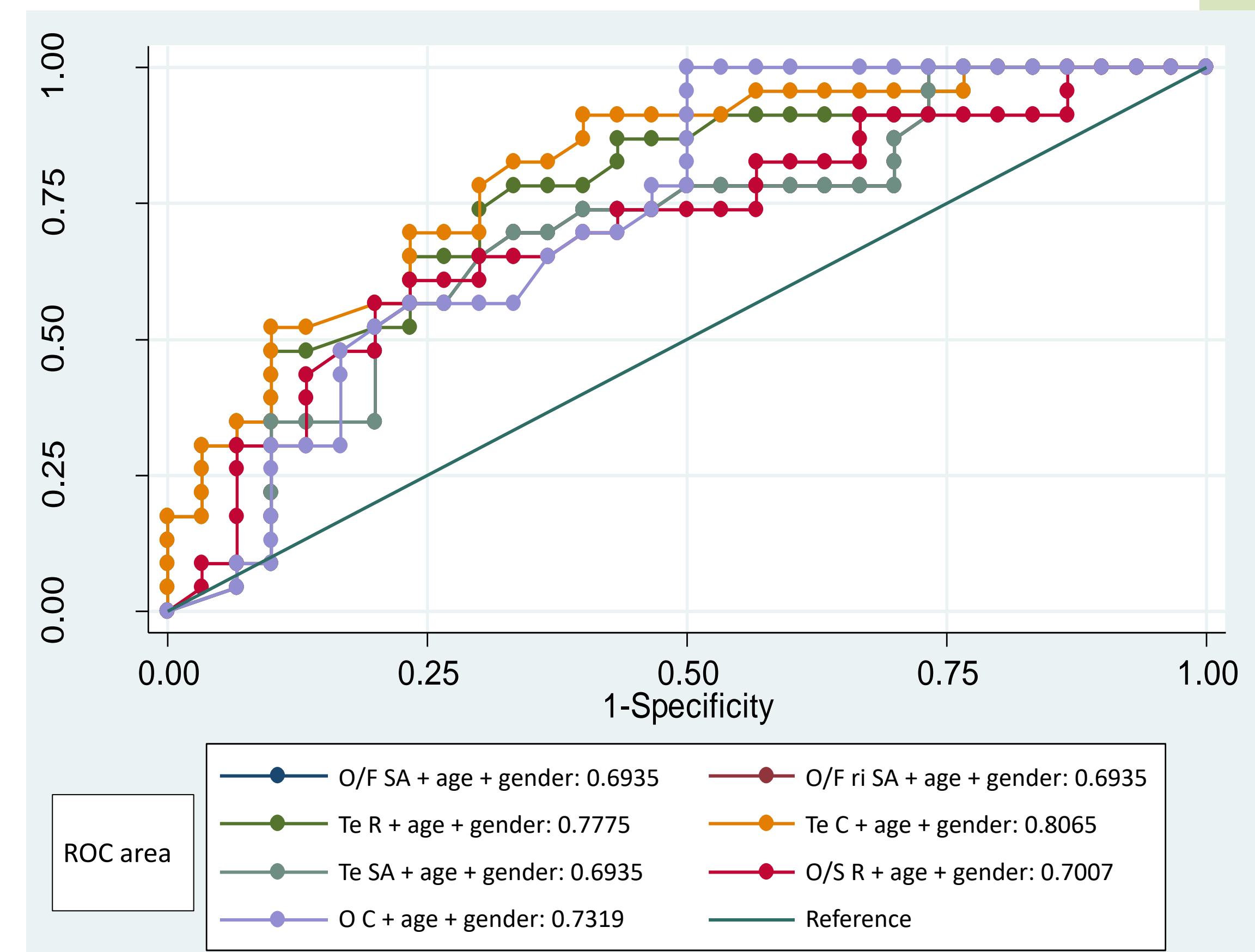


Figure 3a: ROC curve

Abbreviations: O/F= Occipital/Frontal compression; O/F ri= Occipital/Frontal diagonally from right occiput to left frontal; Te= Temporal rotation; O/S= Occipital/Sphenoid transversal lateral; O=Occiput compression
R= Resistance; C=Compliance; SA= Sensory Answer

Methods and Materials

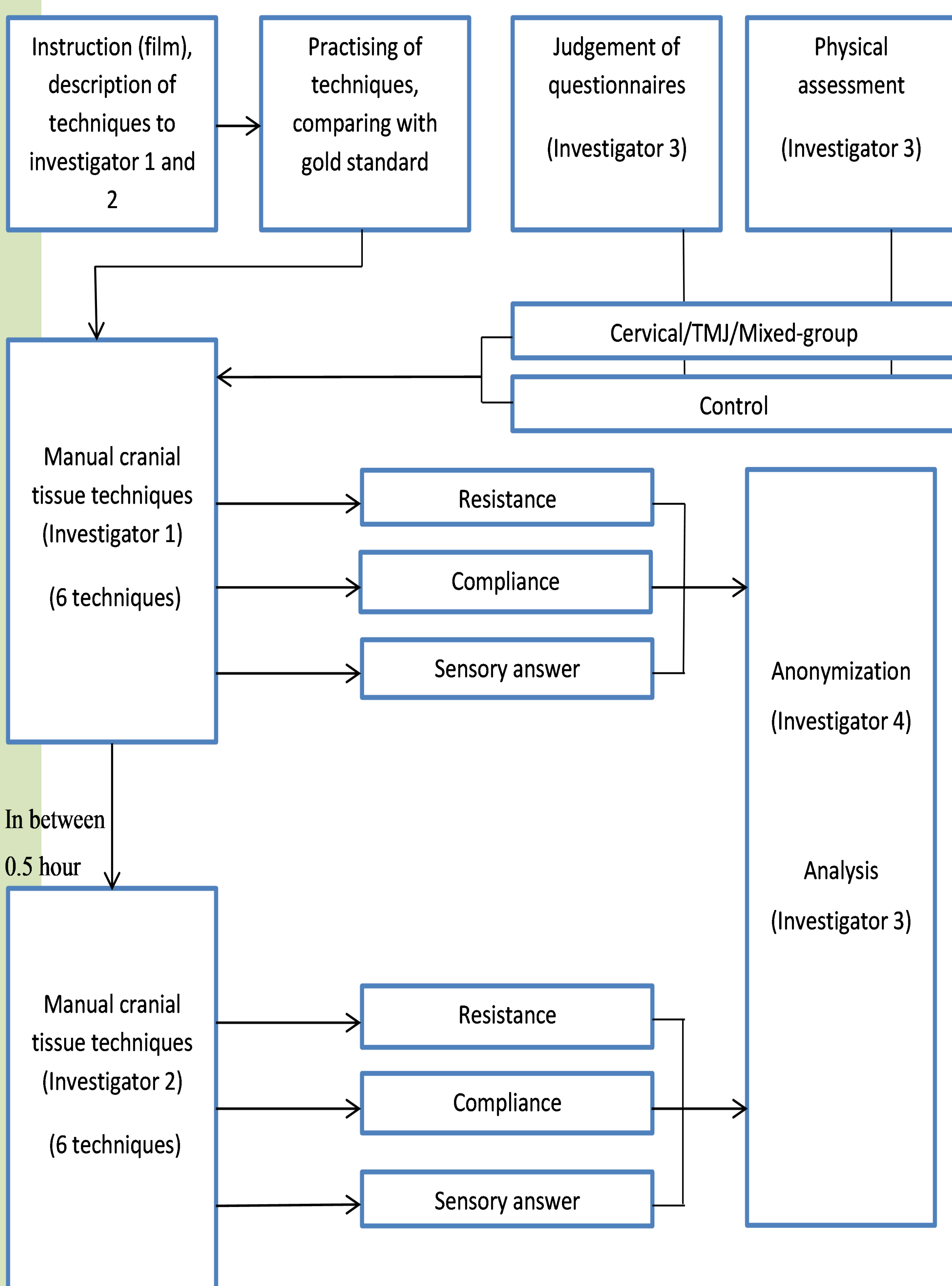


Figure 2: Flowchart study procedure

Discussion

- Intra-rater reliability was acceptable → reassessment has an acceptable value
- Clustering and combining with a hypothetically driven clinical reasoning approach
- The sensory answer can be used as reassessment
- Temporal bone techniques are useful for complaints in the TMJ region

Conclusions

- Evidence for some of the CBTT to be potentially useful in distinguishing subjects with cervical and/or TMJ dysfunction from healthy subjects.
- CBTT could be potentially integrated in the examination of participants with complaints in the cranio-facial region.

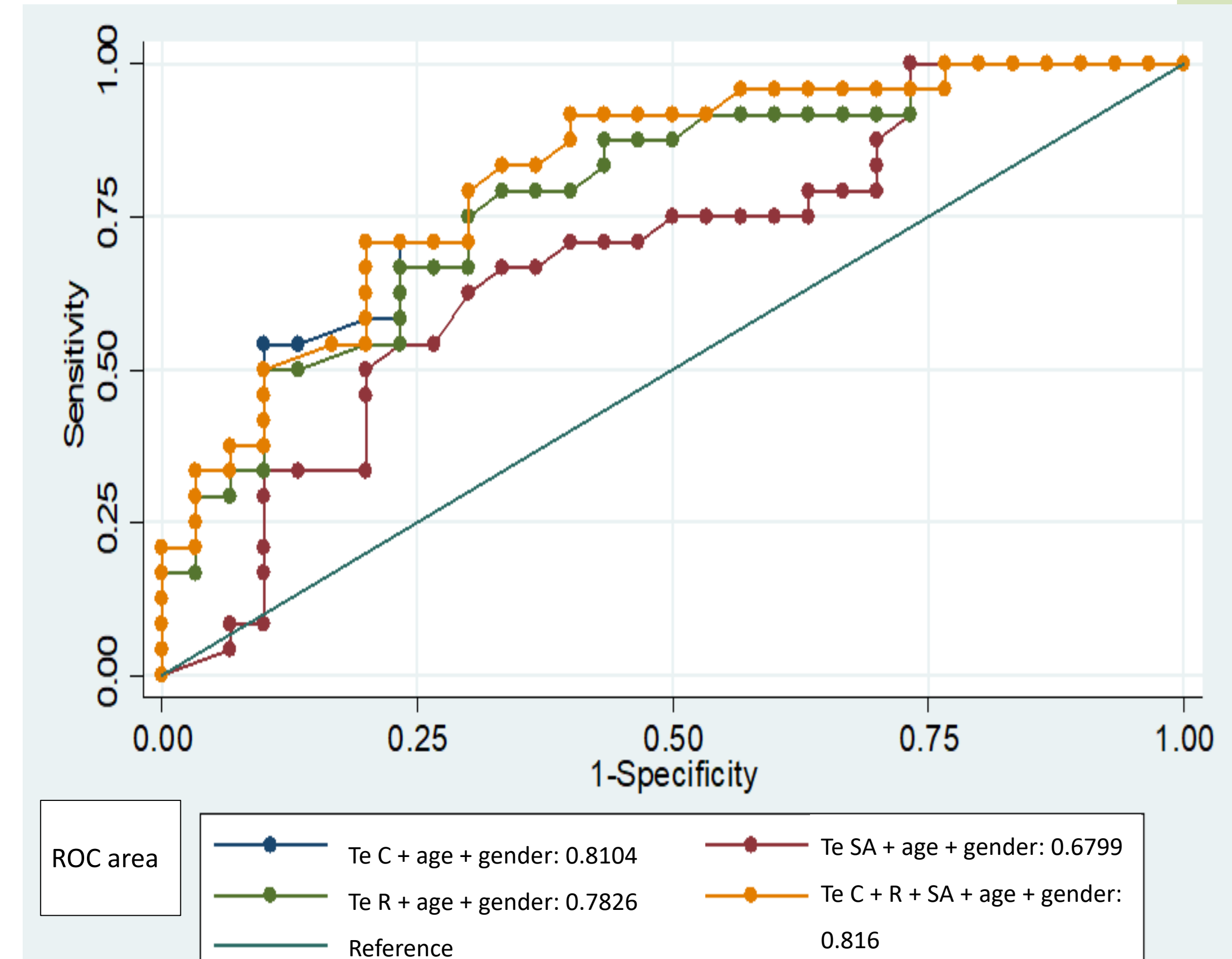


Figure 3b: ROC curve Temporal resistance, compliance and sensory answer

Abbreviations: Te= Temporal rotation; C= Compliance; R= Resistance; SA= Sensory Answer

Technique	Resistance (Agreement in %)	Compliance (Agreement in %)
O/F	66,7	60,0
O/F left occiput	58,3	53,3
O/F right occiput	66,7	60,0
O	73,3	70,0
Te/Te	55,0	53,3
O/S	53,3	51,7

Table 1: Results inter-rater reliability

