

## A German speciality, or a worldwide problem?



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The German "Bundesrechnungshof", the external financial control for the German government, writes in his annual report (Spring report No. 09) – Urgent need to study the utility of orthodontic treatment: "The statutory health insurance funds spend more than €1 billion annually on orthodontic treatment. In particular, lacking orthodontic care research gives rise to doubts about whether health insurance funds provide adequate, useful and cost-effective orthodontic treatment. We recommended collecting data on and objectively analysing information about orthodontic treatments, treatment needs and objectives as well as quality indicators and quality checks."

The German Society of Orthodontics, among others, answered that a large overjet may double the risk of dental trauma. This is shown in an evidence-based study.

A study of the orthodontic literature indeed shows a deficiency of the evidence we need to demonstrate the benefit of an orthodontic treatment more precisely. We all know that the benefits of orthodontics involves more than just the aesthetic effect. On the other hand, do patients often prefer the aesthetic benefit? We should fulfil patients' wishes.

The World Health Organization (WHO) states: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

Better orofacial aesthetics leads to better mental and social well-being. Studies show that orthodontic treatment can increase quality of life and self-confidence. We experi-

ence this positive effect daily in our practices. We should work hard to show on a scientific basis that a better aesthetician has a positive effect on health.

In my personal view the main focus should be on the medical importance of orthodontics. In particular, the functional aspect is worth studying. "At present, there is no convincing evidence against the role of occlusion as a non-redundant causal factor in the etiology of TMD<sup>1</sup>." The goal of every orthodontic treatment should be a functional occlusion without interference in the static and dynamic occlusion. Together, let us work out studies that can show what the best individual occlusion is and how we can check this occlusion in connection with the function of the temporomandibular and musculoskeletal system. Orthodontics should have a place in medicine.

Bondemark and Ruf wrote an interesting article about the study design in orthodontics. Randomised controlled trials (RCTs) are the acknowledged standard and provide the highest level of evidence. But in orthodontics we have to accept that for many orthodontic research questions it will either not be possible or sensible to conduct RCTs because of the difficulties associated with undertaking them. Cross-sectional studies, cohort studies and case-control studies have the potential for a higher external validity than RCTs. Therefore, the authors suggest establishing an "International Orthodontic Registry", in which the registration of orthodontic cases with clearly defined malocclusion characteristics would be compulsory<sup>2</sup>.

Is it a German speciality? No, it is more a worldwide problem. We should all work together to find more answers on a scientific basis – among other things, what the medical benefits of an orthodontic treatment are. The idea of an “International Orthodontic Registry” is a good approach, which we should also support for a better scientific background of aligner orthodontics.

I warmly welcome our new member of the Journal of Aligner Orthodontics, the Argentine Society of Aligner Orthodontics (SAOA). This is the eighth aligner society to subscribe to the Journal of Aligner Orthodontics for their members.



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## References

1. Alanen P. Ethics and irreversible treatments of TMD. Zeitschrift für Krianiomandibuläre Funktion 2018;10:103–115.
2. Bondemark L, Ruf S. Randomized controlled trial: the gold standard or an unobtainable fallacy? Eur J Orthod 2015;37:457–461.