Reply to: Clinical evaluation of the ability of a proprietary scoliosis traction chair to de-rotate the spine: 6-month results of Cobb angle and rotational measurements

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Dear Editor,

Thank you for the opportunity to allow us to address the comments and concerns raised by Woggon and Woggon. They raise multiple questions and concerns and therefore will address each question as it was written.

With respect to CLEAR official protocols, nowhere in its previously published course materials or online information can we find any reference, demonstration, or instruction of in-chair radiography, and specifically measurements of apical rotation. Two of the authors were previous course instructors and certified CLEAR doctors. Never have they taught this information or been instructed to do so. The Woggons go on to suggest that the chair setups used in our study figures were incorrect. We find it peculiar how they could come to this conclusion without ever seeing or evaluating the patient, and therefore determining curve pattern, curve location, etc. One of these co-authors served as the proctor for evaluating scoliosis traction chair setups, while the other co-developed this traction chair. I applaud Dr. Stitzel for stepping forward to publish this type of data, which can advance scoliosis treatment as equally as possible, in light of the fact that he co-developed it.

Next, the Woggons suggest that we somehow knew that some of these patients’ curvatures may worsen over time. Perhaps the Materials and Methods section was unclear. Because apical rotation was not measured initially when the patient was first tested in the chair, it was reasonable at the time to conclude that the chair would produce the desired effect, since Cobb angle measurements improved in the chair (and how it was taught in the CLEAR coursework). However, when some patients saw their curves progress despite intervention (or perhaps because of it) we wanted to ascertain how and why this could be happening. Patient follow-ups necessitated changes to their care plans, and this is what led to the retrospective apical rotation measurement on radiographs from several patients who had an in-chair radiograph taken.

We are as concerned for the privacy and security of health care information as the Woggons. However, an IRB review is not required when: i) the study is a records review; ii) when patients can be identified neither directly nor from any unique identifier; and iii) the patients’ reputation, employability, liability, and financial standing are not at risk. Because of the retrospective nature of the study design, we agree that application of this information to other patients is not valid. However, that was not the purpose of our study. We only attempted to show what happened in a small cohort of patients and suggest that further research be done, preferably by the CLEAR Scoliosis Institute itself.

The Woggons also point out some of the limitations of our study, with which we fully understand. It is, in fact, only a retrospective chart review. Therefore, in studies like this, the information collected cannot always be uniform and abundant. Specifically, they make reference to a lack of a full statistical analysis. In reality, we wanted to perform such analysis, however, given that only 15 patients comprised the study, performing statistical analysis on multiple variables does not provide for enough patients to calculate such a result. We are confused as to why the Woggons would point out that full statistical analysis was not done, yet they acknowledge that the small sample size prevents a power analysis. A power analysis is necessary to most accurately determine statistical and clinical significance.

Finally, with regard to the CLEAR Scoliosis Institute and its ascertainment that our data cannot be applied in any way is not correct. The data can be applied to our present cohort. It also serves as a call to action. We would like to see more research in this area, since this is the first paper to specifically look at the scoliosis traction chair and how it works, despite being taught and used clinically for nearly a decade. This study did demonstrate that some of our patients improved (specifically with lower curve apices), however, perhaps the Woggons are upset that everyone didn’t improve. We are as well. We urge Dr. Woggon, who has been the Director of Research for the CLEAR Scoliosis Institute for a decade, to publish evidence and data on this chair, since so many patients in the United States are using it presently. More evidence needs to be published to help determine which patients should and should not be using this chair, if any.

Sincerely,

Mark W. Morningstar, DC, PhD

References