SUPPLEMENTARY MATERIAL

 *Table for Supplementary Material: Anatomical regions treated by practitioners according to the International statistical classification of diseases for the 15 participants who underwent OMT, including 3 subjects who did not complete whole MRI assessments.*

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|  | Anatomical regions according to the International statistical classification of diseases |
| Participants | M99.0 Head | M99.01 Cervical | M99.02 Thoracic | M99.03 Lumbar | M99.04 Sacral | M99.05 Pelvic | M99.06 Lower extremity | M99.07 Upper extremity | M99.08 Rib cage | M99.09 Abdomen and other regions |
| OMT\_1 |  | X | X | X |  | X |  |  |  | X |
| OMT\_2 |  | X | X | X |  |  |  |  |  | X |
| OMT\_3 |  | X |  |  |  |  |  |  |  | X |
| OMT\_4 |  | X |  |  |  |  |  |  |  | X |
| OMT\_5 |  | X | X |  |  |  |  | X |  | X |
| OMT\_6 |  | X |  |  |  |  |  |  |  | X |
| DROP\_1 | X | X |  |  | X | X |  |  |  | X |
| OMT\_7 | X | X |  |  |  |  |  |  |  | X |
| OMT\_8 | X |  |  |  |  |  |  |  |  | X |
| OMT\_9 |  | X |  |  |  |  |  |  | X | X |
| OMT\_10 | X |  | X | X |  |  |  |  |  | X |
| OMT\_11 | X |  |  |  |  | X |  |  |  |  |
| OMT\_12 | X |  |  |  |  |  | X |  |  | X |
| DROP\_2 | X |  | X |  |  |  |  |  |  | X |
| DROP\_3 | X |  |  |  |  |  |  |  |  | X |

*Table for Supplementary Material: Osteopathic Manipulative Techniques used for the treatment of the somatic dysfunctions*

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| Osteopathic techniques used |
| Participants | Direct myofascial release | V-spread | Thrust techniques | Muscle Energy | Facilitated Positional Release | Myofascial release | Cranial Treatment | Visceral Manipulation |
| OMT\_1 |  |  |  | X |  | X |  | X |
| OMT\_2 |  |  | X | X | X | X | X | X |
| OMT\_3 |  |  |  |  |  | X |  | X |
| OMT\_4 | X |  |  |  |  |  |  | X |
| OMT\_5 |  |  |  |  | X | X |  | X |
| OMT\_6 | X |  |  |  |  | X |  | X |
| DROP\_1 |  |  |  | X |  |  |  | X |
| OMT\_7 |  |  | X | X |  |  | X | X |
| OMT\_8 |  |  |  |  |  | X | X | X |
| OMT\_9 | X |  |  |  | X |  |  | X |
| OMT\_10 |  | X | X |  |  |  | X | X |
| OMT\_11 |  | X |  |  |  |  | X |  |
| OMT\_12 |  |  |  |  | X |  | X | X |
| DROP\_2 |  | X | X |  |  |  | X | X |
| DROP\_3 |  |  |  |  | X |  | X | X |

*Table for Supplementary Material: Definition of Osteopathic Manipulative Treatment techniques*

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| Definition of Osteopathic Manipulative Treatment techniques |
| Direct myofascial release | A system of diagnosis and treatment which engages continual palpatory feedback to achieve release of myofascial tissues.  |
| V-spread | Technique using forces transmitted across the diameter of the skull to accomplish sutural gapping |
| Thrust techniques | An osteopathic technique employing a rapid, therapeutic force of brief duration that travels a short distance within the anatomic range of motion of a joint, and that engages the restrictive barrier in one or more planes of motion to elicit the release of restriction. Also known as thrust technique. |
| Muscle Energy | A form of osteopathic manipulative diagnosis and treatment in which the patient’s muscles are actively used on request, from a precisely controlled position, in a specific direction, and against a distinctly executed physician counterforce |
| Facilitated Positional Release | A system of indirect myofascial release treatment. The component region of the body is placed into a neutral position, diminishing tissue and joint tension in all planes, and an activating force (compression or torsion) is added. |
| Myofascial release | A system of diagnosis and treatment first described by Andrew Taylor Still and his early students, which engages continual palpatory feedback to achieve the release of myofascial tissues. |
| Cranial Treatment | A system of diagnosis and treatment by an osteopathic practitioner using the primary respiratory mechanism and balanced membranous tension |
| Visceral Manipulation | A system of diagnosis and treatment directed to the viscera to improve physiologic function. Typically, the viscera are moved toward their fascial attachments to a point of fascial balance |