GREG BRADLEY-POPOVICH, School of Exercise Science & Athletic Training, West Virginia Wesleyan College, Buckhannon, WV, 26201, KRISTY HENSON, Department of Biology & Environmental Science, West Virginia Wesleyan College, Buckhannon, WV, 26201, and JOSHUA OLACHEA, School of Exercise Science & Athletic Training, West Virginia Wesleyan College, Buckhannon, WV, 26201. Spinal strength and range of motion in adults with scoliosis.

Scoliosis often occurs during adolescence for unknown reasons. While little is known about how the curvature impacts spinal function in youth, even less is understood about the lasting ramifications once these patients become adults.

The purpose of this study is to describe functional characteristics of adults who developed scoliosis in their youth. Twenty-eight consecutive patients (mean age 42.6 (sd = 16.5); 82.1% female) with scoliosis were referred to and evaluated in an out-patient orthopedic physical therapy clinic specializing in spine care. We measured trunk strength and range of motion (ROM), while documenting other identifying characteristics such as age, gender, curve severity, pain, and curve stability. Truncal strength and ROM in the sagittal and transverse planes were measured on MedX spinal dynamometers.

Data reveal 70.4% of patients reported spinal pain at intake, and 76.2% demonstrated a clinically significant strength imbalance in torso rotation. Relative to norms, torsional weakness in at least one direction occurred in 90.9% of patients, and 45.8% of patients exhibited trunk rotation ROM restriction in at least one direction.

Adults with scoliosis present with variable amounts of truncal strength and ROM imbalance and deficits, the identification of which may be used to guide exercise prescription.