

THE EFFECT OF SCHROTH SCOLIOSIS SPECIFIC EXERCISES (SSE) ON PATIENT-REPORTED OUTCOMES (PRO) IN ADOLESCENT IDIOPATHIC SCOLIOSIS (AIS) OVER ONE YEAR

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Background:

AIS profoundly affects the lives of adolescents, necessitating investigation into the potential benefits of Schroth SSE on health-related quality of life.

Objective:

To investigate the impact of Schroth SSE on PRO in AIS over a year.

Materials and methods:

This is part of a randomised control trial involving participants diagnosed with AIS who met the Scoliosis Research Society (SRS) criteria for bracing. Participants were prospectively recruited to receive bracing only (Control) or bracing with SSE (Experimental). EuroQoL 5-Dimension 5-Level (EQ-5D-5L), SRS-7, Trunk Asymmetry Perception Scale, and Pain Numeric Rating Scale (NRS) were evaluated at baseline and 12 months.

Results:

Eighty-one AIS participants (38 Experimental, 43 Control) met the inclusion criteria, and all were prescribed underarm braces. The mean age was 12.6 ± 1.3 years, 80.2% were female, BMI was 17.49 ± 2.83 kg/m² and 33.3% had main thoracic curves with a mean major Cobb angle of $29.96 \pm 4.93^\circ$. Both groups were comparable in age, gender, pre-treatment curve magnitude, and skeletal maturity stage. No significant interaction effect was observed across all measures. However, the EQ-5D-5L index value in the experimental group improved over time, while the control group's value declined; this interaction effect was marginally insignificant ($p=0.076$). Within each group, a significant decrease in SRS-7 ($p=0.009$) and an increase in pain intensity ($p=0.005$) were noted at one year. Overall, there was no statistically significant difference in PROs between the Experimental and Control groups at baseline and one year.

Conclusion:

While SSE did not show significant interaction effects across all outcomes, the differences in SRS-7 and NRS scores within the groups suggest the need for further investigation into Schroth SSE's impact on patient experiences and pain management in AIS.