



Does a Pre-Operative Surgical Education (POSE) Program Increase Preparedness for Surgery and Reduce Post-Operative Length of Stay in Paediatric Patients undergoing Scoliosis corrective surgery?

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Background

At the Evelina London Children's Hospital (ELCH)-on the 24.09.2019, the pre-operative assessment process was rationalise to a single day including a POSE Program. The aim was to assess whether the introduction of the POSE program improved the patients' preparedness for surgery and reduced postoperative Length of Stay (LOS) for Adolescent Idiopathic Scoliosis(AIS) patients.

Methods

A pre-POSE and post-POSE questionnaire to evaluate patient's perceived preparedness for, understanding of and anxiety prior to their spinal surgery. A Likert-scale from 1 to 5 was used for each category. LOS was calculated for all AIS patients (a standardised cohort) who had their surgery in the 2 years prior and post to the-introduction of the POSE program.

Results

We collected data from 33 patients pre-SID and 22 patients post-SID. Diagnosis of these patients included Adolescent Idiopathic Scoliosis(AIS), Neuromuscular Scoliosis (NMS), Early Onset Scoliosis (EOS), Congenital Scoliosis and Spondylolisthesis. For preparedness, pre-POSE mean score was 3.27 (range 1-

5) and post-POSE mean 3.96 (range 3-5), $p=0.0206$. For understanding of surgery, pre-POSE mean was 3.18 (range 1-5) and post-POSE mean 4.23 (range 3-5), $p=0.0002$. For anxiety for spinal surgery, pre-POSE mean was 3.52 (range 2-5) and post-POSE 2.96 (range 1-5), $p=0.0933$. The LOS for AIS patients in the 2 years pre-POSE, $n=144$ patients (mean age 14.92 years, 29 Male:115 female) was a mean 4.84 days (95% CI 4.68 to 5.00 days), median 5 days, range 3 to 10 days; and in the 2 years post-POSE, $n=98$ patients (mean age 14.74 years, 26 male 72 Female), LOS was a mean of 4.56 days (95% CI 4.35 to 4.77 days), median 4 days, range 3 to 9 days, which is a significant reduction in the LOS $p=0.0015$.

Conclusion

The POSE program improved patients' preparedness and understanding of their surgery and the LOS for AIS stay was statistically significantly reduced.