

POSTER PRESENTATION

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# HRQoL assessment by SRS-30 for Chinese patients with surgery for Adolescent Idiopathic Scoliosis (AIS)

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## Objectives

SRS-30 as a health-related quality of life (HRQoL) questionnaire was established since 2003. Literatures from Asian countries on SRS-30 mainly derived from local adaptation and related validation studies. Reports on its use for measuring surgical outcomes were sparse, particularly in the Chinese community. We carried out a retrospective cohort study using SRS-30 to evaluate HRQoL for Chinese AIS adolescents before and after surgery.

## Material and methods

One hundred and four (104) Chinese AIS patients undergoing posterior spinal fusion between 2009 and 2013 were recruited. They completed SRS-30 before hospital discharge, and post-surgery questions were asked again 6 months to 3 years after discharge through phone interview. Mean scores in different domains were calculated at 3 time points, namely at the time before surgery (pre-op), immediately after surgery (discharge), and at follow-up (follow-up). Change in scores between follow-up and discharge (change after discharge) was calculated. Gender-specific descriptive analyses were summarized. Pearson's correlations on scores collected at the 3 time points and "change after discharge" were carried out. Effects of potential risk factors (age, pre-op maximum Cobb angle, curve correction after surgery in degrees) on mean domain scores were evaluated by linear regression models.

## Results

The mean age (in years) was 17.65 (male) and 15.92 (female), and 80.8% were female. There were significant

correlations between pre-op and discharge scores in function-activity ( $r=-0.47$ ,  $p=0.05$ ) in male. In female, correlations were found between pre-op and "change after discharge" in pain ( $r=-0.23$ ,  $p=0.04$ ), and satisfaction with management between pre-op and discharge ( $r=0.334$ ,  $p<0.01$ ) and pre-op and "change after discharge" ( $r=-0.47$ ,  $p<0.01$ ). Linear regression analysis showed that pre-op maximum Cobb angle was a significant predictor ( $B=-0.027$ ,  $p=0.02$ ) on satisfaction with management at follow-up in male patients. Comparing the scores at "change after discharge" in male showed degree of curve correction after surgery was a significant predictor in self-image-appearance ( $B=-0.159$ ,  $p<0.01$ ) and satisfaction with management ( $B=-0.123$ ,  $p<0.01$ ). Pre-op maximum Cobb angle was found to be another significant predictor ( $B=0.052$ ,  $p=0.02$ ) on self-image-appearance in male. In female patients, degree of curve correction after surgery was a significant predictor ( $B=0.045$ ,  $p=0.04$ ) on function-activity at "change after discharge".

## Conclusions

Gender differences were found of which female patients demonstrated correlations on pain and satisfaction with management before and after surgery, and male patients on function-activity. Degree of curve correction after surgery and pre-op maximum Cobb angle were significant predictors on function-activity, self-image-appearance, and satisfaction with management in AIS patients.

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