

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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