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

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Introduction
Health-related quality of life (HRQoL) outcome questionnaire, Scoliosis Research Society (SRS)-30, had been well received since establishment in 2003. Literatures from Asia on the use of SRS-30 mainly focused on the translation process and validation process, but not on measuring outcomes, particularly in Chinese community. We carried out a retrospective cohort study to evaluate the HRQoL of Chinese AIS adolescents with severe scoliosis after surgery.

Objectives
One hundred and four Chinese AIS patients with severe scoliosis undergoing posterior spinal fusion between 2009 and 2013 were recruited in this study. They completed SRS-30 questions before surgery, before hospital discharge, and at follow-up. Mean scores and percentages of individual scores in different domains, and composite scores in terms of subtotal and total scores were calculated referring to the scoring system. Gender-specific and period-specific descriptive analyses were described. Correlation of mean domain scores at the three time points were explored to look for any time-specific relationship. Linear regression analysis looking for potential risk factors on domain scores at different time points by gender were also carried out.

Methodology
Mean age was 16.28 at surgery, and 83.6% were female. Significant correlations between pre-op scores and scores after surgery were observed in function/activity domain (p=0.05) in males, and pain (p=0.04) and satisfaction with management (p=0.04) domains in females. No gender difference in all 5 domain scores at the 3 time points was found. Pre-op maximum Cobb angle and corrected angle were found to be risk factors on self-image, as well as satisfaction with management, in male and female patients.

**Result**
This is the first report on the evaluation of the clinical HRQoL outcomes of Chinese AIS patients with severe scoliosis after surgery. Medical professionals should pay attention to take care of the difference in personal perceptions of feelings between boys and girls. Special care should also be allocated to AIS patients, and try to arrange earlier surgical intervention.