



**Service Priorities and Programmes**  
**Electronic Presentations**

**Convention ID:** 1000

**Submitting author:** Mr chun kit jacky chan

**Post title:** Registered Nurse, Ruttonjee & Tang Shiu Kin Hospitals,

**The Chinese Student Satisfaction and Self-confidence in learning Scale is reliable and valid for Chinese**

*Jacky Chan<sup>1</sup>, Daniel YT Fong<sup>2</sup>, Jessica Tang<sup>3</sup>, PG Kan<sup>1,4</sup>, YT Wong<sup>1,4</sup>, Ben Wan<sup>1,4</sup>, Canne Yu<sup>1,4</sup>, Joshua Hui<sup>5</sup>*

*1 Accident & Emergency Training Centre, Tang Shiu Kin Hospital 2 School of Nursing, The University of Hong Kong 3 Quality and Safety Division, Hospital Authority Head Office 4 Accident & Emergency Department, Ruttonjee Hospital 5 Simulation of UCLA-Olive*

**Keywords:**

Simulation  
Psychometric  
validation  
Resuscitation  
Debriefing  
Debriefing

**Introduction**

Student Satisfaction and Self-confidence (SSSC) in Learning is a 13-item instrument designed to measure student's satisfaction (5 items) with the simulation activity and self-confidence in learning (8 items) using a 5-point scale. Two factor structure identified from the US population with reliability Cronbach's alpha of satisfaction 0.94 and self-confidence 0.87. However, we do not know if the the US-based factor structure is appropriate for the Chinese population.

**Objectives**

To evaluate the construct validity of the Chinese Student Satisfaction and Self-confidence (SSSC) for simulation education.

**Methodology**

This evaluation was performed using data collected from the Advanced Cardiac Life Support (ACLS) Provider Course in the A&E Training Centre, Tang Shiu Kin Hospital from Oct 2013 to Feb 2014. It was a cross-sectional study. The Cronbach's alpha was calculated to assess its internal reliability. Then, confirmatory factor analysis (CFA) was performed on the correlation matrix of the SCSS items. The classic goodness-of-fit  $\chi^2$  statistic and its degrees of freedom were reported. CFA model was considered to be a reasonably good fit when Root means square residual (RMSEA) is close to 0.06 or lower, comparative fit index (CFI) and non normed fit index (NNFI) are close to 0.95 or greater. Correlated errors were added as guided by the modification indice. The CFA was performed using SPSS AMOS.

**Result**

95 nurses from 13 different specialties were participated in this evaluation. There was 22 male (23.2%), 73 female (76.8%). Included 10 EN (10.5%), 75 RN (78.9%) and 10 NO / APN (10.5%). Mean experience 7.86 years , S.D.8.05 years (95% CI 6.19, 9.53). The specialty, gender, years of experience and rank have no correlation with the SSSC outcome (pearson correlation coefficient -0.109 to 0.132 for two components). Two component ceiling effect was small, both are 1.1% in two components. Floor effect was small, 8.4% for satisfaction and 5.3% for self-confidence component. The final two-factor model, resulting in satisfactory fit indices ( $\chi^2 = 88.596$ ,  $df.=60$ , RMSEA 0.071 [90% confidence interval = 0.036 - 0.101] , CFI=0.97, NNFI=0.914). The correlation between the two components was 0.606. Cronbach's Alpha was excellent, for student satisfaction was 0.922 and that of self-confidence was 0.923, similar as the finding in US. Conclusion: There was satisfactory educational and psychometric performance of the Chinese version of SSSC and it can act as the indicator for evaluating the effectiveness of simulation. The Chinese SSSC may be used in Hong Kong.