**Pilot study for a cluster randomized controlled trial of using structured debriefing to enhance learning outcome in nurses undergoing simulation-based resuscitation training**

*Jacky Chan1, Daniel YT Fong 2, Jessica Tang 3, PG Kan1,4, YT Wong1,4, Ben Wan1,4, Canne Yu1,4 , Joshua Hui 5*
*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
Debreifing
ACLS
Nursing education
retention
retention

**Introduction**
The 2010 ILCOR guideline review reported that Advanced Cardiac Life Support (ACLS) knowledge retention rate among nurses who have completed an ACLS course may rapidly decline to 37% in 3 months. More effort focusing on improving education pedagogy for ACLS is required. Debriefing has been considered as the most important step in transforming simulation into learning experience. However, its usefulness in ACLS course has not been assessed. Before we conduct a cluster randomized controlled trial for evaluation, we need to assess the feasibility of performing structured debriefing in an ACLS course.

**Objectives**
To exam the feasibility of conducting the cluster randomized control trial on the effect of GAS (Gather-Analysis-Summary) structured debriefing on nurses' competence in simulation-based resuscitation training.

**Methodology**
Subjects were recruited from the ACLS Provider Course in the A&E Training Centre, Tang Shiu Kin Hospital at Dec 2013. All consented students had GAS structured debriefing for about 5 to 10 mins and according to the debriefing guide of experimental learning theory. All of them self-completed a questionnaire which consists of 50 MCQs for assessing their knowledge, 13 items student satisfactory and self-confidence scale (SSSC) for assessing their satisfaction and confidence and 10 items of general self-efficacy scale (GSE) for assessing their self-efficacy before the start (Day 0) and by the end of the course (Day 2).

## Result

19 nurses participated in this pilot study. 89% (n=17) were female. There were 3 NO / APN, 15 RN and 1 EN. The mean year of experience was 4.95 years. The mean knowledge improvement was 12.26% (S.D. 13.49 out of 100.) The satisfactory and self-confidence improvement was 4% and 5.13% (S.D. 0.39 and 0.35 out of 5.) Self efficacy improvement was 8.95% (S.D.0.35 out of 5.) The perceived skill improvement was 18.53% (S.D. 0.72 out of 5.). 36 segments of GAS debriefing videos were recorded. The mean duration was 6 min 2 sec with S.D (3 min 2 sec) and 95% CI (5 min 2 sec, 7 min 1 sec). All instructors could complete the debriefing within 10 min. Conclusion: It is feasible to conduct the GAS structured debriefing within 10 min and there were potential improvement in learning outcomes in terms of knowledge and perceived skill were noted in the group using GAS structured debriefing. A cluster randomized controlled trial on the competency retention in 24 weeks should be feasible and is in progress.