Trauma Team Training: A pilot and evaluation of the TTT Update Course in Georgetown, Guyana

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Purpose: The TTT course is a nationally accredited trauma program in Guyana. The TTT update course allows TTT graduates to sharpen skills while focusing on teamwork capacity. This study aims to evaluate: 1) participant performance/perception of the update course 2) the reliability of two teamwork assessment tools and 3) participant perception of the ‘Assist, Perform, Evaluate, Discuss’ (APED) approach to learning. Study results will help inform the development of an official TTT Update manual for the Canadian Network for International Surgery. All data was collected during the TTT Update course piloted in Guyana in November 2011.

Methods: Participants (N=22) were divided into four groups of five-six learners and rotated through intubation and chest tube skills stations in the morning. Teams then conducted video-taped trauma resuscitations in the afternoon. Participant performance was evaluated through pre- and post-course MCQ tests. Course perception and the APED learning model were evaluated through pre- and post- descriptive, recorded, qualitative interviews (N=11) and an informal group exit interview. Two teamwork tools, the Trauma Team Assessment Tool (TTAT) and the Team Emergency Assessment Measure (TEAM) were tested for reliability using an expert and non-expert review panel. All evaluators completed each tool for the four recorded resuscitations and inter-rater reliability was determined using Intra-class correlation coefficient (ICC).

Results: Preliminary analysis of qualitative data revealed a need for the update course. Participants particularly valued the collaborative and confidence-building atmosphere of the course. Participants also preferred the APED learning approach in comparison to a non-structured facilitator driven environment. Quantitative data revealed significant improvement from pre- to post- test scores (p=0.029), while ICC values indicated that expert reviewers using the TEAM tool was the most reliable teamwork measure at 0.913 (95% CI 0.85-0.97).

Conclusions/Significance: The TTT Update course was a successful pilot that is filling a gap in trauma education in Guyana. The development of an official update course and manual is highly recommended and should ensure an optimal learning environment. The course may wish to draw on APED methodology and the TEAM tool to do so.