Teaching Crew Resource Management by Clinical Simulation – What do we learn from the participants

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Introduction
The Nethersole Clinical Simulation Training Center (NCSTC) of Pamela Youde Nethersole Eastern Hospital (PYNEH) started teaching crew resources management (CRM) by clinical simulation in June 2014 and we have carried out around 20 courses till January 2015. The CRM curriculum contains a list of basic CRM elements that need to be taught during the course. However, there is an observed gap between the CRM principle and the actual application of CRM in clinical setting as revealed by root cause analysis of some medical incidents. Such a gap might be reduced by more focused training after better understanding of the clinical application of CRM.

Objectives
We would present the findings on how clinical simulation training could gain a better understanding on clinical application of CRM.

Methodology
The participants of the clinical simulation CRM workshops are doctors and nurses of variable clinical experiences. Their behaviors in clinical scenarios and their sharing in the debriefing sessions are excellent reflections about the clinical application of CRM elements. The investigators, who also act as debriefers in the sessions, have interpreted these findings under various headings of CRM elements.

Result
Teaching CRM in a simulation setting allow bidirectional flow of ideas so some new ideas could be generated through the interaction. They are summarized below:
Leadership: - Clinical leaders with medical background are strong in making decision
but need some improvement in communication with team members. - Leaders tend to engage in head-down work when there is an unexpected situation change. Clinical leaders should be trained to delegate roles including transfer of leadership. - In the presence of a doctor, nurses are reluctant to take a leader role and reluctant to play an active part. Nurses play the CRM roles better in the absence of a doctor. Communication - Nurses are more readily communicate with doctors in a closed loop fashion than with other nurses and their nurse supervisors. - Effective close-loop communication is lacking if the teammates are not familiar persons. - Ineffective verbal communication is the commonest cause of information lost in simulated critical situation. So communication skills between colleagues should be a focus of future training. Assertion - Participants, especially junior staff, are reluctant to be assertive due to bad working experiences in the past. They are only willing to be assertive to persons they like. In contrary to the past believe that junior staff should be assertive, we now realized that assertion is also a lesson for senior and top management staff who should know how to create an assertive working culture. Briefing - iSBAR: It is difficult for nursing staff to verbalize recommendation to a medical staff and the reason behind might be traditional belief. Important message may be missed if recommendations are not well pronounced. Nurses should be trained to play a more active role in the suggestion of investigation and treatment for a medical condition. Clinical simulation not only allows participants to learn by experience, it also educates the facilitators on their teaching contents be interacting with the participants in the debriefing session. In this way, teachers could gain a deeper understanding on how CRM elements play a role in clinical setting so as to shift the focus of training towards the weak points.