THE IMPACT OF AN IN SITU SIMULATION INTERVENTION ON INTERPROFESSIONAL COLLABORATION IN CRITICAL CARE: A STUDY PROTOCOL.

Villemure, Catherine1; Tanoubi, Issam2; Georgescu, L. Mihai2; Dubé, Jean-Nicolas3; Houle, Julie4

1Intensive Care Unit // Nursing Sciences, Centre de santé et de services sociaux de Trois-Rivières - Centre hospitalier affilié régional AND Université du Québec à Trois-Rivières, Trois-Rivières, Canada; 2Anesthesiology, Hôpital Maisonneuve-Rosemont, Montréal, Canada; 3Intensive Care Unit, Centre de santé et de services sociaux de Trois-Rivières - Centre hospitalier affilié régional AND Université du Québec à Trois-Rivières, Trois-Rivières, Canada; 4Nursing, Université du Québec à Trois-Rivières, Trois-Rivières, Canada

Introduction: Patient safety is a fundamental health care principle (WHO, 2014). Due to potentially life-threatening conditions, critical care frequently requires a prompt team intervention (Reader, 2007). There are potentially high risks of errors. Miscommunication among professionals during critical events may affect the patient outcomes (Rothschild, 2005). On the other hand, improved teamwork can prevent adverse events (Manser, 2009). Effective communication and teamwork are central components of interprofessional collaboration (IPC) (Chiocchio, 2012). For patient safety improvement, developing strategies to enhance IPC among critical care workers should be prioritized (Kohn, 2000). In Situ Simulation (ISS) is an emerging strategy mostly used in health care for competencies development enhancing patient safety. It’s a simulation-based training taking place in the actual patient unit environment. However, ISS’ literature is mostly at descriptive and exploratory levels.

Objectives: The primary aim of this study is to evaluate the impact of an ISS intervention on IPC during critical events among a professional care team. Professionals’ satisfaction and self-efficacy will be evaluated as secondary outcomes.

Methods: A quasi-experimental study, pretest and posttest design with a paired control group. Variables. The independent variable consists of a 5.5-hour team training intervention based on the crisis management principles, given by simulation experts. The scenarios will be composed of typical deteriorating cases encountered in critical care settings, and followed by a debriefing period. IPC, professionals’ satisfaction and self-efficacy are dependant variables, which will be evaluated by a self-reported questionnaire. The participants of both experimental and control groups will have to answer the questionnaire at three periods of time: before the intervention, immediately after, and 6 to 8 weeks later. Population and Sample. A convenience sample will be recruited among the operative room and recovery unit teams of two university Hospitals. The intervention is addressed to healthcare professional of the regular perioperative team: beneficiary attendant, nurses, respiratory therapists, residents and anesthesiologists. The anticipated total of participants is 42 per group. The control group will receive the training after the study. Statistical Analysis. Data analysis will be quantitative, using the SPSS analysis software. Descriptive analyses will be used to present the sample’s characteristics and repeated measures ANOVA will be used to compare both groups. A linear mixed model will also be used to evaluate the interaction between groups and time.

Results: The results of this study should be available by fall 2015. We hypothesis that the experimental group will have an improved IPC immediately after the training, compared with the
control group. They will also be more satisfied at work and improve their self-efficacy. Finally, we believe the training will still have positive effect at the long-term evaluation (after 6 to 8 weeks).

**Conclusion:** Potential Implications. This study aim to evaluate the impact of an ISS intervention on IPC during critical events. It will contribute to the body of knowledge on IPC and the results will justify the use of ISS for professional development among critical care workers, in order to enhance patient safety.