High-fidelity simulation and continuous training of healthcare professionals toward a pedagogic model to enhance patient healthcare.

Secheresse T.1,2, Usseglio P.1, Jorioz C.1, Mampe Armstrong H.1, Lesage P.1, Hablot D.1 and CEnSIM pedagogic group

1. CEnSIM - Centre d’Enseignement par SIMulation - C.H. de Chambéry 2. Univ. Grenoble Alpes - Laboratoire des Sciences de l’Education

INTRODUCTION
High-fidelity simulation is an essential element in the continuous training of healthcare professionals. Its use is associated with improved practitioner knowledge, skills and behaviours. However the benefits of high-fidelity simulation in the treatment of the patient are only considered to be moderate (Cook et al., 2011). Therefore, we asked how the simulation could be used so that it would positively impact healthcare practices and improve patient outcomes.

OBJECTIVE
Propose a pedagogical model resulting from the above reflection and the modalities of its implementation.

METHODOLOGY
Three factors were considered in the construction of our pedagogical model:
- The contribution of cognitive psychology about learning and in particular the importance of the sequence "contextualization - decontextualization - recontextualization" for the integration of knowledge in long-term memory.
- The importance of inter professional education both in terms of psychological fidelity and for the management of human factors (Hammick et al., 2007)
- The need to integrate the simulation at the medical department level and not at the individual level to provide uniformity of practice and improve the quality of healthcare.

RESULTS
The proposed pedagogical model integrates the 3 elements of reflection, into the form of simulation sessions which are included in a program of continuous training. Each session is characterized by :
1. - Several different simulations, usually 3, conducted by the same inter professional team for a given theme: contextualization.
- Each simulation is followed by a debriefing: decontextualization.
- This repetition sequence allows participants to immediately address the issues discussed in the debriefing of the previous simulation: recontextualization.
2. These sessions are conducted by inter professional teams from the same unit.
3. The simulation sessions are included in a training program with the goal of having the entire unit’s staff benefit from these workshops.

Since 2010, more than 450 healthcare professionals have been trained with this model. A high level of satisfaction is scored by participants (M global satisfaction= 4.9/5). Two preliminary studies have shown the effectiveness of this model in terms of learning and behaviour (Secheresse et al, 2011) and in terms of self-efficacy (Secheresse et al., 2012).

CONCLUSION
The originality of this model is to combine a socio-cognitive approach which focuses on the psychological processes involved in learning and an approach centered on the healthcare organization. Future studies should focus on clarifying the effectiveness of this model on the quality of healthcare and the elements of high-fidelity simulation involved in the transfer of learning in order to optimize the construction of simulation sessions.