

# Debriefing of Virtual Patient Encounters: Systematic Collection of Nursing Students Clinical Reasoning Activities

Carina Georg<sup>1,2</sup>, Elisabet Welin Henriksson<sup>2</sup>, Maria Jirwe<sup>2</sup>, Johanna Ulfvarson<sup>2</sup>, Nabil Zary<sup>1</sup>

1. Department of Learning, Informatics, Management and Ethics; Karolinska Institutet
2. Department of Neurobiology, Care Sciences and Society; Karolinska Institutet

**Background.** Studies have shown that nursing students have challenges in translating and applying their theoretical knowledge in a clinical context. Virtual patients (VPs) have been proposed as an adequate learning and assessment activity to improve clinical reasoning. Although feedback and debriefing are essential aspects to foster learning in medical simulation, few studies have explored systematic and theory anchored ways of supporting feed forward and debriefing based on student activity collected in a systematic manner.

**Objective.** The aim of this study was to develop a systematic approach for collecting the nursing students' clinical reasoning artifacts as they encounter virtual patients.

**Method.** The Outcome-Present-State-Test (OPT) model for clinical reasoning was used as the starting point since it is an internationally common model used by faculty to plan for and design learning activities in nursing education (Pesut & Herman, 1999). Two virtual patients were developed using the virtual patient nursing design model vpNDM (Georg & Zary, 2014). Nighty-five participants from undergraduate nursing education encountered the VPs and the intervention was composed of the exploration of methods for tracking and collecting the participants' clinical reasoning artifacts.

**Results.** An instrument to collect the students' clinical reasoning was developed. Artifacts are collected during the whole virtual patient encounter. The aspects collected are related to clinical judgment, nursing action, outcome and present states, cue logic and the client in context. The empirical demonstrated that the instrument was able to collect and expose quantitative and qualitative aspects of the students' clinical reasoning.

**Conclusions.** A method to systematically collect aspects of clinical reasoning during a virtual patient driven learning activity would allow purposeful feed forward and provide the necessary information for constructive debriefing sessions.