Promoting students’ and professionals’ shared learning by combining Journal Clubs and Simulation - an innovative approach

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Theme: The future of health care

Abstract

Background: Professionals and students need theoretical knowledge and clinical skills to produce high quality care. Combining journal clubs and simulation in professionals’ and students’ shared learning is an innovative approach implemented in the NÄYTKÖ-project. Aim: To pilot the combination of journal clubs and simulation in professionals’ and students’ shared learning.

Method and material: Journal clubs have been a part of the NÄYTKÖ-project since 2009 and were combined with simulation in 2013. The participants in the pilot consisted of professionals (n=20) from different fields of nursing. Students (n=8) participated in implementing the pilot as part of their final thesis. Results: Combining journal clubs and simulation was seen to promote theoretical knowledge as well as transition of knowledge into clinical skills. The combination was deemed suitable both for basic nursing education and professionals’ continuing education.

Conclusion: Combining journal clubs and simulation are recommended as an innovative approach to promote theoretical knowledge and transition of knowledge into skills. International research collaboration is sought to develop internationally valid, effective learning methods that promote theoretical knowledge and transition of knowledge into clinical practice in different fields of education.
**Background:**

Professionals working in the health care field are obligated to provide evidence based practice (Finnish Act on the Status and Rights of the Patient 785/1992, Finnish Health Care Act 1326/2010). Evidence based practice (EBP) consists of three essential components: 1. best available theoretical knowledge, 2. strong clinical skills and 3. the preference of the patient or customer. Providing EBP requires skills in critical thinking, setting relevant clinical questions, researching and evaluating knowledge, implementing evidence based practice in collaboration with customers and others involved in the care process, as well as competences in evaluating outcomes (Levin 2006,).

Skills that are required for producing EBP, need to be acquired on an ongoing basis (Goodfellow 2004, Fink et al. 2005, Levin 2006) and innovative learning methods to be employed. Journal clubs and simulation, have been suggested as a way to promote these competences (Fink et al. 2005, Laaksonen et al. 2012a, 2012b, 2013a). It has been suggested that journal clubs promote critical thinking, setting clinical theoretical questions, searching and evaluating data and the implementation of scientific knowledge into clinical practice (Fineout-Overholt, 2006, Steenbeek et al. 2009, Laaksonen et al. 2012a, 2012b, 2013a). Simulation has been reported to promote transformation of theoretical knowledge into skills (Cant & Cooper, 2010, Berragan, 2011, Ricketts, 2011). The responsibility to ensure that professionals are competent to produce EBC rests both on organisations providing care as well as organisations providing education in the health care field..

The NÄYTKÖ–project is an example of a collaborative effort by a health care service (The City of Turku’s Welfare Division) and education (Turku University of Applied Sciences (TUAS), faculty of health care) provider, to ensure the skills levels of clinical practitioners. The project follows an innovative pedagogical approach (Lind 2007, Penttilä et al. 2009, Kairisto-Mertanen et al. 2009) and focuses strongly on developing clinical practice and the working life. Students, professionals and teachers work in close collaboration as partners and innovative learning methods have been implemented throughout the whole project (Laaksonen et al 2012a, 2012b, 2013a, 2013b).

Journal clubs have been part of the NÄYTKÖ–project since the project’s outset in 2009. The results of implementing journal clubs in students’ and professionals’ shared learning suggest that nurses perceive journal clubs as a forum for stimulating discussion, bringing new perspectives and collaboration to their clinical field and practice. Students perceive journal clubs as being quite a demanding and time consuming learning method but also as a method that develop their competences in researching, evaluating and discussing scientific data and implementing their
knowledge into clinical questions. (Laaksonen et al. 2012a, 2012b, 2013a). In 2013, journal clubs were combined with simulation (Laaksonen et al. 2013b) in the NÄYTKÖ–project to add more substance to the transition of strong theoretical knowledge into clinical skills.

**Aim**
The aim was to pilot the combination of journal clubs and simulation in professionals’ and students’ shared learning.

**Method and material**
In spring 2013 a six (6) phase journal club model that previously had been developed and tested in the NÄYTKÖ–project (Laaksonen et al. 2012a, 2012b, 2013a) was combined with a new, seventh phase, simulation (picture 1). The professionals that participated in the pilot consisted of nurses (n=20) working in different health care settings at the City of Turku’s Welfare Division. The students’ (n=8) were implementing the pilot as part of their final thesis.

The main subject of the journal clubs and simulation (pilot) was developing the care of patients with high blood pressure. The specific topics of the journal clubs were: 1. Discussing sensitive issues and consumption of alcohol (Laine, S. & Laurila, K. 2013); 2. Patient education in medication of patients with high blood pressure (Levonen, R. & Lamppu, A. 2013); 3. The right blood measuring technique (Leppänen, I. & Läntinen, A. 2013); and 4. Simulation as a learning method in developing care (Lahtinen, R. & Qvist, M. 2013).

The journal clubs were implemented following the six phases (image 1.) There were two separate journal club meetings arranged that each lasted for 1.5 hours. The simulation was performed within a month of the journal club meetings.

In the seventh phase, the simulation, roles of the participants were: 1. the patient (a simulation doll), 2. the nurse and 3. the observer. The participants were told to perform a high quality blood pressure measurement situation. The observer used a check list to assess if the actor playing the role of the nurse, managed to perform the essential features of a high quality blood pressure measurement situation. Also the consistency between the blood pressure values reported by the nurse and the value fed into the simulation doll was estimated.
A semi-structured questionnaire was used to collect preliminary data relating to the nurses’ perceptions of the pilot. Perceptions of the students were not collected in the pilot as the students’ participated in implementing the pilot. The data collected was analysed using content destruction.

**Results**

Journal clubs were perceived as a way of supporting previous knowledge, advantageous recapitulation and generating new theoretical knowledge. The journal clubs related to patient education in medication and the correct technique for measuring blood pressure, were mostly perceived as supporting previous theoretical knowledge and important and advantageous replication. The journal club related to discussing sensitive issues and the consumption of alcohol was perceived as bringing new knowledge to several of the participants and most of the participants reported that they would be interested in implementing the new, theoretical knowledge, into their clinical practice. Also the journal club regarding simulation as a method for developing care was perceived to contain lots of new and interesting theoretical knowledge. All journal clubs were perceived as supporting the development and implementation of evidence based care.
The combination of journal clubs and simulation was perceived by the participating nurses as a method to promote the transition of theoretical knowledge into clinical skills. Simulation was perceived as a new, interesting method by the nurses and the combination of journal clubs and simulation as a suitable method both for basic nursing education as well as professionals’ continuing education.

**Discussion**

The results of this pilot are in line with previous suggestions that journal clubs support the dissemination of new, research-based theoretical knowledge to clinical practitioners and support the development and implementation of evidence based practice (Fink et al. 2005, Fineout-Overholt, 2006, Steenbeek et al. 2009, Laaksonen et al. 2012a, 2012b, 2013a). Also the results of this pilot regarding the perceptions of simulation as a means of supporting the transition of theoretical knowledge into clinical skills as well as simulation being an interesting and motivating method to learn, is in line with previous studies (Cant & Cooper 2010, Berragan, 2012, Ricketts, 2012).

Future research is recommended to test the combination of journal clubs and simulation as reported in the pilot. Also students’ and teachers’ perceptions should be assessed in the future and more sophisticated assessment tools for assessing knowledge as well as skills should be implemented. Future research combining journal clubs and simulation in different educational programmes and international settings is recommended as internationally valid, effective and important learning methods that promote theoretical knowledge as well as support the transition of knowledge into practice.

Ethical guidelines were followed throughout the process of the pilot. All participants gave their written consent to participate in the pilot. No ethically sensitive issues were identified in this pilot.

**Conclusion:** Combining journal clubs and simulation can be recommended as an innovative approach to promote theoretical knowledge and the transition of knowledge into skills. Further testing is desired to combine journal clubs with simulation and international research collaboration is sought to develop internationally valid, effective learning methods that promote theoretical knowledge and support the transition of knowledge into clinical practice in different fields of education. International collaborators are warmly welcomed to join the NÄYTKÖ–project and participate in further developing and testing combinations of innovative methods.
References


Laaksonen C, Paltta H, von Schantz ML, Ylönen M, Soini T. 2013b. NÄYTKÖ –project. Combining journal clubs and simulation for collaborative learning between students and


