

VP-Based Final Examination – a model to reach advanced level standards for the degree of Paediatric Nursing in Sweden

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Abstract and Objective

Web-SP is a system for virtual patient, developed at Karolinska Institutet (KI) in Sweden. In this study, we examine Web-SP cases for assessing paediatric nursing students. To investigate the possibility of using Web-SP for assessing clinical reasoning skills and to study students acceptance and to determine whether the skills required of experienced paediatric registered nurses could be adequately assessed by the system. The intervention included a two-part of exams. The results show high levels of acceptance of the Web-SP as an examination method. Students also thought it was a good way to practice their clinical skills. Findings have relevance in the development of clinical information systems where clinical decision making is important.

Keywords:

Virtual patient, Nursing education, Clinical reasoning

Introduction

Web-SP is currently used for training in medicine and related disciplines, at many universities worldwide. Web-SP cases include patient interviews, physical exams, lab tests, diagnosis, therapy and/or clinical decision-making, as well as a detailed feedback section. Web-SP keeps track of the individual student's performance and it has therefore been suggested to use the system for assessment of clinical reasoning. In this study, we examine Web-SP cases for assessing paediatric nursing students, written by students or teachers. To investigate the possibility of using Web-SP for assessing clinical reasoning skills, to study Student acceptance and to determine whether the skills required of experienced paediatric registered nurses could be adequately assessed by the system.

Methods

Student-activated intervention, cohort 1

The theoretical part of the examination is clinically oriented, and aims to assess the students' ability to reflect in clinical situations, irrespective of place, as long as the duties correspond to the field of competence and qualifications of advanced paediatric nurse. This is a regular exam, in previous classes based in paper cases. As a first step in the examination, the paediatric nursing students write a paper describing actual clinical patient scenarios from their internship at a children's

ward. Before the exam, the students had the ability to test other cases in Web-SP. Twelve cases were selected by the tutor (paediatric nurse) developed and implemented in Web-SP. These cases were reviewed by a paediatrician. The class was divided into three groups, and each group tested individually four different cases. Criteria for selection were that the student should not have created the case that was tested, and in each group different paediatric disciplines cases had to be represented. Students had three hours to work on the cases. They were asked to fill out a questionnaire after the exam. The questionnaire was constructed for the purposes of this study, and also allowed the addition of comments.

Intervention, cohort 2

The tutor constructed four cases for the neonatology class. The paediatric nursing students individually had three hours to solve the cases. This is a regular exam, in previous classes based in paper cases. Before the exam, the students had the ability to test other cases in Web-SP. The same questionnaire was used to evaluate this exam.

Results

The paper examines paediatric nursing student acceptance of Web-SP for assessment on a paediatric nursing programme. Our results show high levels of acceptance of the Web-SP as an examination method. The students found the cases realistic and engaging. They also thought it was a good way to practice their clinical skills. Most students supplied correct diagnoses and made adequate clinical decisions. However was it a wide range of capacity to motivate the clinical reasoning process for clinical- decision making.

Conclusions

The results of this study are applicable for many areas within healthcare education, and can most certainly be transferred into medicine and other healthcare programmes in many countries and settings. However, the findings may also have relevance in the development of clinical information systems where clinical decision making is important.

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